

SHERIFFDOM OF SOUTH STRATHCLYDE DUMFRIES AND GALLOWAY

UNDER THE

FATAL ACCIDENTS AND SUDDEN DEATHS INQUIRY (SCOTLAND) ACT

1976

DETERMINATION

BY

SHERIFF PRINCIPAL BRIAN A LOCKHART
IN RESPECT OF THE INQUIRY INTO THE DEATHS OF

Annie (Nan) Stirrat

Julia McRoberts

Robina Worthington Burns

Isabella MacLeod

Margaret Lappin

Mary McKenner

Ellen (Helen) Veronica Milne

Helen (Ella) Crawford

Annie Florence Thomson

Margaret Dorothy (Dora) McWee

Thomas Thompson Cook

Agnes Dennison

Margaret McMeekin Gow

Isabella Rowlands MacLachlan

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CHAPTER 1: INTRODUCTION AND SCOPE OF THE INQUIRY

1. This is an Inquiry instituted by the Lord Advocate under the discretionary provisions of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 (“the 1976 Act”). On 31 January 2004 a fire broke out at Rosepark Care Home, 261 New Edinburgh Road, Uddingston. Following the fire, ten residents of the home were found dead at the scene. Four residents were rescued alive, but subsequently died in hospital.

2. In July 2009 a petition was presented by the Procurator Fiscal under the 1976 Act intimating that the circumstances of the deaths were such as to give rise to serious public concern and that it appeared to the Lord Advocate to be expedient in the public interest that an Inquiry be held into the circumstances of those deaths.

3. Evidence was heard over 141 days between 16 November 2009 and 12 August 2010. Evidence was led from a total of 212 witnesses, at the GLO Centre, Motherwell which had been specially adapted to accommodate this Inquiry.

4. Parties were represented at the Inquiry as follows:

The Lord Advocate: James Wolffe, QC, Advocate Depute and Robert Weir, Advocate Depute

Thomas Balmer, Mrs Ann Balmer and Mr Alan Balmer: by P G McBride QC

Strathclyde Fire & Rescue Service: P Wade, Solicitor Advocate

NHS Lanarkshire: G Coll, Advocate

The Care Commission of Scotland: D Thomson, Solicitor Advocate

North Lanarkshire Council: Ms R McCormick, Solicitor

Scottish Ministers: D Ross, Advocate

George Muir: Ms C McMenamin, Solicitor

Alexander Ross: C Marney, Advocate

Sarah Meany: A Murphy, Advocate

Isabel Queen: M Blessing, Advocate

Brian Norton: Ms E Toner, Advocate

Irene Richmond: G. Whyte, Solicitor

Yvonne Carlisle: Ms P Thornton, Advocate

Joseph Clark: Ms A Taggart, Advocate

James Reid: Ms G Ross, Advocate

1. Section 6(1) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 (“the 1976 Act”) provides that at the conclusion of the evidence and any submissions thereon the sheriff shall make a determination setting out the following circumstances of a death as far as they have been established to his satisfaction:

- “(a) where and when the death and any accident resulting in the death took place;
- (b) the cause or causes of death and any accident resulting in the death;
- (c) the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided;
- (d) the defects, if any, in any system of working which caused or contributed to the death or any accident resulting in the death; and
- (e) any other facts which are relevant to the circumstances of the death.”

“Accident” has been described, in the context of the 1976 Act, as “an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury”.

2. At the conclusion of the evidence, I was of the opinion that it was impractical to have oral submissions in view of the number of parties and the number and complexity of the issues involved. The Crown accepted my suggestion that it was for the Crown, who had sought this Inquiry, to produce draft findings in fact and proposed findings that I should make in terms of section 6(1) of the 1976 Act. The Crown set out the factual basis for the proposed findings in a series of narrative chapters and then set out their proposals on the various issues which fall to be determined by statute. I am very grateful to the Crown for the very detailed submissions which they produced. They gave a structure to the procedure and allowed parties to indicate, in their responses, where there were issues which required to be decided by me.

3. Detailed draft written submissions were lodged on behalf of the Crown and intimated to all interested parties on 19 November 2010. Interested parties lodged their draft written submissions in answer and intimated them to all other parties on 10 January 2011. Thereafter I allowed a period of adjustment to enable parties to adjust their original submissions in light of submissions made by other parties. The adjusted submissions were lodged on 7 February 2011. A public hearing to finalise

submissions took place in Hamilton Sheriff Court on 17 February 2011. I took the view that, as this was a public Inquiry, it was appropriate that parties' final submissions be published. They are set out in the Appendix to this Determination.

4. It is appropriate that I set out my approach as to how the terms of the subsections of section 6(1) should be interpreted and applied in my determination. My function is to examine and analyse the evidence with a view only to setting out in my Determination the circumstances referred to in section 6(1), insofar as that can be done to my satisfaction.

5. It is well settled that a fatal accident inquiry is not a proper forum for determination of questions of criminal or civil liability. In *Black v Scott Lithgow Ltd* 1990 SLT 612 at 615 Lord President Hope said in relation to section 6(1) of the 1976 Act:

“There is no power in this section to make a finding as to fault or to apportion blame between any persons who might have contributed to the accident. This is in contrast to section 4(1) of the 1895 Act, which gave power to the jury to set out in its verdict the person or persons, if any, to whose fault or negligence the accident was attributable. It is plain that the function of the sheriff at a Fatal Accident Inquiry is different from that which he is required to perform at a proof in a civil action to recover damages. His examination and analysis of the evidence is conducted with a view only to setting out in his determination the circumstances to which the subsection refers, insofar as this can be done to his satisfaction. He has before him no record or other written pleading, there is no claim of damages by anyone and there are no grounds of fault upon which his decision is required.”

6. Different considerations are relevant in deciding what determination, if any, is to be made under the various sub-paragraphs of section 6(1) of the Act. In considering the time, place and cause of the death in terms of sections 6(1)(a) and 6(1)(b) the court simply exercises its traditional fact finding functions. In relation to sections 6(1)(c) and 6(1)(d) I respectfully agree with Sheriff Kearney in his determination in relation to the death of James McAlpine, issued on 17 January 1986, referred to at paragraph 8-99 of the third edition of *Sudden Death and Fatal Accident Inquiries* by Ian Carmichael. Sheriff Kearney there observes:

“In deciding whether to make any determination (under s. 6(1)(d)) as to the defects, if any, in any system of working which contributed to the death or any accident resulting in the death the court must, as a precondition to making any such recommendation, be satisfied that the defect in

question did in fact cause or contribute to the death. The standard of proof and the rules of evidence (apart from the consideration that evidence did not require to be corroborated) is that applicable to civil business (1976 Act, s.4(7)) and accordingly the standard of proof is that of the balance of probabilities.

(b) in relation to making a finding as to the reasonable precautions, if any, whereby the death or any accident resulting in the death might have been avoided (s.6(1)(c)) it is clearly not necessary for the court to be satisfied that the proposed precaution would in fact have avoided the accident or the death, only that it might have done, but the court must, as well as being satisfied that the precaution might have prevented the accident or death, be satisfied that the precaution was a reasonable one.”

Sheriff Kearney goes on to say:

“The phrase “might have been avoided” is a wide one which has not, so far as I am aware, been made the subject of judicial interpretation. It means less than “would on the balance of probabilities have been avoided” and “rather directs one’s mind to the direction of lively possibilities.”

Sheriff Kearney’s observations and interpretation of the phrase “might have been avoided” have been referred to and adopted with approval in many determinations since then. I also adopt the view which he expresses in the *James McAlpine* determination in relation to section 6(1)(e):

“The provisions of section 6(1)(e) are very widely stated and, in my view, entitle and indeed oblige the court to comment on and, where appropriate, make recommendations in relation to any matter which has been legitimately examined in the course of the Inquiry as to a circumstance surrounding the death, if it appears to be in the public interest to make such comment or recommendation.”

7. I adhere to the views I expressed in my determination in the Fatal Accident Inquiry arising out of the railway accident at Newton which I issued at Glasgow Sheriff Court on 20 July 1993:

“In my opinion a Fatal Accident Inquiry is very much an exercise in applying the wisdom of hindsight. It is for the sheriff to identify the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided and the defects, if any, in any system of working which contributed to the death or any accident resulting in the death. The sheriff is required to proceed on the basis of the evidence adduced without regard to any question of the state of knowledge at the time of the accident. The statutory provisions are concerned with the existence of reasonable precautions or defects in the system at the time of the accident or death and are not concerned with whether they could or should have been recognised. They do not relate to the question of foreseeability of risk at the time of the accident. The statutory provisions are widely drawn and are intended to permit retrospective

consideration of matters with the benefit of hindsight and on the basis of the information and evidence available at the time of the Inquiry. There is no question of the reasonableness of any precaution depending on the foreseeability of risk. The reference to reasonableness relates to the question of availability and suitability or practicality of the precautions at the time of the accident resulting in death.”

8. I respectfully agree with the conclusions reached by Sheriff Fiona Reith, QC in her determination relating to the death of *Sharman Weir* issued on 23 January 2003:

“In my opinion, the purpose of a fatal accident inquiry is to look back, as at the date of the inquiry, to determine what can now be seen as the reasonable precautions, if any, whereby the death might have been avoided, and any other facts which are relevant to the circumstances of death ... The purpose of the conclusions drawn is to assist those legitimately interested in the circumstances of the death to look to the future. They, armed with hindsight, the evidence led at the inquiry, and the determination of the inquiry, may be persuaded to take steps to prevent any recurrence of such a death in future.”

The question of reasonableness is directed to the precaution which is identified. The issue is not whether an individual or an organisation behaved in a reasonable or unreasonable way, but whether or not there is a precaution which is a reasonable one and which might have made a difference.

9. My predecessor Sheriff Principal J S Mowat, QC opined in his determination on the Lockerbie Fatal Accident Inquiry:

“I have come to the view that any finding under section 6(1)(c) should avoid, so far as possible, any connotation of negligence. Accordingly, it should not contain any indication as to whether any person was under a duty either at common law or under statute to take a precaution identified in the finding ...”

10. My findings under section 6(1) of the 1976 Act are set out in Chapter 2. In Chapter 2A I provide an index and in chapter 2B I detail my findings.

11. My conclusions from these findings under section 6(1) of the 1976 Act – I set out my conclusions at Chapter 2C.

12. The material on which I base these findings and conclusions. In Chapters 3 to 43, using the format produced by the Crown and responded to by all the interested parties, I set out the facts which I have found proved to my satisfaction. On occasions

when I consider it to be appropriate, I have adopted the submissions of the Crown or of one or more of the interested parties. A consideration of that material provides the factual basis for my findings under section 6(1) of the 1976 Act which I set out in Chapter 2B.

13. My findings in terms of section 6(1)(c), (d) and (e). In Chapter 44 I explain my findings in terms of section 6(1)(c) (which are summarised in Chapter 2B) regarding the reasonable precautions which I consider might have avoided the deaths or any accident resulting in the deaths. In Chapter 45 I explain my findings under section 6(1)(d) (which are summarised in Chapter 2B) regarding the defects, if any, in any system of working which I consider caused or contributed to the deaths or any accident resulting in the deaths. In Chapter 46, where appropriate, I explain my findings in terms of section 6(1)(e) of the 1970 Act (set out in paragraph 2B hereof) of any other facts which I consider are relevant to the circumstances of the deaths. In particular it will be noted I set out the many developments which have taken place since the Rosepark tragedy on 31 January 2004, which are very relevant in considering my findings under sections 6(1)(c) and 6(1)(d).

CHAPTER 2:**MY FINDINGS UNDER SECTION 6(1) OF THE 1976 ACT**

This Chapter sets out my findings in terms of section 6(1) of the 1976 Act. There are three sections in this Chapter:

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A INDEX

Here I indicate pages in this chapter where my various findings are set out and refer to the subsequent chapters of my Determination in which the material on which I base these findings can be found.

It will be noted that “**RP**” refers to a “reasonable precaution” whereby the deaths or accident resulting in the deaths might have been avoided; “**DS**” refers to a “defective system” which caused or contributed to the deaths and “**OF**” refers to “other facts relevant to the circumstances of the deaths”.

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RP3.3: Fitting Smoke Seals to Bedroom Doors. It would have been a reasonable precaution to have fitted smoke seals to bedroom doors (Chapter 44(3)(C)). 29

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¹ Chapter 46(5)(a) below.

² Chapter 46(6)(a) below.

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B MY FINDINGS UNDER SECTION 6(1) OF THE 1976 ACT

The Sheriff Principal, having resumed consideration of the evidence adduced at this Inquiry which took place at Motherwell from 16 November 2009 until 12 August 2010, the written submissions lodged on behalf of the Crown and the interested parties, and the oral submissions made at Hamilton Sheriff Court on 17 February 2011, FINDS AND DETERMINES in terms of section 6(1) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 that

Section 6(1)(a) - where and when the deaths took place (see Chapter 41 hereof)

1. Robina Burns died in the Coronary Care Unit at Glasgow Royal Infirmary at or about 7 p.m. on 2 February 2004.
2. Thomas Cook died in room 16 at Rosepark Care Home at or about 4.38 am on 31 January 2004
3. Helen Crawford died in room 14 at Rosepark Care Home at or about 4.38 am on 31 January 2004
4. Agnes Dennison died in room 17 at Rosepark Care Home at or about 4.38 am on 31 January 2004
5. Margaret Gow died at Stobhill Hospital at or about 10.40 am on 2 February 2004.
6. Margaret Lappin died in room 12 at Rosepark Care Home at or about 4.39 am on 31 January 2004
7. Isabella Maclachlan died at Wishaw General Hospital at or about 3.35 am on 1 February 2004
8. Isabella McLeod died at Stobhill Hospital at or about 4.45 pm on 1 February 2004

9. Mary McKenner died in room 13 at Rosepark Care Home at or about 4.39 am on 31 January 2004

10. Julia McRoberts died in room 9 at Rosepark Care Home at or about 4.38 am on 31 January 2004

11. Dora McWee died in room 15 at Rosepark Care Home at or about 4.38 am on 31 January 2004

12. Helen Milne died in room 13 at Rosepark Care Home at or about 4.38 am on 31 January 2004

13. Nan Stirrat died in room 9 at Rosepark Care Home at or about 4.38 am on 31 January 2004

14. Annie Thomson died in room 14 at Rosepark Care Home at or about 4.38.30 am on 31 January 2004

.....

Section 6(1)(a) - where and when the accident resulting in the deaths took place (see Chapters 30 and 38 hereof)

1. Each of the deaths resulted from a fire which occurred at Rosepark Care Home. It started at 04.25 am on 31 January 2004.

2. The fire started low down on the south side of the cupboard known as cupboard A2 in the upper corridor of Rosepark Care Home. (The reasons for this conclusion are fully set out in Chapter 25).

.....

Section 6(1)(b) - the cause or causes of the deaths (see Chapter 42 hereof)

1. The death of Robina Burns was caused by acute tracheobronchitis due to inhalation of smoke and fire gases. Ischaemic heart disease due to coronary artery atheroma and cardiac amyloidis were potential contributing causes.
2. The death of Thomas Cook was caused by the inhalation of smoke and fire gases.
3. The death of Helen Crawford was caused by the inhalation of smoke and fire gases.
4. The death of Agnes Dennison was caused by the inhalation of smoke and fire gases.
5. The death of Margaret Gow was caused by bronchopneumonia due to the inhalation of smoke and fire gases.
6. The death of Margaret Lappin was caused by the inhalation of smoke and fire gases.
7. The death of Mary McKenner was caused by the inhalation of smoke and fire gases.
8. The death of Isa McLachlan was caused by bronchopneumonia due to inhalation of smoke and fire gases. Chronic obstructive airways disease was a potentially contributing cause of death.
9. The death of Isa McLeod was caused by bronchopneumonia due to hypoxic brain damage and the inhalation of smoke and fire gases.
10. The death of Julia McRoberts was caused by the inhalation of smoke and fire gases.

11. The death of Dora McWee was caused by the inhalation of smoke and fire gases.
12. The death of Helen Milne was caused by the inhalation of smoke and fire gases.
13. The death of Nan Stirrat was caused by the inhalation of smoke and fire gases.
14. The death of Annie Thomson was caused by the inhalation of smoke and fire gases.

.....

Section 6(1)(b) – the cause or causes of the accident resulting in the deaths (see Chapters 11, 12, 13, 30, 31, 32, 33, 38 and in particular 43 hereof)

The accident resulting in the deaths was caused by an earth fault occurring where cable V passed through the righthand knockout at the back of the distribution box in cupboard A2. The live conductor of cable V came into contact with the metal edge of the knockout such as to generate an arc. Arcing is the flow of electricity through air. An arc may be generated if an earth fault occurs, generating significant current flow. The PVC insulation of cable V was not protected by an outer cable sheath at the point where it entered the knockout. It was pressing against the edge of the knockout which had no grommet or other form of cable protection. The edge of the knockout was sufficiently sharp to damage the PVC insulation, which had become abraded or damaged over time by the metal edge of the knockout. The arc generated sparks which escaped from the distribution board. Those sparks either ignited solid flammable materials stored within the cupboard, thereby starting the fire, or a flammable cloud within the cupboard which in turn ignited solid flammable materials within the cupboard.

.....

Section 6(1)(c) – the reasonable precautions whereby the deaths and any accident resulting in the deaths might have been avoided.

RP1: Cable Protection - Insulation at the Cable V Knockout (see Chapters 11, 12, 13, 43 and in particular 44(1) hereof)

It would have been a reasonable precaution:-

- (a) for a grommet or other cable protection to have been fitted at the upper right-hand knockout of the distribution board when the system was installed and, in any event, when cable V was installed; and
 - (b) for the installation to have been undertaken in such a manner that the outer sheath of cable V was protecting the inner cores as they passed through the knockout.
2. Had there been a grommet in place, or if the outer sheath of cable V had been protecting the inner cores as they passed through the knockout, the metal edge of the knockout would not have come into contact with the live conductor of cable V. The accident resulting in the deaths and the deaths themselves might have been avoided.

RP2: Inspection and Testing of the Electrical Installation (see Chapters 11, 12 and 44(2) hereof)

1. It would have been a reasonable precaution for the distribution board to have been inspected and tested in accordance with the IEE Regulations at least on the following occasions:-
- (a) On completion of the electrical installation at Rosepark in 1992;
 - (b) When the system was modified to add cable V; and
 - (c) Not later than the fifth and tenth anniversaries of the completion of the electrical installation.

2. Had the system been inspected and tested in accordance with the IEE Regulations, the absence of the grommet at the cable V knockout and the absence of the outer sheath of cable V protecting the inner cores as they passed through the knockout would have been identified and rectified. In that event, the fire would not have occurred and the deaths might have been avoided.

RP3: Protection of the means of escape

RP3.1 cupboard doors (see Chapters 13 and in particular 44(3)(A) hereof)

RP3.1.1 It would have been a reasonable precaution for the doors to cupboard A2 to have been kept locked shut or at least securely closed.

It should be noted:

- (i) the cupboard contained (a) a potential source of ignition (namely, the electrical distribution board and associated equipment) and (b) a substantial quantity of combustible materials.
- (ii) the cupboard was located directly on a means of escape.
- (iii) it was located on a subcompartment of the home which housed up to 14 residents who could, at any given time, be expected to include individuals with high levels of dependency and whose evacuation would present a significant challenge.
- (iv) as the British Research Establishment (BRE) work showed, securely closing cupboard doors would (subject to the unpredictable effects of any aerosol canisters) significantly have slowed the fire breaking out into the corridor.

Had the doors of cupboard A2 been securely closed, this might have avoided some or all of the deaths.

RP3.1.2 It would have been a reasonable precaution to have fitted fire-resisting doors to cupboard A2.

It should be noted that

- (i) the cupboard contained (a) a potential source of ignition (namely the electrical distribution board and associated equipment) and (b) a substantial quantity of combustible materials.
- (ii) it was located directly on a means of escape.
- (iii) It was located in a subcompartment of the Home which housed up to 14 residents individuals with high levels of dependency and whose evacuation would present significant challenges.
- (iv) it was connected to the ventilation system. As the BRE work demonstrated, this meant that, even with well fitting doors, there would be such a continuing source of oxygen that the fire would not burn itself out.
- (v) as the BRE work outlined above demonstrated (a) securely closing cupboard doors would (subject to the unpredictable effects of any aerosol canisters) significantly slow the fire breaking out into the corridor and (b) if the doors were fire resisting, the additional time thereby bought for responding to the emergency would have been very significantly prolonged.
- (vi) The publication “Fire Safety: an Employer’s Guide”, which was readily available, provided that stocks of office stationery and supplies and flammable cleaner’s materials should be kept in separate cupboards and stores and if they open onto a corridor or stairway escape route, they should be “fire resisting with a lockable or self closing fire door”.

In these circumstances it would have been reasonable for the cupboard to have been fitted with fire resisting doors. The BRE test (D) showed the benefit (subject to the unpredictable effects of aerosols) of fitting fire resisting cupboard doors. With these doors in place, it took the fire more than 30 minutes longer to break out of the cupboard than was the case in the actual incident at Rosepark. This would have provided very significant additional time for staff to identify the fire, to close other bedroom doors, and, assuming that a 999 call was made, for the Fire Service to arrive and deal with the fire.

Had the doors to the cupboard been fire resistant as well as being securely closed, this might have avoided some or all of the deaths.

RP3.2 Closed Bedroom Doors (see also Chapters 15, 29 and in particular 44(3)(B) hereof)

It would have been a reasonable precaution for all bedroom doors to have been closed in the event that a fire alarm sounded. In particular it would have been a reasonable precaution for the management of Rosepark to have fitted devices to ensure that bedroom doors were closed automatically in the event that the fire alarm sounded.

In particular it should be noted:

- (i) in corridors 3 and 4 (where all the fatalities occurred) only in rooms 10 and 11 were the bedroom doors closed;
- (ii) in the event that there were medical or nursing reasons for leaving any particular bedroom door open, or a care home resident reasonably wished to make a choice to have his or her door open or ajar at night, members of staff could close all doors in the event that a fire alarm sounded, or doors could be fitted with mechanisms which would close them automatically in the event that the fire alarm sounded;
- (iii) at all relevant times there were available in the market a number of technological solutions to the apparent conflict between fire safety and other demands, namely devices that could have been fitted to the bedroom doors in order to make sure that they would be closed automatically should the fire alarm sound;
- (iv) *esto* the care home adopted a strategy which relied solely on the action of staff to close bedroom doors in the event of a fire, a care home adopting such a strategy would require to address itself seriously to the training and drilling of the staff in that regard and, potentially, whether the number of staff on duty at any time would be sufficient to ensure that this action could be taken;
- (v) If a suitable and sufficient risk assessment had been carried out at Rosepark (see Chapter 44(6) hereof) that risk assessment would have addressed how the fire safety requirement to have doors closed in the event of a fire would be achieved and would, in that context, have recommended the use of one of the technological devices that were available;
- (vi) the bedroom doors, if they had all been closed, would have withstood the fire in the corridor for a period of time sufficient for the fire to die back from lack of air, so that fire penetration into the bedrooms would not, in the absence of some exceptional circumstances causing flame impingement directly on the door, have occurred;

(vii) given that the two residents in corridor 4 who had closed doors did not, ultimately, survive, it cannot be said with certainty that any of the residents in this corner would have survived even if the doors had been closed. However, closing the doors on its own would have made a significant difference to their prospects.

Had the residents in the rooms in corridor 4 apart from rooms 10 and 11 had their doors closed, their deaths might have been avoided. If the bedroom doors in corridor 3 of Isabella MacLachlan and Margaret Gow had been closed, they might have survived.

RP3.3 Fitting Smoke Seals to Bedroom Doors (see Chapter 44(3)(C) hereof)

It would have been a reasonable precaution to have fitted smoke seals to bedroom doors. Had this precaution been taken the deaths of Robina Burns and Isabella McLeod might have been avoided.

RP3.4 Storage of Combustible Materials (see Chapters 13, 34 and 44(3)(D) hereof)

It would have been a reasonable precaution to minimise the storage of combustible materials in cupboard A2. In particular, it would have been a reasonable precaution not to store a quantity of aerosols within cupboard A2.

It should be noted:

- (i) if the aerosols stored in cupboard A2 had not become involved in the fire, the situation would have been different in the following respects: (a) the development of the fire would have been slower. The fire would have been susceptible to emergency fire fighting for longer, not only for this reason, but also because staff would not have faced the unpredictable risk of an aerosol exploding and (b) corridor 3/4 fire door would not have been blown open. The fire door would have prevented the ingress of smoke and toxic fire gases into corridor 3 by this route.
- (ii) the relative contributions of this route of transmission and the route through the ducting cannot be determined with certainty. However this precaution might have

reduced the toxic atmosphere in corridor 3 and might accordingly have avoided the deaths in that corridor, and would have been likely to make a difference if, in addition, fire dampers had been fitted.

Accordingly, had aerosols not been stored in quantities in cupboard A2, this might have avoided the deaths of residents in corridor 3. It might have avoided the deaths of residents in corridor 4 if at least one of the following additional precautions had been taken: (i) staff had gone promptly to the scene in time to engage in emergency fire fighting and (ii) the cupboard doors had been secured.

RP3.5 To Subdivide Corridor 4 (see Chapters 21 and 44(3)(E) hereof)

The number of persons accommodated in corridor 4, namely 14, were too many for an effective evacuation. This ought to have been obvious to a fire safety professional. A suitable and sufficient risk assessment would have disclosed that the residents of corridor 4 could not have been evacuated within a reasonable time. It would have been a reasonable precaution in these circumstances to subdivide corridor 4. This was done at Rosepark following the fire. The obvious place to subdivide the corridor would have been between rooms 10 and 11. This would have achieved an equal number of residents (seven) in each section. Other reasonable precautions open to management to deal with this obvious concern would have been:

- (i) as an interim measure, they could simply have decided to take fewer residents;
- (ii) they could have moved highly dependant residents to other locations;
- (iii) they could have installed a sprinkler system;
- (iv) they could have employed additional staff on the night shift.

In the event that there had been an effective subcompartmentation between rooms 10 and 11, and assuming the subcompartmentation had been properly carried out and remained effective, the deaths of Isabella MacLeod, Margaret Lappin, Mary McKenna, Ellen Milne, Helen Crawford, Annie Thompson and Dora McWee might have been avoided.

RP3.6 Fire Dampers (see Chapters 8, 33, 37 and 44(3)(F) hereof)

The installation of fire dampers would have been a reasonable precaution.

It should be noted:

- (i) The Building Standards (Scotland) Regulations 1981 as amended (applicable at the time of construction) required the installation of fire dampers *inter alia* above the corridor 3/4 fire door;
- (ii) The warranted drawing specified “Fire dampers to duct where passing through ... cavity barrier or stair enclosure;”
- (iii) It was a condition of the warrant that the building be constructed in accordance with the Building Standards and the warranted drawings;
- (iv) Had a fire damper been installed where the ventilation ducting passed above the corridor 3/4 fire door, it is unlikely that the quantities of smoke, which would then have passed into corridor 3 through the ducting prior to the operation of the damper, would, on its own, have been life threatening.
- (v) The relative significance of the smoke and toxic gases which entered corridor 3 by way of the ducting system (without its damper) and by way of the fire door cannot be determined with certainty. It is likely that ingress by the door was more important than ingress via the ducting. It is unlikely that this smoke on its own would have been life threatening. The smoke and toxic gases which entered corridor 3 via the ducting contributed to the toxic atmosphere there, although the extent to which it did so cannot be determined.

As a result of the toxic atmosphere within corridor 3, two residents of corridor 3 died. The absence of dampers made a contribution to that toxic atmosphere. Had fire dampers been in place, the two deaths in corridor 3 might have been avoided.

Additionally had such dampers been installed:

- (i) the quantity of smoke reaching the central stairwell would have been relatively small. People would have been aware of it but it would not have been threatening. This might have affected the behaviour of the staff in the first instance, and then the fire fighters;

(ii) shortly before the Fire Brigade arrived Miss Queen and Mrs Richmond evacuated the residents of corridor 1 to the Rose lounge. They tried to go beyond the second fire door to get other residents out but they were unable to do so by reason of the smoke logging in the area of the lift;

(iii) had conditions in the central stairwell allowed Miss Queen and Mrs Richmond to get beyond the central stairwell and into corridor 3 it is likely that they would have observed significant smoke logging. Station Officer Campbell's operational plan was based on information given to him by the staff which led him to believe that there was a fire situation in the liftshaft at the lower level. When he gave the "persons reported" instruction, Mr Campbell was satisfied that the smoke was contained in the area of the lift (corridor 2) and that, therefore, he had adequate resources to deal with the incident;

(iv) on the reasonable assumption that Miss Queen and Mrs Richmond would have reported observing significant smoke logging in corridor 3, the assumptions which advised Mr Campbell's decision not to seek additional resources would have been shown to be invalid, it is reasonable to conclude that he would have sought additional resources for both fire fighting and search and rescue at 0450 (when the persons reported message was sent). It can at least be said that the conduct of the fire services might have been different in a manner which could have expedited the rescue of those residents who were still alive.

Had this reasonable precaution of installing fire dampers been taken, some of the deaths might have been avoided.

RP4 Prompt and effective action by staff (see Chapter 44(4) hereof)

The following would have been reasonable precautions:

1 The provision of clear information at the fire alarm panel (and in particular a diagrammatic representation) so as to enable staff to identify quickly and accurately the location of any detector which had been activated.

2. Adequate training and drills for staff in the action required of them in an emergency.
3. Instruction of Isobel Queen in the new fire alarm panel.

Had these precautions been taken, some or all of the deaths might have avoided.

I deal with these in turn:

RP4.1 Information at the Alarm Panel (see Chapters 9, 28 (in particular paragraphs 110/111) and 44(4)(A) hereof)

It would have been a reasonable precaution to have provided clear information at the fire alarm panel (and, in particular, a diagrammatic representation) such as would enable staff to identify quickly and accurately the location of the detector which had been activated.

It should be noted:

- (i) the zoning information at the fire panel was ambiguous and laid out in a confusing manner. In particular there was no diagrammatic representation of the building showing the division into zones at or adjacent to the panel. The provision of such a zone plan would have been a reasonable precaution. It was recommended at all relevant times in the relevant British Standard. The primary purpose of such a diagrammatic representation was to give an unambiguous indication to those responding to the alarm (both staff and members of the emergency service) where exactly the fire was located in terms of the zone;
- (ii) right at the outset, a critical error was made as to the location of the alarm which had been activated. Instead of going to corridor 4 where the fire actually was, staff investigated the foyer area and downstairs. In effect they investigated all parts of the building other than where the fire actually was. Had Isobel Queen been able to accurately identify at the outset the location of the alarm which had activated she would - even applying the inadequate procedure which pertained at the home - have immediately sent two members of staff to investigate that area;

- (iii) there was a window of opportunity, (albeit a short one), during which prompt emergency fire fighting by the staff on duty might have extinguished the fire. This window of opportunity lasted for about 2 to 5 minutes from the sounding of the alarm. It would have taken staff less than 30 seconds at a run to reach cupboard A2 from the fire alarm panel. There were fire extinguishers located en route which staff could have picked up on the way - and properly trained staff would be expected to do that;
- (iv) even if staff decided that emergency fire fighting was not feasible, one would expect properly trained staff to have closed the door of the cupboard and the open bedroom doors. This would have bought significantly addition time and would have provided protection to residents in their own rooms.

This reasonable precaution might have avoided some or all of the deaths.

RP4.2 Training and Drills (see Chapters 9, 15, 16, 17, 18, 19, 20, 22, 28 and in particular 44(4)(B) hereof)

It would have been a reasonable precaution for staff to have been provided with adequate training and drills in the action required of them in an emergency.

It should be noted:

- (i) it is imperative that the staff of a care home are equipped to take prompt and effective action in an emergency.
- (ii) it is necessary that:
- (a) training be delivered not only at the start of a staff member's employment but also regularly thereafter;
 - (b) training be related to the particular workplace;
 - (c) training includes the communication of information about the way fires may behave in enclosed spaces, which is outside ordinary experience;
 - (d) training be delivered by a knowledgeable and credible individual;
 - (e) any members of staff who may be required to undertake emergency fire fighting, to be given sufficient training in the use of fire extinguishers to enable those staff members to engage confidently in emergency fire fighting;

- (f) staff who are expected, in an emergency, to undertake particular responsibilities, such as nurse in charge particularly on night shift, to be given appropriate and adequate training in those responsibilities, including evacuation procedure;
 - (g) there is confirmation of competence which is an important output of training. It is essential to check that staff have taken on board the key elements of training;
 - (h) all staff be subject to drills - not only to test that training has been effective, but to give staff practical experience at times of particular risk such as at night;
- (iii) of the staff who were on duty on the night of the fire, Isobel Queen, Irene Richmond and Yvonne Carlisle had each been shown the video once and had not received any feedback from their completion of the questionnaires. Apart from that none of the staff on duty received any fire training at Rosepark. None of them had experience of a fire drill at Rosepark. None were given any training at Rosepark in the use of fire extinguishers. Isabel Queen, who was expected to be the nurse in charge that night and to take command of the situation, had been given no training in her role; she had not been told the fire procedures. She had not been instructed in the zoning arrangements. She had no understanding of her role as nurse in charge;
- (iv) the uncertainty and confusion, demonstrating a lack of training, could be seen on the CCTV footage of the night in question and was what one might expect to happen in a Home which did not have an effective training regime;
 - (v) had the staff been effectively and properly trained the following is the likely course of events, namely:
 - (a) Isobel Queen would have immediately identified correctly the area of the Home where the alarm had been activated. She herself attributed the error which she made to a lack of training. Further, had she been properly trained she could have been under no misapprehension as to her role and would have been equipped to act effectively in that context;
 - (b) she would have phoned the Fire Brigade immediately the alarm went off;
 - (c) she would have dispatched two members of staff to the zone indicated which was zone 3 i.e. corridor 4;
 - (d) those members of staff would have arrived at the location in time to engage in emergency fire fighting. If they had been effectively trained in the

use of fire extinguishers, it could be anticipated that the fire in cupboard A2 might have been extinguished at this stage;

(e) even if they had not been able to do this, well trained staff would have shut the cupboard door and the bedroom doors in the area. This would have bought material additional time and provided temporary protection to the residents in their rooms;

(f) if the 999 call was made when the fire alarm went off, the arrival of the Fire Service would have been significantly expedited as compared with the events of the night.

In these circumstances some or all of the deaths might have been avoided.

RP4.3 Instruction of Isabel Queen in relation to the new Fire Alarm Panel (see Chapters 9 and 44(4)(C) hereof)

It would have been a reasonable precaution for Isobel Queen to have been given instruction in relation to the new fire alarm panel which was installed some days before the fire.

It should be noted:

- (i) this would have involved:
 - (a) drawing the new panel to the attention of any nurse who was to be a nurse in charge;
 - (b) explaining to the nurse in charge that, although the panel had changed, the zoning arrangements had not changed;
 - (c) giving the nurse in charge sufficient information to enable her to interpret the indications on the panel accurately;
 - (d) giving the nurse in charge sufficient information to enable her to carry out the basic operations at the panel - silencing and re-setting - correctly.
- (ii) None of these steps were taken. Isobel Queen was ignorant of the existence of the new panel until she was confronted by it when the fire alarm sounded on 31 January 2004. Had Isobel Queen received such instruction in relation to the new panel, she is much more likely to have accurately identified the area of the home

where the alarm had been activated. She herself identified “being orientated to the fire panel” as the main item of training which would have made a difference to the way she responded.

In that event some or all of the deaths would have been avoided for the reasons set out above.

RP5 The Events of the Night - Early involvement of the Fire Brigade (see Chapters 19, 20, 25, 28 and in particular 44(5) hereof)

The following would have been reasonable precautions:

RP5.1 An immediate call to the Fire Brigade when the fire alarm sounded and, to that end:-

5.1.1 An Emergency Procedure which provided for an immediate call to the Fire Brigade; and

5.1.2 Automatic transmission of a signal to the Fire Brigade in the event that the fire alarm was activated.

RP5.2 The exhibition, on prominent display in Matron’s office, of a laminated sheet specifying clearly what information should be given to the Control Operator by the member of staff who calls the Fire Brigade;

RP5.3 To have had the callout slip received by fire fighters at Bellshill Fire Station display the access address of the premises which is the subject of the emergency call at the top of the callout slip.

RP5.4 Classification by Strathclyde Fire and Rescue Service of Rosepark Care Home as “special risk” under Operational Technical Note Index No A6 such that each watch at Bellshill Fire Station visited it annually;

RP5.5 For E031 to have attended at Rosepark Avenue instead of New Edinburgh Road.

Had these reasonable precautions been taken,

- (i) the delay of nine minutes between the sounding of the fire alarm and the calling of the Fire Brigade would have been avoided; and

- (ii) the delay of 4 minutes 25 seconds as the result of EO31 deploying to New Edinburgh Road instead of Rosepark Avenue would have been avoided.

As a result, the deaths of Isabella MacLachlan, Margaret Gow, Isabella MacLeod and Robina Burns might have been avoided. The earlier deployment would not have been sufficiently early for any of the deceased who were found dead at the scene to have survived:

RP6 Suitable and Sufficient Risk Assessment (see Chapters 24 and 44(6) hereof)

RP6. It would have been a reasonable precaution for the management of Rosepark to have undertaken a suitable and sufficient risk assessment.

It should be noted that:

- (i) it was a statutory requirement;
- (ii) Fire Safety: an Employer's Guide provided detailed guidance about carrying out a fire risk assessment;
- (iii) the obligation to carry out the suitable and sufficient risk assessment rested on Thomas Balmer and could not be delegated;
- (iv) the only concrete step taken by the management of Rosepark Care Home to carry out a risk assessment (including a fire risk assessment) was the engagement of James Reid. His production 216 was not a suitable and sufficient risk assessment. In any event, no action was taken by management following receipt of the assessment. The fire drill arranged by matron, who had not seen the fire risk assessment, shortly before the fire for those present at that time when the Balmers were on holiday, was at her instigation and not on the basis of the fire risk assessment;
- (v) this document critically failed to identify the residents of the Home as persons at risk in the event of fire; it paid limited attention to the means of escape, the protection of the means of escape and the arrangements for evacuation. This document did not contain a systematic or organised assessment of fire risks; it did not contain an organised or systematic examination of potential sources of ignition; it did not address the worst case scenario of a fire breaking out at night; it did not address systematically the fire protection measures; it did not address the presence of automatic fire

detection; it ought to have considered arrangements for summoning the fire service; it should have addressed instructions given to staff in respect of emergency fire fighting;

(v) had a suitable and sufficient risk assessment been undertaken the deaths, or some of them, would have been avoided.

(vi) a suitable and sufficient risk assessment would have identified:

(a) that corridor 4 was too long and that the number of persons potentially accommodated in that corridor - 14 - were too many for an effective evacuation. That issue was so important that it would be given high priority in any action plan;

(b) whether bedroom doors would be closed in the event of a fire and how that would be achieved. Recognising that there were valid reasons why the care home required to leave certain doors open or ajar, the risk assessment would have addressed how the fire safety requirement to have doors closed in the event of a fire would be achieved and would, in that context, have recommended the use of one of the technological devices that were available;

(c) the presence of an electrical distribution board in cupboard A2 - the average risk assessor would have looked inside cupboard A2. He would have identified the cupboard contained electrical equipment and other flammable contents. He would have been concerned to find a quantity of aerosols within the cupboard and would have recommended that they be stored elsewhere. He would in any event have recommended that the doors be kept locked and that they should preferably be fire resisting;

(d) inadequate arrangements for summoning the fire brigade - a risk assessor would discuss the emergency plan with management and staff. A suitable and sufficient risk assessment would have addressed the arrangements for contacting the fire and rescue service. This exercise would have identified that the home had adopted an inappropriate procedure which involved a delay in contacting the fire service until a fire had been identified;

(e) absence of fire dampers - there were ventilation grills in the ceilings of the corridors on either side of the sub compartments. A competent risk assessor would appreciate that there was likely to be a common duct and that this should be protected by fire dampers and should satisfy himself by making enquiry about the fire protection at the barrier.

(vii) A competent risk assessor experienced in fire safety, addressing the position at Rosepark, would have recommended:

- (a) subdivision of corridor 4 within a short period of months (or, if management were not prepared to take that step, alternative measures - such as the introduction of a sprinkler system, or increasing the staff complement, to secure the same end);
- (b) the installation of self-closers (swing free, dorgard or other similar devices) on bedroom doors as a matter of urgency;
- (c) keeping the doors to cupboard A2 locked as a matter of urgency;
- (d) removal of the aerosols from cupboard A2 as a matter of urgency;
- (e) upgrading the bedroom doors to fire resisting, self-closing doors fitted with smoke seals and the cupboard doors to be fire resistant doors within 12 months;
- (f) that the fire brigade should be called on the operation of the alarm.

(viii) Such a risk assessment should also have:

- (a) emphasised the need for clearance between the contents of cupboard A2 and the distribution board;
- (b) have identified, at least as an issue for enquiry, the requirement for fire dampers; and
- (c) recommended periodic inspection and testing of the fixed electrical installation in accordance with BS7671.

(ix) It follows that, had a suitable and sufficient fire risk assessment been undertaken, many of the reasonable precautions mentioned under this chapter would have been identified and, on the basis that the recommendations generated by the process would have been acted upon, this might have avoided the fire and some or all of the deaths.

RP7 Early and Sufficient Resourcing of the Incident by the Fire Brigade (see Chapters 28 and 44(7) hereof)

This fire was unique in respect of the following factors:

1. The postal address was not the entrance to the Home.

2. Dampers had been omitted from the ventilation system allowing smoke to move from one compartment to another, and in particular from corridor 4 to the lift shaft area in corridor 2.
3. There was no stopping of service entry points between fire compartments.
4. There was no effective compartmentation in the attic area and there was an open vent in the lift shaft area (corridor 2) which allowed smoke from corridor 4 to penetrate via the roof void to corridor 2.
5. Alarm zones overlapped compartments.
6. Alarm zone descriptions at the fire alarm panel were ambiguous and confusing.
7. The alarm panel was changed several days before the fire without staff being informed or trained.
8. That the staff had no idea how to interpret fire alarm information and had reset the alarm before phoning the Fire Brigade.
9. That the staff misinterpreted information from the alarm and advised the Fire Brigade both in the initial call and subsequently that the fire was in the lift shaft at the lower level.
10. There was no effective staff training in fire procedures.
11. The staff on duty on the night of the fire had never participated in a fire drill. There was no evacuation plan committed to writing, and in event no adequate evacuation plan.
12. Bedroom doors were routinely left open over night.
13. The only coherent procedure, followed on the occasion of the fire, was an attempt to identify that there was a fire before the Fire Brigade was called, resulting in a delay of nine minutes.
14. The fire commenced in a cupboard which contained a number of aerosol sprays which led to a very fast developing fire of short duration which was likely to have self extinguished before the Fire Brigade were called or certainly before they arrived.

Against that background:

(i) Station Officer Campbell was approached by the nurse in charge who told him that the fire alarm had gone off and that the first indication was zone 3 which indicated a fire in the lower ground floor at or around the lift area. Station Officer Campbell had no reason to doubt that information. It was consistent with the information he himself had gathered from his own observations (wisps of smoke in a room adjacent to the lift shaft area on the lower ground floor as he approached the building and the presence of smoke in the lift shaft area at the upper level when he arrived at the building).

(ii) His evidence was that he had no reason to believe that compartmentation would not be effective and that bedroom doors would not be closed. This caused him to make a “persons reported” message at 0450. He instructed “make pumps 3” at 0455. At that time he was aware that there was smoke in corridor 3, but he took the view that he was dealing with a fire in the lift. He instructed “make pumps 4” at 0506 because he then realised that the number of residents in the Home were too great for the number of fire fighters then available. He instructed “make pumps 6” at 0525 because he considered it would be prudent to get additional resources for the relief of existing personnel, investigation and damping down procedure. He was also concerned to mobilise the command and control unit of SF&R which would allow senior officers to attend.

(iii) IT CAN NOW BE SAID, with the benefit of hindsight and a consideration of the whole evidence led at the Inquiry, and in particular the evidence of Sir Graham Meldrum, that, while Station Officer Campbell made a series of reasoned judgement calls on the basis of the information then available to him, against the background of the above mentioned 14 unique factors which were then unknown to him, reasonable precautions can now be seen to have been:

RP7.1 For Station Officer Campbell to have examined the fire alarm panel and zone card in order to verify the information he had obtained from staff about the possible whereabouts of the fire⁵;

⁵ Sir Graham Meldrum, 6 August 2010, am, pp71-72;

RP7.2 For Station Officer Campbell to have treated the residents of the upper level bedrooms beyond corridor 2 as unaccounted for, until the position was established otherwise⁶.

RP7.3 For Station Officer Campbell to have confirmed with the staff of Rosepark whether the doors to the bedrooms beyond corridor 2 were open or closed⁷;

RP7.4 For Station Officer Campbell to have instructed the message “make pumps 6” at 0450 hours when the persons reported message was sent⁸;

Had these precautions been taken, on the basis that the call from Rosepark to the Fire Brigade was made nine minutes after the alarm sounded and the initial attendance of fire appliances was to Rosepark Avenue, they might have avoided the death of Robina Burns.

.....

Section 6(1)(d) – the defects, if any, in any system of working which contributed to the death or any accident resulting in the death

DS1 Maintenance of the Electrical Installation (see Chapters 11, 12 and 45(1) hereof)

The system of maintenance of the electrical installation at Rosepark before the fire was defective

It is to be noted:

- (i) an adequate system of maintenance would have involved:
 - (a) regular visual inspections and
 - (b) periodic inspections and testing in accordance with IEE Regulations.

⁶ Sir Graham Meldrum, 6 August 2010, am, pp74-75;

⁷ Sir Graham Meldrum, 6 August 2010, am, p71

⁸ Sir Graham Meldrum, 6 August 2010, am, p72;

- (ii) the occasional walk through by Alexander Ross, done without any records being kept, and as a favour, did not amount to such a system;
- (iii) an adequate system of maintenance requires appropriate record keeping. No records of Mr Ross' work were kept;
- (iv) the documentation which Thomas Balmer produced in respect of an alleged arrangement with Alexander Ross presented a misleading impression of the arrangements in place at the Home in respect of maintenance and inspection of the fixed electrical installation.

The defects in the system of maintenance in the electrical installation contributed to the deaths. Had there been a proper system of maintenance of the electrical installation, this would have included periodic inspection and testing of the electrical installation in accordance with IEE Regulations. Had this been undertaken, the inadequate insulation at the back of the distribution board would have been identified. An adequate system of maintenance of the electrical installation would have identified that defect and would have resulted in its rectification. The accident which caused the deaths would not have occurred and all of the deaths would have been avoided.

DS2 Inadequate Training and drills (see Chapters 16, 17, 18, 19, 20, 23, 28, 44(4)(B) and 45(2) hereof)

The system of work in respect of fire safety training and drilling of staff at Rosepark was defective.

The system of work is discussed in detail in the Chapters mentioned above but in particular it should be noted:

The system of work was deficient in that:

- (i) the induction training was inadequate. There was no feedback from the questionnaire completed as a result of watching the video. There was no specification of the part that staff would play in the event of an emergency;
- (ii) There was no system of refresher training;
- (iii) Drills were held haphazardly;

- (iv) There was no system in place to ensure that all members of staff received regular refresher training and drills at appropriate frequencies;
- (v) The arrangements in respect of the night shift were particularly unsatisfactory. Of the night staff on duty at the time of the fire Isobel Queen, Irene Richmond and Yvonne Carlyle had each been shown the video once. Apart from that none of them had received any fire training at Rosepark. Brian Norton received no fire training at all at Rosepark. None of them had experienced a fire drill at Rosepark;
- (vi) The training did not take into account the particular responsibilities which individual members of staff might be called on to undertake;
- (vii) The training in the use of fire extinguishers was inadequate. None of the staff on duty on the night of the fire had been trained in the use of fire extinguishers;
- (viii) Management did not recognise that an important change in the fire safety arrangements – namely the new fire alarm panel – required to be reflected in the instruction of relevant staff.

These deficiencies were manifested in the position of each member of staff who was on duty on the nightshift on 31 January 2004. This defective system of working contributed to some or all of the deaths. Had staff been well trained and drilled (see Chapter 44(4)(B) above):

- (a) Ms Queen would have contacted the Fire Brigade when the alarm went off;
- (b) Ms Queen would have identified the correct zone when she examined the fire alarm panel after the fire alarm went off;
- (c) staff would have gone immediately to the correct part of the building, would have found the source of the fire in cupboard A2 and would have been in a position to undertake emergency fire fighting. Had they been trained in the use of fire extinguishers, there was sufficient time for it to be likely that they would have been able to extinguish the fire;
- (d) even if they had not been able to extinguish the fire, they would have known to close the cupboard door and bedroom doors, thereby buying sufficient time for the Fire Service (which on this hypothesis would have been summoned, even on the inadequate procedure that followed at Rosepark) to deal with the fire.

This defective system of work contributed to the deaths.

DS3 System of Management of Fire Safety (see Chapters 15, 16, 17, 18, 19, 20, 22, 23, 28 and in particular 45(3) hereof)

DS3.1 The management of fire safety at Rosepark was systematically and seriously defective. The reasonable precautions and the specific deficiencies which have been identified in my findings under section 6(1)(c) and section 6(1)(d) *supra* fall to be seen in the context of the management of fire safety at Rosepark as a whole. The arrangements for the management of fire safety were systematically and seriously defective in that:

- a. There was a failure to set clear policies and objectives;
- b. There was a failure in organisation in that roles and responsibilities were not clearly allocated between management and staff, and in particular between management and matron.
- c. The responsibilities of the nurse in charge on night shift had not been identified and communicated;
- d. There had been no training in emergency fire fighting;
- e. There was a fundamental failure to have a suitable and sufficient risk assessment which would have allowed management to address (a) inspection of electrical installation (b) preparation of an emergency plan (c) the procedure to be followed in the event of the fire alarm sounding and (d) an evacuation plan;
- f. Failure to set performance standards in relation to key matters such as training and drills and whether bedroom doors could be left open and, if so, in what circumstances;
- g. Failure of active monitoring to check standards of performance which management had set were in fact being achieved in respect of *inter alia* the frequency of drills, which staff had the benefit of fire drills, whether night staff were attending fire drills, the practice in relation to bedroom doors, whether all staff had completed induction training which included an element of fire safety, whether staff were receiving refresher training in fire safety and the incidents and frequency of false alarms;

- h. Failure to have an effective progressive review to identify any deficiencies disclosed by the process of monitoring.

DS3.2 These deficiencies in the management of fire safety at Rosepark contributed to the deaths in that a number of key circumstances would have been quite different if there had been an adequate system of fire safety management:

- (i) had the process of risk assessment identified the need for inspection and testing of the electrical system, and management put in place appropriate arrangements for the inspection of the system, the absence of appropriate cable protection would have been identified and the fire would not have occurred.

- (ii) Even if the fire had occurred a number of key circumstances would have been quite different if there had been an adequate system of fire safety management:

- (1) A suitable and sufficient risk assessment would have been undertaken and as a result steps would have been taken regarding protection of the means of escape, the emergency procedure and arrangements for contacting the Fire Service would have been articulated in writing, and there would have been arrangements for training and drills.

- (2) Management would have clearly articulated the roles and responsibilities of the matron, night shift staff nurse in charge, and members of staff who might require to engage in fire fighting.

- (3) Management would have articulated clearly what was required in regard to training and drills, would have ascertained whether or not the matron was in a position to meet its requirements, and would have provided such additional resources as it identified as being necessary to achieve its objectives.

- a. Management would have appreciated that a change in the fire alarm panel was something which required appropriate instruction to be given to staff who would need to interpret and operate the panel.

- b. Management would have put in place a control system, involving appropriate standard setting and record keeping, and proactive monitoring to ensure that its expectations were being met.

- c. Management would have responded to false alarms, and in particular the serious situation exemplified in December 2003 when the fire alarm went off in the loft space.

The way the staff responded on the night of 31 January 2004 was just what might be expected of staff who had not received adequate fire training and who had, by reason of exposure to false alarms, become complacent. Had the staff been properly trained in a matter consonant with the task that would face them in that emergency situation, they would have behaved quite differently and that, either on its own, or in conjunction with other changes which would have been put in place had the system of fire safety management not been defective, would have avoided some or all of the deaths.

(4) DS4 System of Management of the Construction Process of Rosepark (see Chapters 6, 7, 8, 9, 11, 12 and 45(4) hereof)

The system of management of the construction process of Rosepark was defective.

It should be noted:

- (i) Thomas Balmer chose to manage the construction project himself, engaging the separate trades on individual and separate contracts. These contracts did not clearly articulate the responsibilities of the contracting parties. This was particularly so with the ventilation contract;
- (ii) Thomas Balmer was in fact the main contractor and clerk of works for the project. He did not have the experience to be expected of either a professional main contractor or a clerk of works. While he had some experience of managing construction projects, he had no experience of managing a project which involved structural fire precautions of the sort required at Rosepark. He did not engage a professional clerk of works or a professional main contractor to protect his position. He did not engage a professional architect to provide the periodic supervision which would be implied in a full service engagement;
- (iii) in particular:

- a. A professional clerk of works or main contractor would have insisted on seeing testing and inspection documentation from the electrical contractor as well as a certificate under the IEE Regulations;
 - b. There were no fire dampers installed. Thomas Balmer appreciated that the warranted drawing referred to fire dampers. There was no specific provision in the contract between Thomas Balmer and Star Electrical (Strathclyde) Limited for the provision of fire dampers. Thomas Balmer inferred what the purpose of a fire damper was, but did not know what a fire damper looked like. A professional main contractor or clerk of works would have identified the absence of dampers. This would have been evident to someone who knew what the type of damper which would at that time have been used in a building such as this looked like.
- (iv) Mr Balmer did not ask for inspection and testing documentation for the electrical installation following completion. Had he done so the absence of inspection and testing would have become apparent and such inspection would no doubt have been undertaken. Inspection in accordance with IEE requirements would have disclosed the absence of protective insulation at the cable knockout.
- (v) The absence of dampers has been dealt with at RP3.7 and at Chapter 44(3)(F) under “reasonable precautions”. I have held that the presence of dampers might have avoided some of the deaths. However, it is not appropriate that there be a finding under section 6(1)(d) in respect of dampers. It cannot be said that the contribution to the toxic atmosphere in corridor 3 did in fact contribute to the deaths. This is required for a finding under section 6(1)(d). However there is no doubt that the management of the construction process at Rosepark as far as the dampers were concerned was defective. The contract in respect of the ventilation system was unspecific and in particular did not mention an obligation to provide dampers in terms of the contract price.

The defective system of management of the construction of Rosepark, in respect that it did not identify the absence of testing and inspection documentation and a certification under IEE Regulations, contributed to the fire and to the deaths.

DS5 The Interaction between Rosepark and Lanarkshire Health Board (see Chapters 26 and 45(5))

The following were defects in the system of working by Lanarkshire Health Board as regards regulation of nursing homes, and in particular Rosepark Care Home, which contributed to the deaths.

5.1.1 The regime of inspection instituted by Lanarkshire Health Board, and operating during the period 1992 to 2002, was based on an inadequate appreciation of the scope of the statutory responsibilities of Health Boards under the Nursing Homes Registration (Scotland) Regulations 1990 (“the 1990 Regulations”);

5.1.2 The regime of inspection was not advised by any clear determination by the Health Board of what standards of fire precautions it considered to be sufficient and suitable in terms of regulation 13 of the 1990 Regulations;

5.1.3 The system of working of the inspection teams of Lanarkshire Health Board between 1992 and 2002 was defective in that it did not recognize that it was for the Health Board, through its inspectors, to examine the sufficiency and suitability of all of the facilities provided, precautions taken and arrangements made by the person registered, as regards fire precautions, under regulation 13 of the 1990 Regulations;

5.1.4. The system of working of the inspection teams of Lanarkshire Health Board between 1992 and 2002 was defective in that it was conducted on the basis of a fundamental misunderstanding of the role of Strathclyde Fire and Rescue Service in the inspection of nursing homes over that period of time.

The defects in the systems of work of Lanarkshire Health Board contributed to some or all of the deaths.

.....

Section 6(1)(e) – Other facts which are relevant to the circumstances of the death**OF1: Enforcement of the Fire Precautions Legislation**

This issue is fully discussed at Chapter 46(1) hereof.

OF1 The following facts were relevant to the deaths

(1) Enforcement of the Fire Precautions (Workplace) Regulations 1997 was entirely dependent on a risk based approach which determined the premises that would attract inspection. At least in the area of operation of Strathclyde Fire and Rescue Service, care homes were not being inspected under the 1997 Regulations at all at the time of the fire.

(2) Section 10 of the Fire Precautions Act 1971 authorised Fire and Rescue Authorities to seek a prohibition or restriction on the use of premises involving excessive risk to persons in case of fire. That section apart, the only situations which would have caused Strathclyde Fire and Rescue Service to be at a care home prior to the fire were (i) in the context of section 1(1)(d) familiarisation visits or the giving of advice under section 1(1)(f) of the Fire Services Act 1947; (ii) a situation where an issue of concern has been raised direct by a third party; (iii) at the request of the regulator (in which case Strathclyde Fire and Rescue would inspect), and (iv) at the invitation of the owner of the care home⁹. Thus, the organisation with the expertise in matters of fire safety was not inspecting care homes routinely.

OF2: The Care Commission and its Interaction with Rosepark 2002-2004

Reference is made to all the evidence set out in Chapter 27 hereof and the discussion at Chapter 46(2) hereof. I make the following findings:

⁹ Brian Sweeney, 12 July 2010, pm, pp52-55;

OF2 The following facts are relevant to the circumstances of the deaths:

1. The proposals which gave rise to the Regulation of Care (Scotland) Act 2001 (“the 2001 Act”), the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002 (“the 2002 Regulations”), and the National Care Standards 2002, were not intended to effect any change in the level of scrutiny applied to the inspection of fire precautions in nursing homes.
2. The expectation of the sponsors of the new legislation was that the existing arrangements for inspection of nursing homes by Health Boards would continue under the auspices of the Care Commission.
3. The policy intentions behind the 2001 Act, 2002 Regulations and the National Care Standards 2002 reflected a desire, as reflected in the White Paper and subsequent Consultation Document, to move away from a prescriptive approach to inspection which called only for a home to be measured against its compliance with statutory requirements.
4. It is not appropriate for the Inquiry to make findings about the appropriateness of such matters of policy. However, it is a circumstance relevant to the fire at Rosepark that, intentionally or otherwise, the repeal of the Nursing Homes (Registration) (Scotland) Act 1938 (“the 1938 Act”) and the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 1990 (“the 1990 Regulations”), and their replacement with the 2001 Act, 2002 Regulations, and the National Care Standards, resulted in a weaker regime of inspection.
5. Regulation 19 of the 2002 Regulations was the only regulation to address matters of fire safety. It was a regulation concerned with the keeping of records. Until it was amended with effect from 1 October 2006¹⁰, Regulation 19 required a care provider to keep a record of the procedure which was to be followed in the event of a fire or other emergency, a record of all fire drills and alarm tests which have been

¹⁰ The Fire (Scotland) Act 2005 (Consequential Modifications and Savings) (No.2) Order 2006, schedule 1, para. 6; Production 1879;

conducted, and a record of any maintenance of equipment which is used in the provision of the care service¹¹.

6. There was no provision in the 2002 Regulations directing the Care Commission to consider the sufficiency and suitability of the facilities provided, the precautions taken and the arrangements made in respect of fire safety, and in particular of the sufficiency and suitability of the procedure to be followed in the event of a fire or other emergency or the sufficiency and suitability of the recorded fire drills.

7. At Rosepark in 2003 fire safety was not scrutinised in any depth by the inspectors. The inspectors did not see fire safety as a priority. Nor did the Care Commission. At the time of the annual inspection on 20 March 2003 the Care Commission's focus was on the experience for the user of services, and, at a practical level, the establishment of a national regime of inspection applying national standards.

8. The 2001 Act, 2002 Regulations and National Care Standards together lent themselves to a lower level of scrutiny of fire precautions than ought to have been the case under the Health Board inspection regime.

9. The way in which fire precautions were examined at Rosepark on 20 March 2003 was unlikely to uncover defects in fire policies and procedures.

10. The inspection on 20 March 2003 did not discover any discrepancy between the contents of published fire notices at Rosepark and the procedure adopted by the home on the sounding of the fire alarm.

11. The inspection on 20 March 2003 did not discover that members of staff at Rosepark, and in particular night staff, were not being given regular fire safety training, and participating in fire drills.

12. The inspection on 20 March 2003 did not discover that there was a practice at Rosepark of permitting bedroom doors to remain open overnight.

¹¹ 2002 Regulations, reg. 19(3)(b)(c) and (e)

13. The inspection on 20 March 2003 did not discover any deficiency in the premises' risk assessment. The inspectors were not, in any event, qualified to assess the suitability or sufficiency of that assessment.

14. On the evidence there was no basis for the finding in the inspection report, under care standard 4, that service users and staff were aware of what to do in the event of a fire and that all relevant fire safety information and tests were recorded.

15. On the evidence there was no basis for the finding in the inspection report, under care standard 5, that Rosepark had appropriate policies and procedures regarding fire safety.

16. The level of scrutiny of fire safety issues at Rosepark on 20 March 2003 was a product of an inspection regime whose focus was on care rather than safety.

OF3: Statutory Responsibility for Fire Safety: Care Commission and Strathclyde Fire and Rescue understanding of their respective roles

This issue is fully discussed at Chapter 46(3)

OF3 The following facts are relevant to the circumstances of the deaths:

1. Regulation and enforcement of fire safety in care homes at the time of the fire at Rosepark was fragmented.

2. The Care Commission's knowledge of the role of Fire and Rescue Services in relation to fire precautions in care homes, and vice versa, was characterised by a lack of clarity. At the time of the Rosepark fire, the inspectors of the Care Commission charged with regulating fire safety in care homes did not have the experience to do so adequately. The organisation which did have the experience, the Fire and Rescue Services, were not inspecting care homes routinely.

3. The product of this lack of clarity was a situation at Rosepark in which the absence of, or deficiencies in the premises risk assessment, and the arrangements for dealing with a fire alarm sounding at night, were unlikely to have been identified at the time when the fire occurred.

OF4: Certificate of Completion: The Position of the Architect and Building Control Authority

This is discussed in detail at Chapter 46(4). Relevant evidence is set out in Chapters 6 and 7 hereof.

OF 4 It is a fact relevant to the circumstances of these deaths that a certificate of completion was issued in circumstances where there had been a serious failure to comply with the Building Regulations in respect of the omission of fire dampers

I recommend that Scottish Ministers give careful consideration to the following proposals:

- (1) Whether, when an architect signs an application for a completion certificate on behalf of a client, he should declare:
 - (a) the basis on which he was employed in respect of the project; and
 - (b) the steps he has taken to ascertain the building has been completed in accordance with the Building Regulations and the terms of the warrant; and
- (2) Whether there should be a more prescriptive regime of the steps required to be taken by Building Control before pronouncing themselves satisfied that a building has been completed in accordance with the conditions on which the relevant warrant was granted.

OF5: Checking of Documentation in respect of Inspection and Testing of an Electrical Installation and a Ventilation System

This issue, and in particular the response of Scottish Ministers, is discussed in full in Chapter 46(5) hereof

OF 5 It is a fact relevant to the circumstances of these deaths that there had been no external check for documentation vouching: (a) the testing and inspection of the electrical installation; or (b) the testing and inspection of the ventilation system.

I recommend

- (1) That there should be such an external check by a regulator.
- (2) There should be clarity between the potential regulators namely Health & Safety Executive, Fire and Rescue Service and the successor to the Care Commission (SCSWIS) as to who should carry out this task; and
- (3) The relevant inspectors should have instructions as to the nature of the documentation which they would expect to see.
- (4) Consideration should be given to the proposal of SF&R that the smoke and fire integrity of compartments (which would include but would not be limited to the presence and effectiveness of dampers, if so fitted) be subject to expert certification in the same way as the electrical installation is certified.

OF6: Assurance as to the Competence of Fire Risk Assessors

This issue is discussed in Chapters 24 and 46(6) hereof

OF6 It is a fact relevant to the circumstances of the deaths that there was at the time of the fire no statutory requirement as regards the qualifications of persons who provide services in connection with the risk assessment of care homes.

1. The circumstances of this inquiry illustrate that in the specific context of fire risk assessments of residential care homes, there may be a case for a more prescriptive

approach to be taken to the question of the qualification of persons who are engaged by duty-holders to assist. This could be justified: (a) by the particular difficulties attendant on fire risk assessment of such premises; and (b) the legitimate public aim of protecting vulnerable residents.

2. An alternative approach, short of statutory regulation, would be the use of third party accreditation schemes, with appropriate support being given to the importance of using accredited assessors in non-statutory guidance to those responsible for running Care Homes and in the actions of regulators¹². The inquiry heard evidence that there are now registration or accreditation schemes for fire risk assessors run by four bodies (all but one of them post-dating the fire at Rosepark), and that the industry is actively engaged in developing third party certification schemes¹³.

3. A similar point might be made about those who provide, install and maintain key protection systems such as fire alarm systems. There are already available third party certification schemes for such providers¹⁴.

4. Scottish Ministers intimated that regulation and enforcement of fire safety in care homes in Scotland had undergone substantial changes since Mr Reid carried out the risk assessment at Rosepark. Care homes are now inspected by Fire & Rescue Service inspectors. Care homes in Strathclyde are visited at least once a year by the Fire and Rescue Service and such inspection includes consideration of risk assessments. Inspectors from the eight Scottish Fire and Rescue Services receive training which covers fire risk assessment. It is suggested that under the current regime, significant shortcomings in risk assessments should be identified by audit.

5. In the sector specific guidance Practical Fire Safety for Care Homes (published 2008) there is a section explaining what a fire safety risk assessment is and describing how it should be carried out.

¹² Colin Todd, 28 July 2010, pm, pp. 40-44

¹³ Colin Todd, 27 July 2010, pm, pp. 83-86; 28 July 2010, am, pp. 1-23.

¹⁴ Colin Todd, 28 July 2010, pm, pp. 24-26

6. Scottish Ministers have indicated that United Kingdom Government has made it plain that they do not intend to change legislation in order to make the use of registered and accredited persons compulsory. The responsibility for the fire risk assessment remains at all times with the duty holder and cannot be delegated. However, it was said on behalf of Scottish Ministers that they recognise the benefits of the alternative approach of highlighting the benefits of using third party accreditation schemes.

7. Scottish Ministers in their submissions indicated that a project, sponsored by the Department of Communities and Local Government for the United Kingdom Government, is developing a standard for competent fire risk assessors. It is anticipated that third party certification will be used to ensure that fire assessors meet this standard. When that project is completed, Scottish Ministers will consider what equivalent scheme will be appropriate for Scotland. Revisions will be made to the sector specific, Practical Fire Safety for Care Homes, to make appropriate reference to the benefits of selecting fire risk assessors who have the appropriate accreditation.

8. As an interim measure, Scottish Ministers has written guidance for inclusion on the Fire Law website. This will assist duty holders with selection of external fire risk assessors. Existing assurance schemes described to the Inquiry by Colin Todd will be signposted in this guidance.

9. Scottish Ministers also refer to third party certification schemes relating to providers of key protection schemes such as fire alarms. As was indicated to the court in the course of the Inquiry Scottish Ministers are prepared to consider amendment of the sector specific guidance to make users aware of the existence and benefits of third party certification schemes. Scottish Ministers have inserted guidance on the Fire Law website on the benefit of third party certification for products and services. Similar guidance will be incorporated into revised versions of Scottish Ministers sector specific fire safety guide. "Practice Fire Safety Guidance for Care Homes" is scheduled for provision when my Determination is issued.

10. It should be emphasised that the responsibility to carry out a suitable and sufficient risk assessment rests on the employer and the person in control of premises

and this responsibility cannot be delegated. In the circumstances, I consider the response of Scottish Ministers to be appropriate.

OF7: Developments since the Rosepark Fire

Since the fire at Rosepark there have been a number of significant developments on which the Inquiry heard evidence. In particular:

OF7.1 At the instigation of the Scottish Ministers, a process of advisory visits by Fire Services to care homes throughout Scotland was instigated following the fire

(1) The fire set in train a process of advisory visits by the Fire and Rescue Authorities to care homes throughout Scotland. These visits were instructed by the Minister, Cathy Jamieson¹⁵. These visits proceeded on letters of authorisation from the Care Commission¹⁶. These were prepared because Strathclyde Fire and Rescue (“SF&R”), in particular, questioned whether it had power to enter care homes which did not require a fire certificate. At Annabel Fowles’ suggestion letters of authorisation were drafted as a means of overcoming the problem¹⁷.

(2) Fire Brigades required to make returns to the Scottish Executive detailing the number of homes visited and reporting any concerns in an “exception report”¹⁸. Reports were submitted on a fortnightly basis detailing the number of visits and the extent of any “exceptions”. Not many exceptions reports were returned¹⁹. The advisory visits were carried out by a mix of fire safety officers and operational crew²⁰.

(3) One matter that appears to have emerged from the advisory visits concerned bedroom doors. Graeme Fraser was involved in responding to correspondence raising concerns about individual bedroom doors being closed over at night. The concerns were around the impact closing doors had on quality of life. Mr Fraser spoke to a joint statement having been issued by Jacqueline Roberts and Jeff Ord (then HM Chief Inspector) on the necessity for a balance to be struck between quality of life and

¹⁵ Annabel Fowles, 10 June 2010, pm, pp67, 99;

¹⁶ Production 1381;

¹⁷ Annabel Fowles, 30 June 2010, pm, 67-69;

¹⁸ Graeme Fraser, 29 June 2010, pm, pp12-14; Fifth Inventory for Care Commission, item 2;

¹⁹ Graeme Fraser, 29 June 2010, pm, pp15-17;

²⁰ Graeme Fraser, 29 June 2010, pm, pp19-20;

safety. The original advice was probably issued by the Fire Services after the advisory visits. The thrust of the statement was that the doors needed to be closed, but there were ways in which a door could remain open and close in time of emergency (Mr Fraser mentioned swing free door closers). So operators should look at the practices they wished to put in place to ensure that the doors could remain shut at night or be closed in an emergency²¹.

OF7.2 Memoranda of Understanding were, in 2005, entered into between the Care Commission and the eight Fire and Rescue Services in Scotland

(1) In February 2005 Alan Sheach was seconded from HM Inspectorate to the Care Commission. The purpose of his secondment was to provide strategic fire safety advice to the Care Commission and to ensure that the Care Commission was fully informed of any fire safety issues nationally²². His appointment would facilitate closer dialogue between the Care Commission and the Fire and Rescue Authorities²³.

(2) Mr Sheach was the first fire safety adviser to be appointed by the Care Commission²⁴. There was no one at the Care Commission who had specific experience and knowledge, at strategic level, of fire legislation and fire safety²⁵. Mr Sheach's role also included the development of a Memorandum of Understanding with the Fire and Rescue Authorities, and following up on action plans arising from the advisory visits by the Fire Services which had been instituted after the fire at Rosepark²⁶.

(3) The Care Commission inspectors were not fire safety experts. The expertise lay with the Fire Services²⁷.

²¹ Graeme Fraser, 29 June 2010, pm, pp28-32;

²² Alan Sheach, 28 June 2010, pm, pp92-93;

²³ Ronald Hill, 25 June 2010, am, pp62-63;

²⁴ Alan Sheach, 28 June 2010, pm, pp92-93;

²⁵ Alan Sheach, 28 June 2010, pm, pp93-94;

²⁶ Alan Sheach, 28 June 2010, pm, pp94-95;

²⁷ Alan Sheach, 29 June 2010, am, pp37-38;

(4) Mr Sheach was responsible for preparing an *aide memoire* for Care Commission officers. It was an interim measure until the anticipated new legislation was introduced²⁸. Mr Sheach anticipated that that legislation would clarify where responsibility lay in terms of inspecting for fire safety²⁹

(5) Even after the fire, there was discussion involving Mr Sheach, on behalf of the Care Commission, and the Chief Fire Officers' Association about where responsibility lay for inspecting matters of fire safety³⁰. Mr Sheach's concern was to avoid a fire similar to the one at Rosepark. Since Care Commission inspectors were going into Care Homes on a regular basis the *aide memoire* would help them to focus on the key issues they should be looking at³¹.

(6) Mr Sheach's impression was that prior to the completion of the *aide memoire* Care Commission officers were inspecting log books, ensuring that training was being done, checking for fire alarm tests and looking for evidence that fire extinguishers were being maintained³².

(7) Mr Sheach explained that, while his impression was that these things were being done, it was an entirely different matter to understand the importance of many of the fire safety procedures and built in fire protection measures in the Home. Before the *aide memoire* was finalised Mr Sheach delivered fire safety lectures to staff and found that there was a need for them; they generated many hours of discussion, and Mr Sheach recognised the need to introduce the *aide memoire* to make sure that everything was being covered³³. Inspectors had been looking at records but not drilling down underneath their contents³⁴.

(8) Conversely, fire safety and fire risk assessments represented the bread and butter of a fire safety officer's work. Indeed, to interpret a fire risk assessment it was necessary to have a good grounding in fire safety. Since Care Commission officers

²⁸ Alan Sheach, 29 June 2010, am, pp38-39; Production 1382;

²⁹ Alan Sheach, 29 June 2010, am, p39;

³⁰ Alan Sheach, 29 June 2010, am, pp39-41;

³¹ Alan Sheach, 29 June 2010, am, pp41-42;

³² Alan Sheach, 29 June 2010, am, pp53-54;

³³ Alan Sheach, 29 June 2010, am, pp55-57;

³⁴ Alan Sheach, 29 June 2010, am, pp57-59, 88-89;

were not fire safety experts it was not their role to interpret the action plans derived from the post fire advisory visits. That was the role of the Fire Services³⁵.

(9) Mr Sheach was closely involved in the preparation of the Memoranda of Understanding between the Care Commission and Fire and Rescue Authorities, including the Memorandum executed by SF&R³⁶. The purpose of the Memoranda was to clarify the relationship between the parties, when the Fire Services would inspect care services or give opinions on fire safety in care homes, and to ensure that there was close cooperation and mutual understanding between the parties on fire safety matters³⁷.

(10) Memoranda of understanding were entered into between the Care Commission and the 8 Fire and Rescue Authorities in 2005. The memorandum in respect of SF&R was signed by Mrs Roberts on 13 September 2005³⁸.

(11) The purpose of the Memoranda of Understanding was to make absolutely clear the roles and responsibilities of the Fire and Rescue Services, and to make as clear as possible the understanding between the two bodies. Work had started on the memoranda in 2002. The fire at Rosepark added impetus to the process of getting the memoranda signed³⁹

(12) Appendix 4 dealt with the agreed arrangements. In respect of applications for new registration SF&R undertook to inspect the premises and report on their findings both to the applicant and to the Care Commission. A Fire Safety Officer would be required to comment on the care service's fire risk assessment⁴⁰.

(13) On page 16 of the Memorandum important provision was made in respect of fire safety inspections and specific fire safety concerns. SF&R agreed to undertake fire safety inspections in all care home services, the regularity being determined by a process of risk assessment of each service. The inspection process was not limited to

³⁵ Alan Sheach, 29 June 2010, am, p60;

³⁶ Alan Sheach, 29 June 2010, am, pp89-90; Production 1380;

³⁷ Alan Sheach, 29 June 2010, am, p90;

³⁸ Jacqueline Roberts, 1 June 2010, pm, pp12-13; Production 1380;

³⁹ Jacqueline Roberts, 1 June 2010, pm, pp13-14;

⁴⁰ Alan Sheach, 29 June 2010, am, p95;

services in respect of which concerns had been raised by the Care Commission⁴¹. It was a new programme of inspection which was proactive, not reactive, and involving inspection with the permission, and at the invitation, of the Care Commission⁴².

(14) The advisory visits instructed by the Minister had already occurred by the time the Memoranda were signed⁴³

OF7.3 Strathclyde Fire and Rescue. During the Inquiry the Chief Officer of SF&R, Brian Sweeney gave evidence, under reference to Operational Technical Note A124 (issued by SF&R in December 2008), about the operational changes and developments which have occurred since the fire at Rosepark. There follows a rehearsal of the evidence in connection with these matters, including the recommendations of Sir Graham Meldrum arising from his consideration of the circumstances of the fire, and Mr Sweeney’s explanation of the terms of the new guidance.

1. The recommendations of Sir Graham Meldrum

(1) In his report of August 2006⁴⁴ Sir Graham Meldrum set out, in Appendix 3, certain recommendations in light of his examination of the facts and circumstances of the Rosepark fire, and his experience of other fire incidents⁴⁵.

(2) Sir Graham recommended that Rosepark should be considered a large residential care home for the purposes of Operational Technical Note No A6⁴⁶ (“OTN A6”), and that the risk rating for such premises be reviewed such that consideration be given to treating establishments such as Rosepark as “special risk” for the purposes of OTN A6⁴⁷ (see RP5.2(3)).

⁴¹ Alan Sheach, 29 June 2010, am, pp96-98;

⁴² Brian Sweeney, 12 July 2010, pm, pp39-41;

⁴³ Alan Sheach, 29 June 2010, am, p106;

⁴⁴ Production 1408, p23;

⁴⁵ Sir Graham Meldrum, 6 August 2010, am, pp76ff.

⁴⁶ See chapter 25; Section 1(1)(d) and risk catagorisation;

⁴⁷ Sir Graham Meldrum, 6 August 2010, am, pp77-78; 80; Production 1408, p23, paras. 1-2, 4;

(3) Sir Graham invited consideration to be given to increasing the size of the pre-determined attendance at large residential care homes to 3 appliances⁴⁸.

(4) Sir Graham recommended that the additional information contained in the turn-out slip, an example of which was production 928, be displayed in a more prominent manner⁴⁹.

(5) Arising from the experience of a fire incident at St David's Nursing Home, Redcar, in 2004, Sir Graham recommended that SF&R give consideration to the following matters: (i) the national incident command procedures should ensure that an evacuation officer is appointed where appropriate, and (ii) a system of marking doors to indicate that a room had been searched should be implemented. Sir Graham thought that a tally capable of being hooked onto a door handle would be a way forward, although the circumstances of a severe fire meant that it could not be a perfect solution⁵⁰.

(6) Sir Graham also recommended that training of officers for incident command should emphasise the need to request adequate resources as soon as possible. Sufficient resources should always be available to ensure the safety of firefighters wearing breathing apparatus (BA), and a emergency team should be available to respond to distress signals received from the BA wearer⁵¹

2. Operational Technical Note A124

(7) In the course of giving evidence the Chief Officer of SF&R, Brian Sweeney explained the purpose and contents of Operational Technical Note No. A124 ("OTN A124")⁵². OTN A124 was produced by SF&R in response to the recommendations made by Sir Graham⁵³.

⁴⁸ Sir Graham Meldrum, 6 August 2010, am, pp78-79; Production 1408, p23, para. 3;

⁴⁹ Sir Graham Meldrum, 6 August 2010, am, pp80-81; Production 1408, p23, para. 5;

⁵⁰ Sir Graham Meldrum, 6 August 2010, am, pp81-88; Production 1408, p23, para. 7;

⁵¹ Sir Graham Meldrum, 6 August 2010, am, p88; Production 1408, p23, para. 8;

⁵² Production 2003;

⁵³ Brian Sweeney, 13 July 2010, pp13-14;

(8) OTN A124 was issued in December 2008. It is concerned with responding to incidents in residential care homes⁵⁴. It was the first technical note dealing specifically with residential care homes⁵⁵.

(9) OTN A124 lays down procedures for pre-planning and the gathering of operational intelligence⁵⁶. Within section 2 of OTN A124 provision is made for the establishment of a programme of visits to all care homes involving all watches for the purpose of gathering operational intelligence and formulating an emergency response plan⁵⁷. In relation to operational intelligence paragraph 2.1 of the guidance states that operational staff should make themselves familiar with the premises' risk assessment⁵⁸. The emergency response plan, a style for which is contained in appendix A of OTN A124, would be available on the VMDS system⁵⁹. The response plan contains information about access, types of residents and water supplies⁶⁰.

(10) It is provided in paragraph 2.4.1 of OTN A124 that "Each watch should visit each care home, within their station area, and familiarise themselves with the response plans at least once in every calendar year. All response plans should be promulgated to supporting stations; all watches in these stations must also be made aware of the current operational intelligence and response plans. Where practicable supporting stations should consider joint visits with the local station."⁶¹. Where SF&R has changed the duty system from, essentially, a four to a five watch system, each watch will now visit each care home in the station area annually⁶²

(11) In October 2007 the matter of pre-determined attendance at residential care homes was resolved in favour of an attendance of three appliances as an operational minimum⁶³.

⁵⁴ Brian Sweeney, 13 July 2010, am, p13; Sir Graham Meldrum, 6 August 2010, am, p77;

⁵⁵ Brian Sweeney, 13 July 2010, am, p15;

⁵⁶ Production 2003, p1, section 2;

⁵⁷ Production 2003, p1, para. 2.1;

⁵⁸ Brian Sweeney, 13 July 2010, am, p21p

⁵⁹ Brian Sweeney, 13 July 2010, am, pp28-30;

⁶⁰ Brian Sweeney, 13 July 2010, am, p30;

⁶¹ Production 2003, p3, para. 2.4.1; Brian Sweeney, 13 July 2010, am, pp3-4;

⁶² Brian Sweeney, 13 July 2010, am, p4;

⁶³ Brian Sweeney, 13 July 2010, am, pp5-7, 33-34;

(12) Since there should be no dubiety about what the appropriate access to premises involved in an incident is, the incident response plan should have determined the designated access point or points⁶⁴.

(13) Section 3.2 of OTN A124 emphasises the importance of staff contact and the obtaining of as much information as possible about (i) the nature of the incident; (ii) whether a roll call had been completed; (iii) whether any evacuation had been initiated or completed; (iv) whether there were high dependency residents involved; (v) the whereabouts of suitable havens for progressive evacuation, and (vi) any specific hazards. Particularly the first four of these matters had a direct resonance with the fire at Rosepark⁶⁵. There should be added to that list the importance of knowing whether or not bedroom doors were closed.

(14) Paragraph 3.2.1 states that “[In] all instances where fire is suspected or when responding to an alarm actuation the alarm panel must be consulted to establish the zones involved within the building.” This emphasizes that one key step for an incident commander to take, in addition to consulting with care home staff, would be to check the alarm panel and find out the location of the fire. The location of the fire would determine the incident commander’s operational actions thereafter⁶⁶. If the indication on the panel was that the detector had activated in an area other than where smoke had been observed by staff the incident commander would have to take both pieces of information into account in formulating his tactical plan⁶⁷.

(15) Section 4 of OTN A124 is concerned with the incident command system. Guidance is given on the approach to resourcing and the recording of dynamic risk assessment at an incident. In respect of resourcing in particular the guidance states that early consideration should be given to the scale of an incident and the resources that will be required, in particular where a large scale

⁶⁴ Brian Sweeney, 13 July 2010, am, pp37-38; Production 2003, para. 3.1;

⁶⁵ Brian Sweeney, 13 July 2010, am, pp38-43;

⁶⁶ Brian Sweeney, 13 July 2010, am, pp45-46;

⁶⁷ Brian Sweeney, 13 July 2010, am, p47; 54-56;

evacuation/rescue of non-ambulant residents may be required⁶⁸. This part of the guidance was advised by the experience of the fire at Rosepark⁶⁹

(16) Mr Sweeney gave evidence about a new system of resourcing an incident. Where formerly it was left to the judgement of the incident commander how many additional appliances to call to an incident, the new system is one which involves different levels of response. Thus Level 1 would represent the predetermined attendance. If additional resources were sought that would be done by the officer in charge seeking a Level 2 attendance. A level 2 attendance would be the equivalent, in the case of Rosepark, to making pumps 6. This new system is part of a UK wide system of incident command and was not necessarily introduced as a result of the fire at Rosepark⁷⁰.

(17) In section 5, on evacuation, there is a statement that “emergency evacuation is the responsibility of the care home management and cannot be delegated to the Fire and Rescue Service”. This should be understood to mean that a care home owner cannot simply rely on the Fire Service to deal with evacuation. An evacuation should be initiated, and, depending on conditions, will be completed either with the Fire Service or by the Fire Service alone⁷¹. The guidance calls for the appointment of a roll call officer to coordinate evacuation. This accords with Sir Graham Meldrum’s recommendation of the designation of an evacuation officer⁷²

(18) Sir Graham Meldrum prepared a report with comments on OTN A124⁷³.

(19) Sir Graham suggested that some thought be given by SF&R to the possibility of adding an appendix to OTN A124 containing a list of the type of questions to be asked of care home managers at incidents⁷⁴. I suggest this is a matter which should properly be considered by those charged with reviewing guidance within SF&R.

⁶⁸ Production 2003, section 4, para. 3;

⁶⁹ Brian Sweeney, 13 July 2010, am, pp71-72;

⁷⁰ Brian Sweeney, 13 July 2010, am, pp7-12, 163-169; see Production 2083, p25;

⁷¹ Brian Sweeney, 13 July 2010, am, pp75-76;

⁷² Sir Graham Meldrum, 6 August 2010, pm, p82;

⁷³ Production 2079;

⁷⁴ Sir Graham Meldrum, 6 August 2010, am, pp101-102;

(20) The only particular area of concern about OTN A124 related to evacuation, and the reference to emergency evacuation being the responsibility of care home management. Sir Graham's concern was that the impression was left that fire officers would be taking instructions in evacuation from care home staff⁷⁵. The section of OTN A124 most nearly concerned is derived from "Practical Fire Safety Guidance for Care Homes" at paragraph, page 19, paragraph 75⁷⁶. Sir Graham considered that this was a matter requiring clarification in both OTN A124 and the Practical Fire Safety Guidance⁷⁷.

(21) Mr Sweeney did not share the concern. He thought it was a matter of common sense. The guidance and OTN A124 reflected the reality which is that the staff must initiate an evacuation (and not wait on the Fire Service arriving), and conduct it until the fire service arrive. It would obviously be for the Fire Service to evacuate residents from smoke filled areas⁷⁸. There does not appear, accordingly, to be a problem in practice. There is, perhaps, an infelicity in the wording "cannot be delegated". This is a point which should be considered by those responsible for the guidance, and those charged with reviewing guidance within SF&R.

(22) The suggestion by Sir Graham that tallies be deployed did not meet with Mr Sweeney's agreement. No satisfactory solution had been found⁷⁹. Ultimately it is a problem for the Fire Service to resolve.

(23) In the circumstances which I have set out in paragraphs (7) to (22) hereof, it is apparent that significant changes have been put into effect by SF&R which address the concerns identified in my findings and the recommendations of Sir Graham Meldrum. In particular:

- (i) there are now annual familiarisation visits by each watch;
- (ii) all operational staff are familiar with the premises risk assessment;

⁷⁵ Sir Graham Meldrum, 6 August 2010, am, pp95-98;

⁷⁶ Production 1943;

⁷⁷ Production 2078, p3; Sir Graham Meldrum, 6 August 2010, am, pp104-106;

⁷⁸ Brian Sweeney, 13 July 2010, pm, pp4-11;

⁷⁹ Brian Sweeney, 13 July 2010, am, pp158-161;

- (iii) Sir Graham Meldrum's recommendation that information in the turnout slip such as access be displayed in a more prominent manner has been accepted. SF&R have an emergency response plan for premises such as Rosepark is promulgated and available on the VMDS system;
- (iv) the emergency response plan will contain information about the designated point of access and the types of resident;
- (v) the pre-determined attendance for residential care homes is now three appliances;
- (vi) The specific information should be obtained from staff on arrival is set out in OTN A124. I have already noted that there should be added to this list information as to whether or not bedroom doors are closed;
- (vii) in all instances where fire is suspected when responding to an alarm actuation the alarm panel must be consulted to establish the zones involved within the building;
- (viii) early consideration of resourcing the incident - level 1 is the predetermined attendance of three appliances. If additional resources are required, a level 2 attendance would be sought. This would involve a further three appliances – the equivalent of “make pumps 6”.

In my opinion the terms of the guidance in OTN A124, produced by SF&R in response to the recommendations of Sir Graham Meldrum, substantially address the areas of concern raised by him arising out of his examination of the operations of SF&R at Rosepark on 31 January 2004. However, I recommend there should be added to section 3.2 of OTN A124 the importance of ascertaining whether or not bedroom doors are closed when obtaining information from staff on arrival.

OF7.4 The legislation in relation to fire safety which had been in place at the time of the fire was replaced by a comprehensive new legislative framework, in the Fire (Scotland) Act 2005 and the Fire Safety (Scotland) Regulations 2006.

There follows

OF7.4.1 a summary of the legislative position prior to the enactment of Part III of the Fire (Scotland) Act 2005

OF7.4.2 the legislative history of the Fire (Scotland) Act 2005

OF7.4.3 the relevant sections of Part III of the Fire (Scotland) Act 2005, which in particular specify that the “enforcing authority” in terms of the Act is a Fire and Rescue Authority, (or a joint Fire and Rescue Board where a scheme for combining two or more Fire and Rescue Authorities has been implemented in terms of section 2(1) of the 2005 Act). Their duties are specified in the Act, including in particular the power at any reasonable time to enter relevant premises and inspect the whole part of the relevant premises and anything in them

OF7.4.4 the relevant sections of The Fire Safety (Scotland) Regulations 2006

OF7.4.5 Strategic Enforcement Guidance for Fire and Rescue Authorities issued by Scottish Ministers in August 2006 – this was not sector specific

OF7.4.6 Fire Safety Guidance Booklet and preparation of section specific guidance

OF7.4.7 Practical Fire Safety Guidance for Care Homes – latest version published by Scottish Ministers in February 2008

OF7.4.8 Part III of the 2005 Act and the Care Commission. Care Commission no longer responsible for considering fire safety measures. That responsibility lies with the Fire and Rescue Services

OF7.4.9 Enforcement of the 2005 Act and the 2006 Regulations by SFRS

OF7.4.10 Current approach of Care Commission to the Fire (Scotland) Act 2005

What I have set out below follow closely the terms of the Crown’s submissions. I deal with them in turn:

OF7.4.1. Summary of the Legislative Position prior to the enactment of Part III of the Fire (Scotland) Act 2005

1. The regulation and enforcement of fire safety in care homes at the time of the fire at Rosepark was fragmented. The need for reform had been recognised prior to the fire at Rosepark.
2. The Nursing Homes (Registration) (Scotland) Act 1938 had been repealed and the Nursing Homes (Registration) (Scotland) Regulations 1990 revoked in favour of a less prescriptive regime of fire safety regulation organized under the auspices of the Care Commission. The circumstances of how that occurred are explained in chapter 27. The Care Commission's regime of inspection, although regular, was not calculated to identify significant breaches of fire safety.
3. Enforcement of the Fire Precautions (Workplace) Regulations 1997 was entirely dependent on a risk based approach which determined the premises that would attract inspection. At least in Strathclyde, care homes were not being inspected at all at the time of the fire. The reasons for that are explored in chapter 46(1)
4. Section 10 of the Fire Precautions Act 1971 authorised Fire and Rescue Authorities to seek a prohibition or restriction on the use of premises involving excessive risk to persons in case of fire (itself a remedy of last resort, as explained in chapter 40(2)). That section apart, the situations which would have caused Strathclyde Fire and Rescue Service ("SFRS") to be at a care home prior to the fire were (i) in the context of section 1(1)(d) visits or the giving of advice under section 1(1)(f) of the Fire Services Act 1947; (ii) a situation where an issue of concern has been raised direct by a third party; (iii) at the request of the regulator (in which case SFRS would inspect), and (iv) at the invitation of the owner of the care home⁸⁰
5. At the time of the Rosepark fire, the organisation charged with regulating fire safety in care homes did not have the experience to do so adequately. In respect of Rosepark the organisation which did have that expertise, Strathclyde Fire and Rescue, was not inspecting care homes routinely.

⁸⁰ Brian Sweeney, 12 July 2010, pm, pp52-55;

OF7.4.2 The legislative history of the Fire (Scotland) Act 2005

1. Since October 2003 Joanne Macdougall has been employed by that part of the Civil Service in Scotland known as Scottish Resilience (formerly the Fire and Civil Contingencies Division within the Department of Justice of Scottish Ministers)⁸¹.
2. Scottish Resilience is the point of liaison between Ministers of Scottish Ministers and the emergency services. It provides a forum for discussion on matters of policy. Its members work on legislation affecting the emergency services. One such example was the Fire (Scotland) Act 2005⁸².
3. After taking up her duties with Scottish Resilience in October 2003 Miss Macdougall joined a small team working on drafting the Bill which ultimately became the Fire (Scotland) Act 2005⁸³.
4. It follows that new fire safety legislation was in contemplation before the fire at Rosepark in January 2004. Indeed the first consultation relative to new legislation was launched by the Scottish Executive in early 2002. Legislation was being looked at across not just Scotland but also England and Wales⁸⁴.
5. The policy objectives underlying the new legislation derived from a recognition that the role of Fire Brigades had developed from the time when they only fought fires. There was a desire to recognise the broader role of Fire Services in statute and also to make community fire safety a statutory responsibility of the Fire Services⁸⁵.
6. There was, further, a desire to revise fire safety legislation which, Miss MacDougall said, was very fragmented. Hitherto there had been the Fire Services Act 1947, the Fire Precautions Act 1971, and the Fire Precautions (Workplace) Regulations 1997. The Fire (Scotland) Bill would also give strategic objectives to the Fire Services⁸⁶. According to Miss MacDougall the government had come under some

⁸¹ Joanne MacDougall, 28 June 2010, am, pp1-2, 4-5;

⁸² Joanne MacDougall, 28 June 2010, am, p2;

⁸³ Joanne MacDougall, 28 June 2010, am, p5;

⁸⁴ Joanne MacDougall, 28 June 2010, am, p6; Colin Todd, 28 July 2010, am, pp59-60;

⁸⁵ Joanne MacDougall, 28 June 2010, am, p7;

⁸⁶ Joanne MacDougall, 28 June 2010, am, pp7-8;

criticism for not having given strategic direction to the Fire and Rescue Services (following a review by Professor Sir George Bain). The aim was that the enforcement duties in the Fire (Scotland) Bill would be clearer about what Ministers were expecting from enforcing authorities⁸⁷

7. Miss Macdougall remained on the Fire Bill team as the legislation was taken forward towards implementation⁸⁸.

8. The approach to enforcement of the fire safety duties in Part III of the 2005 Act was one which, as will be seen, was based on risk profiling of premises and activities subject to the new legislation. Miss MacDougall understood that this reflected the approach under health and safety legislation hitherto, and in particular the Fire Precautions (Workplace) Regulations 1997⁸⁹.

OF7.4.3 Part III of the Fire (Scotland) Act 2005 (“the 2005 Act”)

9. Section 8 is concerned with the obligation of fire authorities to promote fire safety in their area. It contains a new statutory duty in connection with the giving of information, publicity and encouragement in respect of the steps to be taken to prevent fires, and death or injury by fire (known as Community Safety and Community Safety Education⁹⁰).

10. Section 9 is concerned with fire-fighting, and arrangements pursuant to extinguishing fires and protecting life and property in the event of fire. Section 9(2)(b) is a new provision in connection with the obtaining of information required or likely to be required for the purposes of fire-fighting.

11. Part 3 of the 2005 Act is concerned with the fire safety duties of an employer⁹¹.

12. The “enforcing authority” referred to in the succeeding provisions of Part III of the 2005 Act is a fire and rescue authority, (or a joint fire and rescue board where a

⁸⁷ Joanne MacDougall, 28 June 2010, am, p68;

⁸⁸ Joanne MacDougall, 28 June 2010, am, p9;

⁸⁹ Joanne MacDougall, 28 June 2010, am, p60;

⁹⁰ Brian Sweeney, 12 July 2010, pm, pp59-60;

⁹¹ Joanne MacDougall, 28 June 2010, am, p10;

scheme for combining two or more fire and rescue authorities has been implemented in terms of section 2(1) of the 2005 Act)⁹²

13. Section 53, as enacted, provided *inter alia* as follows:-

“(1) Each employer shall ensure, so far as is reasonably practicable, the safety of the employer's employees in respect of harm caused by fire in the workplace.

(2) Each employer shall—

(a) carry out an assessment of the workplace for the purpose of identifying any risks to the safety of the employer's employees in respect of harm caused by fire in the workplace;

(b) take in relation to the workplace such of the fire safety measures as are necessary to enable the employer to comply with the duty imposed by subsection (1).

(3) Where under subsection (2)(a) an employer carries out an assessment, the employer shall—

(a) in accordance with regulations under section 57, review the assessment; and

(b) take in relation to the workplace such of the fire safety measures as are necessary to enable the employer to comply with the duty imposed by subsection (1).

(4) Schedule 2 makes provision as to the fire safety measures.”

14. Section 54, as enacted, provided *inter alia*, as follows:

“(1) Where a person has control to any extent of relevant premises the person shall, to that extent, comply with subsection (2).

(2) The person shall—

(a) carry out an assessment of the relevant premises for the purpose of identifying any risks to the safety of relevant persons in respect of harm caused by fire in the relevant premises; and

(b) take in relation to the relevant premises such of the fire safety measures as in all the circumstances it is reasonable for a person in his position to take to ensure the safety of relevant persons in respect of harm caused by fire in the relevant premises...”

⁹² 2005 Act, section 6;

15. Section 55, as enacted, provided *inter alia* as follows:

“... (2) The person shall implement the fire safety measures on the basis of the considerations mentioned in subsection (3).

(3) Those considerations are—

- (a) avoiding risks;
- (b) evaluating risks which cannot be avoided;
- (c) combating risks at source;
- (d) adapting to technical progress;
- (e) replacing the dangerous with the non-dangerous or the less dangerous;
- (f) developing a coherent overall fire prevention policy which covers technology, organisation of work and the influence of factors relating to the working environment;
- (g) giving collective fire safety protective measures priority over individual measures; and
- (h) giving appropriate instructions to employees.”

16. Section 61, as enacted, provided *inter alia* as follows:

- (1) Each enforcing authority shall enforce the Chapter 1 duties.
- (2) In carrying out the duty imposed by subsection (1), an enforcing authority shall have regard to any guidance given by the Scottish Ministers.
- (3) For the purpose of carrying out the duty imposed by subsection (1), an enforcing authority may appoint enforcement officers.
- (4) If the enforcing authority is the person appointed under section 43(1)(a), the authority may, subject to subsection (5), appoint under subsection (3) a person who has been appointed under subsection (3) as an enforcement officer by a relevant authority.

17. Section 62, as enacted, provided *inter alia* as follows:

“(1) An enforcement officer may do anything necessary for the purpose mentioned in section 61(3).

(2) An enforcement officer may in particular under subsection (1)-

(a) at any reasonable time (or, in a situation which in the opinion of the officer is or may be dangerous, at any time), enter relevant premises and inspect the whole or part of the relevant premises and anything in them;

(b) take onto the relevant premises—

(i) such other persons; and

(ii) such equipment,

as the officer considers necessary;

(c) require a person on the relevant premises who is subject to any of the Chapter 1 duties to provide the officer with any—

(i) facilities, information, documents or records; or

(ii) other assistance,

which relate to those duties and which the officer may reasonably request;

(d) inspect and copy any documents or records on the relevant premises or remove them from the relevant premises...”

18. Sections 63 and 64 made provision for the service of prohibition and enforcement notices by the enforcing authority.

19. Section 79(1) defined “relevant person” (so far as relevant for present purposes) as “any person who is, or may be, lawfully in the premises” and “any person (i) who is, or may be, in the immediate vicinity of the premises, and (ii) whose safety would be at risk in the event of fire in the premises”

20. The fire safety duties introduced by section 53(4) of the 2005 Act were set out in schedule 2, thus:-

“Subject to paragraph 2, the fire safety measures are—

(a) measures to reduce the risk of—

(i) fire in relevant premises; and

(ii) the risk of the spread of fire there;

(b) measures in relation to the means of escape from relevant premises;

- (c) measures for securing that, at all material times, the means of escape from relevant premises can be safely and effectively used;
- (d) measures in relation to the means of fighting fires in relevant premises;
- (e) measures in relation to the means of—
- (i) detecting fires in relevant premises; and
- (ii) giving warning in the event of fire, or suspected fire, in relevant premises;
- (f) measures in relation to the arrangements for action to be taken in the event of fire in relevant premises (including, in particular, measures for the instruction and training of employees and for mitigation of the effects of fire); and
- (g) such other measures in relation to relevant premises as may be prescribed by the Scottish Ministers by regulations...”

21. Part 3 of the 2005 Act came into force on 1 October 2006⁹³. It is to be particularly noted that the persons on whom obligations were placed in terms of the 2005 Act were:

- 6 the employer (section 53)
- (ii) the person who has control to any extent of relevant premises (section 54)
- (iii) the enforcing authority “is the Fire and Rescue Authority”.

OF7.4.4 The Fire Safety (Scotland) Regulations 2006

22. Miss MacDougall was involved as lead policy official in the process of drawing up what became the Fire Safety (Scotland) Regulations 2006 (“the 2006 Regulations”)⁹⁴.

23. The 2006 Regulations also came into force on 1 October 2006⁹⁵,

24. They brought about the revocation of the Fire Precautions (Workplace) Regulations 1997, the Fire Precautions (Workplace) (Amendment) Regulations 1999,

⁹³ Production 2029, p1; regulation 2;

⁹⁴ Production 2019; Joanne MacDougall, 28 June 2010, am, pp29-30;

⁹⁵ Joanne MacDougall, 28 June 2010, am, p31;

and those parts of the Management of Health and Safety at Work Regulations 1999 which related to the 1997 Regulations⁹⁶

25. Part II of the 2006 Regulations made further provision for risk assessments undertaken for the purposes of sections 53 or 54 of the 2005 Act. Regulation 3, in particular, requires such assessments to be kept under review.

26. The regulations concerned with fire safety are set out in Part III of the 2006 Regulations. Regulation 10 set out the requirement for appropriate fire safety arrangements, and the recording of those arrangements, for the effective planning, organization, control, monitoring and review of the fire safety measures within schedule 2 of the 2005 Act.

27. Regulation 13 made provision for means of escape in order to ensure the safety of “relevant persons”⁹⁷. Regulation 14 was concerned with procedures for serious and imminent danger from fire and for danger areas. Thus a person with duties under sections 53 or 54 of the 2005 Act was to “establish and, where necessary, give effect to appropriate procedures, including fire safety drills, to be followed in relevant premises in the event of serious and imminent danger to relevant persons from fire”, as well as “nominate competent persons to implement those procedures in so far as they related to the evacuation of relevant persons from relevant premises”, and “ensure that no relevant person has access to any area to which it is necessary to restrict access on grounds of safety in respect of harm caused by fire, unless the person concerned has received adequate instruction.”

28. Regulation 16 made provision for maintenance of premises. Regulation 20 set out what an employer was bound to do in relation to “adequate fire safety training” which was to be repeated periodically when appropriate⁹⁸.

29. The point was made in the explanatory note that Part III of the 2005 Act replaced fire certification under the Fire Precautions Act 1971⁹⁹.

⁹⁶ Fire (Scotland) Act 2005 (Consequential Modifications and Savings) (No.2) Order 2006, schedule 2; Production 1879;

⁹⁷ As defined in section 79(1) of the 2005 Act supra.

⁹⁸ Regulation 20(2)(b);

⁹⁹ Joanne MacDougall, 28 June 2010, am, p39;

30. The task of the enforcing authority was to make sure that the legislation was being complied with, and to make sure that people were aware of their responsibilities¹⁰⁰.

31. Neither the 2005 Act nor the 2006 Regulations imposed on the enforcing authority any particular regime of inspection. It was a matter for the enforcing authority to determine the frequency of inspections under its integrated risk management plans¹⁰¹.

OF7.4.5 Strategic Enforcement Guidance for Fire and Rescue Authorities

32. In a Circular dated 27 September 2006, the Scottish Ministers issued guidance on enforcement under the title *Strategic Enforcement Guidance for Fire and Rescue Authorities and Joint Fire and Rescue Boards*¹⁰².

33. Fire and Rescue Authorities are bound to have regard to the guidance¹⁰³.

34. The guidance states that each Fire and Rescue Authority should have in place a programme of enforcement audit for premises to assess compliance with the duty holder's responsibilities under Part III of the 2005 Act. The guidance does not suggest fixed frequencies of audit, but some authorities may allocate periodic fixed term frequencies according to risk rating of premises¹⁰⁴.

35. Paragraphs 16 to 20 give particulars about what is involved in the risk based approach to enforcement activity, which activity should focus primarily on those premises and activities which give rise to the most serious risk of harm¹⁰⁵.

36. Paragraphs 21 to 24 give guidance on dealing with compliance failure¹⁰⁶. There is also guidance about the giving of information and advice, when requested, about fire safety under section 8(2) of the 2005 Act¹⁰⁷.

¹⁰⁰ Joanne MacDougall, 28 June 2010, am, pp15-16;

¹⁰¹ Joanne MacDougall, 28 June 2010, am, pp16-20; cf Production 1835, section 25(3);

¹⁰² Production 1942; Joanne MacDougall, 28 June 2010, am, pp40-43;

¹⁰³ 2005 Act, section 61(2); Joanne MacDougall, 28 June 2010, am, p44; Production 1942, para. 2;

¹⁰⁴ Joanne MacDougall, 28 June 2010, am, pp45-48; Production 1942, paras. 8-12;

¹⁰⁵ Joanne MacDougall, 28 June 2010, am, pp51-55;

37. Accordingly, in terms of the guidance, the frequency of audit would be dependent on the outcome of the risk profiling exercise undertaken by each Fire and Rescue Authority¹⁰⁸. Evidence was given to the Inquiry that SF&R have now in place arrangements whereby residential care homes are inspected once every year.

OF7.4.6 Fire Safety Guidance Booklet¹⁰⁹ and preparation of sector specific guidance

38. Joanne MacDougall was the lead policy official responsible for preparing guidance in relation to Part III of the 2005 Act. The Fire Safety Guidance Booklet was first published in August 2006, and distributed widely¹¹⁰. It pre-dated the new legislation and was intended to alert people to the forthcoming legislative changes¹¹¹.

39. The Fire Safety Guidance Booklet was not sector specific. However, on page 11, specific reference was made to care homes and the importance of fire safety measures in such premises. This was an introduction pending publication of the sector specific guidance¹¹². In the wake of the Rosepark fire Ministers had, in 2004, given statements to the effect that specific guidance would be issued¹¹³. In the summer of 2005, work had started on producing guidance specific to the circumstances of care homes¹¹⁴. There was limited consultation in around August 2005 leading to a period of full public consultation in November of that year¹¹⁵. This involved a draft Fire Safety Guide, production 1379¹¹⁶. Practical Fire Safety Guidance for Care Homes was first published on the fire law website in September 2006¹¹⁷. Hard copies were distributed about a year later¹¹⁸.

¹⁰⁶ Joanne MacDougall, 28 June 2010, am, pp55-57;

¹⁰⁷ Joanne MacDougall, 28 June 2010, am, pp57-58; cf section 1(1)(f) of the Fire Services Act 1947;

¹⁰⁸ Joanne MacDougall, 28 June 2010, am, p62;

¹⁰⁹ Production 1939

¹¹⁰ Joanne MacDougall, 28 June 2010, am, pp76-77;

¹¹¹ Joanne MacDougall, 28 June 2010, am, pp68-70;

¹¹² Joanne MacDougall, 28 June 2010, am, pp79-80;

¹¹³ Joanne MacDougall, 28 June 2010, am, pp84-85;

¹¹⁴ Joanne MacDougall, 28 June 2010, am, pp71-72;

¹¹⁵ Joanne MacDougall, 28 June 2010, am, pp85-86;

¹¹⁶ Joanne MacDougall, 28 June 2010, am, pp86-87;

¹¹⁷ Joanne MacDougall, 28 June 2010, am, p72;

¹¹⁸ Joanne MacDougall, 28 June 2010, am, pp100-101;

OF7.4.7 Practical Fire Safety Guidance for Care Homes

40. The latest version¹¹⁹ was published in February 2008. While there were two earlier versions there were no significant changes made to the guidance¹²⁰. The guidance was prepared with input from fire specialists who would have been familiar with the circumstances of the investigation into the fire at Rosepark¹²¹.

41. In the opinion of Colin Todd (whose credentials as a fire safety expert are of the highest order and whose impressive CV is set out at production 2100) the guidance contained in production 1943 was “excellent”. Mr Todd explained that there had been a “fantastic” consultation exercise. Scottish Ministers sought comments as widely as possible¹²², and the product was excellent as a result¹²³. It gives practical guidance to management, the Fire Service and regulators.

A consideration of this document indicates that it clearly addresses and gives practical guidance from management on all the major issues which have been canvassed in this Inquiry. Chapter 3 deals with “What the Law Requires”; Chapter 4 “Fire Safety Risk Assessment”; Chapter 5 “Managing Fire Safety”; Chapter 6 “Reducing the Likelihood of Fire”; Chapter 7 “Restricting the Spread of Fire and Smoke”; Chapter 8 “Means of Escape”; Chapter 9 “Ensuring Means of Escape can be Used”; Chapter 10 “Means of Detecting Fire and Giving Warning”; Chapter 11 “Means of Fighting Fire”; Chapter 12 “Fire and Rescue Service Facilities”. The 15 technical annexes deal with fire compartmentation, fire separation, structural fire protection, fire spread through cavities, fire spread on internal linings, fire spread on external walls, fire spread from neighbouring buildings, escape, doors, escape lighting, signs, fire alarm systems, portable fire extinguishers, automatic life safety suppression systems (sprinkler systems), furniture, textiles, bedding and sleepwear.

¹¹⁹ Production 1943;

¹²⁰ Joanne MacDougall, 28 June 2010, am, pp109-110;

¹²¹ Joanne MacDougall, 28 June 2010, pm, pp35-36;

¹²² Joanne MacDougall, 28 June 2010, pm, pp38-41;

¹²³ Colin Todd, 27 July 2010, am, pp145-146;

There is, in this document, the clearest guidance to those who would seek to administer and regulate care homes in Scotland. It represents a significant and appropriate response by Scottish Ministers to the issues which have been raised by Rosepark.

Colin Todd in the course of the Inquiry made a number of recommendations which he felt might supplement this guidance. These are contained in his report entitled “Suggested Recommendations for Consideration by the Inquiry” which is production 1779. These recommendations and the response of Scottish Ministers are discussed at Chapter 46(11).

OF7.4.8 Part III of the 2005 Act and the Care Commission

42. Joanne MacDougall’s understanding was that prior to the passing of the new legislation the Care Commission had to consult with the Fire and Rescue Authorities when a home sought to be registered. In recognition of the fact that it was the Fire and Rescue Authorities who had the expertise where fire safety was concerned one of the intended reforms was that fire safety enforcement should be the responsibility of the Fire and Rescue Authorities. There would be repealed any fire safety references in licensing or registration legislation so that it would be obvious that the appropriateness of fire safety measures was a matter for the Fire and Rescue Authorities¹²⁴.

43. After 1 October 2006 the Care Commission still had responsibility for aspects of care homes (including registration). But they were, according to Miss MacDougall, no longer responsible for considering fire safety measures. That responsibility lay with the Fire and Rescue Service. However, in considering whether to register a new care service the Care Commission could still seek the advice of Fire and Rescue Authorities, and Miss MacDougall spoke of encouraging continued communication between the Care Commission and Fire and Rescue Authorities even after 1 October 2006¹²⁵.

¹²⁴ Joanne MacDougall, 28 June 2010, am, pp121-122;

¹²⁵ Joanne MacDougall, 28 June 2010, am, pp126-128;

44. One of the objectives of the Bill team was to reflect in the legislation the fact that the Care Commission would not have any participation in fire safety issues¹²⁶. That the Care Commission was to cease to have any statutory involvement in matters of fire safety was reflected in the amendments to the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002¹²⁷, effected by the Fire (Scotland) Act 2005 (Consequential Modifications and Savings) (No 2) Order 2006, regulation 6¹²⁸. However, in practice, the Care Commission might still wish to seek the advice of the Fire and Rescue Service in respect of the appropriateness of fire safety measures in a care home¹²⁹.

45. In that state of affairs Miss MacDougall was surprised that there were still references to fire safety in the National Care Standards published in November 2007, and would have queried the inclusion of fire safety in the standards given the changes to the legislation¹³⁰. Indeed she would have expected to be consulted as a member of what was then the Fire and Civil Contingencies Division of the Department of Justice. The intention was that fire safety should be completely taken away from the Care Commission and placed in the hands of the Fire Brigade¹³¹.

46. Miss MacDougall's understanding of the position was better reflected by the statement in the document numbered 3 in the first inventory of productions for the Care Commission headed *Fire Safety Guidance for 24-Hour Services*, and the statement in that document that a consequence of part 3 of the 2005 Act was that *with immediate effect, Care Commission Officers will not inspect or regulate any fire safety matters*.¹³² She accepted, however, that if the purpose of retaining references to fire safety in the national care standards reflected a position in which the Care Commission was not averse to being kept advised of fire safety matters then there would be no particular difficulty. But the Care Commission was not intended to have any responsibility for fire safety enforcement¹³³.

¹²⁶ Joanne MacDougall, 28 June 2010, am, pp130-131;

¹²⁷ Production 1871;

¹²⁸ Production 1879, and see Joanne MacDougall, 28 June 2010, am, pp133-136;

¹²⁹ Joanne MacDougall, 28 June 2010, am, p132;

¹³⁰ Production 1728, p22; Joanne MacDougall, 28 June 2010, am, p140;

¹³¹ Joanne MacDougall, 28 June 2010, am, pp140-142;

¹³² Joanne MacDougall, 28 June 2010, am, pp143-145;

¹³³ Joanne MacDougall, 28 June 2010, pm, pp30-31;

OF7.4.9 Enforcement of the 2005 Act and the 2006 Regulations by SFRS

47. Enforcement of the Part III duties is undertaken on the basis of assessment of risk¹³⁴. In the case of care homes, however, all care homes are visited once per year¹³⁵.

48. Since 2005 Fire and Rescue Authorities have required to prepare an Integrated Risk Management Plan detailing how they will respond to risks in their area¹³⁶.

49. The guidance, production 1942, recognised that some Fire and Rescue authorities might wish to allocate periodic fixed frequencies for auditing certain premises¹³⁷. It was under reference to that paragraph that, in Strathclyde, the view was taken that care homes should be visited once per year¹³⁸.

50. At an audit (or inspection) normally two enforcement officers are in attendance. They would obtain a copy of the premises risk assessment and go through it with the owner, occupier or responsible person. They would take a view on the safety and suitability of the assessment and conduct an inspection of the premises to make sure that the precautions listed could be attested to first hand¹³⁹.

51. The overall approach to risk and auditing of its risk enforcement strategy would be made subject to review¹⁴⁰. The inspections could be either announced or unannounced, depending on how risky the premises were assessed to be¹⁴¹. Mr Sweeney did not necessarily subscribe to the view that all visits should be unannounced¹⁴².

52. Mr Sweeney's view was that the Care Commission did not retain any involvement in matters of fire safety¹⁴³.

¹³⁴ Brian Sweeney, 12 July 2010, pm, p64;

¹³⁵ Brian Sweeney, 12 July 2010, pm, p65;

¹³⁶ Brian Sweeney, 12 July 2010, pm, p71;

¹³⁷ Production 1942, para. 12;

¹³⁸ Brian Sweeney, 12 July 2010, pm, pp74-75;

¹³⁹ Brian Sweeney, 12 July 2010, pm, pp76-77;

¹⁴⁰ Brian Sweeney, 12 July 2010, pm, p79;

¹⁴¹ Brian Sweeney, 12 July 2010, pm, p80;

¹⁴² Brian Sweeney, 12 July 2010, pm, pp81-82;

¹⁴³ Brian Sweeney, 12 July 2010, pm, p83;

53. There may be some subtle differences between enforcement under the 2005 Act and enforcement according to the memorandum of understanding with the Care Commission (which was a holding operation until October 2006)¹⁴⁴.

54. Under reference to the National Care Standards, November 2007, Mr Sweeney stated that he was unaware of the degree of current interaction. However, he would always encourage the best possible maintenance of relationships to ensure staff and patient safety; it looked as though the National Care Standards evidenced a desire on the part of the Care Commission to continue fostering a fire safety regime that was suitable¹⁴⁵. Whether that be so or not, Mr Sweeney readily accepted that it was now for the Fire and Rescue Services to enforce the Part III duties¹⁴⁶ and it did so by inspecting care homes at least annually.

OF7.4.10 Current Attitude of Care Commission to Issues of Fire Safety and the Fire (Scotland) Act 2005

55. Ronald Hill, Director of Inspection Services at the Care Commission, gave evidence about the current approach of the Care Commission to issues of fire safety.

56. Mr Hill did not have a detailed understanding of how the Fire and Rescue Services went about enforcing the Part III duties. He confirmed the terms of the amendments to the 2002 Regulations by the removal from regulation 19 of the references to records of fire procedure and drills¹⁴⁷. However, the Care Commission did still look at matters of fire safety because there continued to be references to fire safety in the National Care Standards¹⁴⁸. The Care Commission does not have responsibility for enforcement of fire safety but it does not ignore matters that come to its attention¹⁴⁹. Otherwise it would not know whether there was any need to report matters to the Fire and Rescue Service¹⁵⁰

¹⁴⁴ Brian Sweeney, 12 July 2010, pm, pp83-84;

¹⁴⁵ Brian Sweeney, 12 July 2010, pm, pp93-94;

¹⁴⁶ Brian Sweeney, 12 July 2010, pm, p94;

¹⁴⁷ Production 1879, regulation 6;

¹⁴⁸ Ronald Hill, 25 June 2010, am, pp78-84;

¹⁴⁹ Ronald Hill, 25 June 2010, am, p121;

¹⁵⁰ Ronald Hill, 25 June 2010, am, pp115-117, 122-124;

57. No change was effected to the wording of the National Care Standards in either 2005¹⁵¹ or 2007¹⁵². So fire safety was not ignored by the Care Commission after 1 October 2006. The way Jacqueline Roberts put it was that you could not ignore the fact that you would need good systems around fire safety when you were visiting care services. It was like environmental health. The Care Commission was not responsible for environmental health issues, but if the inspectors picked up examples of clearly poor environmental health practice they would refer the matter to environmental health. It would be unrealistic for Care Commission staff to visit a care service and not notice an obvious fire safety risk and refer it to the enforcing authority, namely the Fire and Rescue Authority. Since wording remains in the National Care Standards, fire safety issues cannot be ignored. However, Care Commission officers do not pretend to be fire safety experts. They look at a whole range potential risks¹⁵³.

58. At a practical level Care Commission officers all received guidance on how to approach their inspections in light of the passing of Part III of the 2005 Act¹⁵⁴. The guidance contained a sample of the Fire Safety Checklist which now requires to be completed and submitted to the Fire and Rescue Service as part of the process of registration. The way in which the exercise appears to operate is that the Fire and Rescue Authority will require to approve the arrangements covered by the checklist. Indeed Mr Hill was aware of correspondence in which the Care Commission was advised by the Fire and Rescue Service that the arrangements were not satisfactory. In that event there would be no registration until the matters deemed unsatisfactory had been resolved¹⁵⁵. The notes attached to the checklist state that the checklist is not itself a fire risk assessment for the purposes of the 2005 Act¹⁵⁶.

¹⁵¹ Production 1944;

¹⁵² Production 1738; Ronald Hill, 25 June 2010, am, pp85-90; Jacqueline Roberts, 2 June 2010, am, pp25-33;

¹⁵³ Jacqueline Roberts, 2 June 2010, am, pp33-34;

¹⁵⁴ First Inventory for Care Commission, Item 3; Ronald Hill, 25 June 2010, am, pp100-101;

¹⁵⁵ Ronald Hill, 25 June 2010, am, pp103-109;

¹⁵⁶ CCI1.3, p5, para. 4;

59. The applicant for registration then requires to submit a declaration to the Care Commission detailing that the Fire Safety Checklist has been completed and sent to the local Fire & Rescue Service for action¹⁵⁷ appears then to be.

60. This approach raised an issue during the evidence about the wording of the guidance *Fire Safety Guidance for 24 Hour Services* issued to Care Commission Staff from April 2007. On page 13 of that guidance there is a section entitled *Update – Changes to Fire Safety Issues*. Under reference to the legal principles that underpin part 3 of the Fire (Scotland) Act 2005, the guidance stated that “*with immediate effect Care Commission officers will not inspect or regulate fire safety matters*”¹⁵⁸.

61. Currently, Care Commission reports bear a statement worded (as at 9th March 2010) in the following terms¹⁵⁹: “*The Care Commission no longer reports on matters of fire safety as part of its regulatory function. Where significant fire safety issues become apparent, we will alert the relevant Fire and Rescue service to their existence in order that it may act as it considers appropriate. Care Service providers can find more information about their legal responsibilities in this area at: www.infoscotland.com/firelaw*”¹⁶⁰

62. Standing the evidence of Mr Hill and Mrs Roberts it is probably correct that the guidance overstates the position¹⁶¹. Mr Sweeney’s ready acknowledgement of the responsibilities of SFRS for enforcement of the range of Part III duties under the 2005 Act means that the wording may not be creating practical difficulties. However, if this guidance remains in force, I consider it would be appropriate for the wording to reflect, as accurately as possible, the approach actually taken by the Care Commission to its statutory responsibilities under the 2001 Act and 2002 Regulations.

63. The position following the enactment of Part III of the Fire (Scotland) Act 2005 involves a greater level of communication between the Care Commission and the Fire and Rescue Services. This is reflected in the Fire Safety Checklist that applicants for

¹⁵⁷ Ronald Hill, 25 June 2010, pp113-114;

¹⁵⁸ First Inventory for Care Commission, Item 3, page 13;

¹⁵⁹ Jacqueline Roberts, 2 June 2010, am, pp113-114;

¹⁶⁰ Third Inventory for Care Commission, Item 2;

¹⁶¹ Ronald Hill, 2 June 2010, am, pp120, 125-134;

registration require to complete and submit for consideration by Fire and Rescue Services¹⁶².

64. Part III of the Fire (Scotland) Act 2005 does not prescribe the level of frequency with which Care Homes should be inspected by Fire and Rescue Services. The approach remains one based on assessment of risk¹⁶³. SFRS visit all care homes once per year¹⁶⁴. While the practice of other Fire and Rescue Authorities was not the subject of examination during the Inquiry, the experience of the fire at Rosepark illustrates all too clearly the risks associated with fire within the care home environment. No doubt Fire and Rescue Services will wish to ensure that those risks have been fed into the risk profiling exercise contemplated by the Circular “Strategic Enforcement Guidance for Fire and Rescue Authorities”¹⁶⁵.

Against that factual background I conclude:

A. The evidence of Ronald Hill was that, “the Care Commission does not have responsibility for enforcement of fire safety but it does not ignore matters that come to its attention”. The evidence of Jacqueline Roberts was that “it would be unrealistic for Care Commission staff to visit a care service and not notice an obvious fire safety risk and not refer it to the enforcing authority, namely the Fire Rescue Authority”. There would appear to be inconsistency between the approach taken by these two senior officials in the Care Commission and the approach set out in “Fire Safety Guidance for 24 hour Services” issued by Scottish Ministers to Care Commission dated April 2007 and stated: “With immediate effect Care Commission officers will not inspect or regulate fire safety matters”.

B. It is clear from the evidence of Brian Sweeney that he acknowledges the responsibilities of SF&R for enforcement of the range of Part III duties under the 2005 Act.

¹⁶² Ronald Hill, 25 June 2010, pp113-114;

¹⁶³ Production 1942; Joanne MacDougall, 28 June 2010, am, pp45-48

¹⁶⁴ Brian Sweeney, 12 July 2010, pm, p65;

¹⁶⁵ Production 1942;

THEREFORE I recommend, if the guidance is to remain in force, it ought to be amended to reflect as accurately as possible, the approach taken by the Care Commission, as evidenced by Ronald Hill and Jacqueline Roberts, to their statutory responsibilities under the 2001 Act and 2002 Regulations.

OF8 Changes were made in the relevant Building Standards Regulations (which had already by the time of the fire moved on substantially as compared with the Building Standards Regulations which had applied at the time when Rosepark was built).

1. At the time when Rosepark was constructed, the relevant building standards were set out in the Building Standards (Scotland) Regulations 1981 as amended. These Regulations were replaced by the Building Standards (Scotland) Regulations 1990, which came into force on 1st April 1991. Unlike the previous Regulations, the 1990 Regulations were in the form of statements of requirement supported by Technical Standards. The relevant standards could be met by conformity with the Technical Standards or by any other means which could be shown to meet the relevant standards.

2. The Sixth Amendment to the 1990 Regulations, enacted in 2001, made material changes to the provisions in relation to fire precautions and protection of the means of escape. Of particular note were the following:-

2.1. Provision for sub-compartmentation, requiring every compartment in (inter alia) residential care homes to be divided into sub-compartments of not more than 750 square metres by walls with a 30 minute fire rating. Bedrooms in such a building were to be treated as if they were sub-compartments. This had the practical consequence that bedrooms in new residential care homes to which

these and subsequent Regulations applied required to be enclosed by walls and doors of a 30 minute fire rating¹⁶⁶.

2.2. Residential care homes were required to have a fire detection and alarm system¹⁶⁷.

As is usually the case with amendments to the Building Standards, these changes did not apply retrospectively to existing buildings.

3. Following the fire, the Building (Scotland) Regulations 2004¹⁶⁸ were enacted pursuant to the Building (Scotland) Act 2003. The 2004 Regulations came into force in May 2005 and represented a radical change from the previous legislation. A significant new provision was the requirement, applicable to residential care buildings and some other buildings, that the building be designed and constructed in such a way that, in the event of an outbreak of fire, fire and smoke will be inhibited from spreading through the building by the operation of an automatic life safety fire suppression system¹⁶⁹ - in effect residential care buildings, to which these Regulations applied, must be fitted with a sprinkler system. The Regulations were supported by Technical Handbooks which, though not mandatory, gave practical guidance on meeting the required standards¹⁷⁰. The Technical Handbook contained, in Annex 2A, Additional Guidance for Residential Care Buildings, setting out specific guidance in relation to care homes¹⁷¹.

Again these changes did not apply retrospectively to existing buildings.

¹⁶⁶ Thomas Sorbie, 8 June 2010, am, pp. 64-68, 82-83.

¹⁶⁷ Thomas Sorbie, 7 June 2010, am, pp. 39-40.

¹⁶⁸ Pro 1861.

¹⁶⁹ Para. 2.15.

¹⁷⁰ Thomas Sorbie, 8 June 2010, am, pp. 51-52, 56-57

¹⁷¹ Pro 1906, p. 205 ff; Thomas Sorbie, 8 June 2010, am, pp. 71-.

OF9 At Rosepark Care Home itself, a number of changes were made in light of the experience of the fire.

These may be noted as follows:

1. The inquiry heard evidence that since the fire, significant changes have been made at Rosepark itself.
2. Following the fire, the management of the Home immediately insisted that all fuse boxes be housed separately. There is still a distribution board in the general location where cupboard A2 was situated, but it is now in a separate cupboard of its own, which is kept locked¹⁷².
3. There continue to be storage cupboards in the general area of cupboard A2. Those cupboards are now kept locked¹⁷³. Aerosol cans and the like are kept separate from any potential source of heat¹⁷⁴.
4. Following the fire, swing free door closers were fitted to all bedroom doors. Staff are instructed that the default position is that bedroom doors should be closed at 11 pm, but staff are permitted to exercise a clinical judgment to leave a bedroom door (which will be fitted with a swing free closer so that, in the event of a fire alarm it w automatically close) open¹⁷⁵.
5. The fire alarm system which was in place at the time of the fire has been replaced with an analogue addressable system, which identifies the specific detector head which has been activated¹⁷⁶. Position of that specific detector is shown on the face of the panel.

¹⁷² Thomas Balmer, 10 May 2010, pm, pp. 41-42.

¹⁷³ Thomas Balmer, 10 May 2010, pm, p. 42.

¹⁷⁴ Thomas Balmer, 12 May 2010, pm, p. 14

¹⁷⁵ Thomas Balmer, 12 May 2010, pm, pp. 15-16.

¹⁷⁶ Thomas Balmer, 10 May 2010 pm, pp. 43-44.

6. The zoning has been altered, so that, in effect, each floor is a separate zone. However, since the particular detector head which has been activated is identified at the panel, this is of less significance¹⁷⁷.
7. The alarm system now sends a signal direct to the Fire Service when it is activated¹⁷⁸.
8. In addition, staff are instructed to phone the Fire Service immediately on the fire alarm sounding. There are notices to that effect. Staff are trained in that policy¹⁷⁹.
9. All members of staff are required to take a fire warden's course. The care managers are instructed to keep a matrix which allows ready identification of whether all staff are appropriately trained¹⁸⁰. New members of staff undergo a three day induction¹⁸¹. Bank staff are not allowed on duty without the equivalent orientation and familiarization¹⁸². Care Managers have an expanded job description and training¹⁸³.
10. There are monthly fire drills. These take place when the members of staff in question are on duty, including both dayshifts and nightshift. Training is organized by reference to a matrix which highlights if any staff have not attended the required number of fire drills¹⁸⁴.
11. Staff are given annual training by a specialist provider in the use of fire extinguishers. If the fire alarm sounds, two staff are dispatched immediately to the location of the detector which has activated. They each pick up a fire extinguisher en route¹⁸⁵.

¹⁷⁷ Thomas Balmer, 10 May 2010, pm, pp. 44-46.

¹⁷⁸ Thomas Balmer, 10 May 2010, pm, p. 46.

¹⁷⁹ Thomas Balmer, 12 May 2010, pm, pp. 3-4.

¹⁸⁰ Thomas Balmer, 12 May 2010, pm, pp. 9-10.

¹⁸¹ Thomas Balmer, 12 May 2010, pm, pp. 12-13.

¹⁸² Thomas Balmer, 12 May 2010, pm, p. 13.

¹⁸³ Thomas Balmer, 12 May 2010, pm, pp. 10-11.

¹⁸⁴ Thomas Balmer, 10 May 2010, pm, pp. 51-52; 12 May 2010, pm, pp. 8-9.

¹⁸⁵ Thomas Balmer, 12 May 2010, pm, pp. 7-8.

12. The electrical installation is inspected quarterly by an external contractor. Records are kept of this inspection both by the contractor and at the Home¹⁸⁶.

13. Rosepark is inspected annually by fire prevention officers of Strathclyde Fire and Rescue who will ensure the fire risk assessment is suitable and sufficient and that all necessary fire safety measures have been obtempered.

OF10 Future Developments in the Regulatory Field

1. The role of the Care Commission in inspecting private care homes will be assumed by an organisation called Social Care and Social Work Improvement Scotland (or “SCSWIS”). The only activity which will be removed from the Care Commission is the regulation of private and independent hospitals (including hospices)¹⁸⁷ which will be regulated by a different body¹⁸⁸. Otherwise the Care Commission’s functions will be transferred to the new body¹⁸⁹.

2. Care homes will come within the jurisdiction of SCSWIS. The regulatory functions will be very similar. One of the drivers behind the change is to bring the scrutiny of social care and social work services (a product of the 2001 Act) together in one body¹⁹⁰. The regulatory functions of SCSWIS will be the same as those of the Care Commission, based on an approach in which service providers undertake as effective as possible performance assessments of their services. There remains a very strong emphasis on working for improvement, rather than regulation and scrutiny. There has been removed from the legislation the statutory minimum frequency of inspection. The philosophy is that scrutiny should be much more risk based. Mrs Roberts likened this to part III of the 2005 Act which is based on integrated risk assessment. The Care Commission currently has a very detailed risk assessment in place, which has been validated by Glasgow Caledonian University. Mrs Roberts

¹⁸⁶ Thomas Balmer, 12 May 2010, pm, pp. 16-17.

¹⁸⁷ Jacqueline Roberts, 1 June 2010, am, pp26-

¹⁸⁸ Jacqueline Roberts, 2 June 2010, am, pp116-117;

¹⁸⁹ Jacqueline Roberts, 2 June 2010, am, p115;

¹⁹⁰ Jacqueline Roberts, 2 June 2010, am, p119;

anticipated that SCSWIS will have a very regular inspection regime for 24 hour services for vulnerable, older people¹⁹¹.

3. SCSWIS will be expected to be even more proportionate in its approach, and basing its judgment of activities even more on risk assessment than has been the case to date¹⁹².

4. The discussion over the wording of the guidance issued to staff of the Care Commission in 2007 (that “with immediate effect Care Commission officers will not inspect or regulate fire safety matters”) is illustrative of a more general imperative. Thus, in a field where more than one regulator operates, it is of the first importance that areas of responsibility are clearly identified, understood and agreed.

5. The Memorandum of Understanding between the Care Commission and the Fire and Rescue Authorities, which followed the fire at Rosepark, was a clear attempt to bring clarity to the relationship between the two parties, and to the areas of responsibility for fire safety which either party assumed. The need for clarity was, and is, self-evident.

6. I recommend:

(a) early attention to be given by Scottish Ministers to place on a formal footing the relationship between SCSWIS, the Fire and Rescue Authorities and the Health & Safety Executive. How they are to operate together in the care service sphere is not just desirable but essential.

(b) the same applies to the relationship between SCSWIS and other regulators operating outwith the sphere of fire safety.

¹⁹¹ Jacqueline Roberts, 2 June 2010, am, pp120-122;

¹⁹² Jacqueline Roberts, 2 June 2010, am, p123; Ronald Hill, 25 June 2010, am, p155;

OF11 Colin Todd produced a report (production 1779) setting out a number of suggestions and recommendations arising from his understanding of the circumstances of this Inquiry. He identified in that report matters which properly arise from the subject matter of this Inquiry and which it is appropriate that those charged with policy in relation to fire safety should consider.

I have set out the principal recommendations made by Colin Todd at Chapter 46(11) hereof. I have indicated the response of Scottish Ministers to a number of these recommendations on the basis of the cross-examination of Colin Todd by their counsel and their written submissions.

I do not consider it appropriate that I make recommendations as to what actions should be taken by Scottish Ministers in respect of each and every one of these recommendations. I recognise that, in taking any decision, they will be advised by a body of expert opinion. The recommendations were not the subject of detailed evidence from other experts. No doubt Scottish Ministers will carry out a consultation exercise with interested parties. I think it is sufficient that I commend the report and the evidence thereon to Scottish Ministers for their careful consideration.

C CONCLUSIONS

As I indicated in my introduction, a Fatal Accident Inquiry is an exercise in applying the wisdom of hindsight. The purpose of the conclusions drawn is to assist those legitimately interested in the circumstances of the death to look to the future in order that they, armed with hindsight, the evidence led at the Inquiry, and the Determination of the Inquiry, may be persuaded to take steps to prevent any recurrence of such a death in the future.

This Inquiry relates to a fire which took place on 31 January 2004. For reasons that do not concern me, this Inquiry did not commence until 16 November 2009. The evidence was not concluded until some 6½ years after the fire. It would be surprising, with a tragedy of this magnitude, if there had not been developments of a significant nature since the fire took place. I have set out these developments in detail at OF7 8, and 9.

I would wish to draw the following conclusions from the evidence and my findings:

1. **The Balmer Partnership (now Balmer Care Homes Limited)**

Substantial steps have been taken to eradicate the deficiencies identified in the findings which I have made under sections 6(1)(c) and (d) of the 1976 Act.

RP1 and 2 the electrical installation is inspected quarterly by an external contractor and records are kept by the contractor and at the home.

RP3.1 fuse boxes are contained in separate cupboards which are kept locked. There is still a distribution board in the general location where cupboard A2 was situated. It is in a separate cupboard of its own and kept locked. There was no evidence before the Inquiry as to whether the doors to cupboards containing distribution boards are fire resistant doors.

RP3.2 bedroom doors– following the fire swing free door closers were fitted to all bedroom doors. In the event of the fire alarm sounding the doors will close.

Staff are instructed that bedroom doors should be closed at 11.00 pm, but are permitted to exercise a clinical judgement to leave a bedroom door open in the knowledge that it will close on the fire alarm sounding.

RP3.3 fitting smoke seals to bedroom doors – there was no evidence before the Inquiry on this issue.

RP3.4 storage of combustible materials – aerosol cans and the like are kept separate from any potential source of heat. Storage cupboards are kept locked.

RP3.5 subdivision of corridor 4 - at the inspection of the home by the Inquiry on 27 April 2010 it was observed that this had received attention.

RP3.6 fire dampers – there was no specific evidence to the Inquiry that fire dampers had been fitted but standing the reaction of the Balmer Partnership to other issues which were clear from the outset, and the fact that the Home has been inspected by SF&R since 2006 in terms of the Fire (Scotland) Act 2005, I cannot imagine that this has not received attention.

RP4.1 information at the fire alarm – the fire alarm which was in place at the time of the fire has been replaced by an analogue addressable system, which identifies the specific detector head which has been activated. There is a plan at the panel, which was noted at the time of inspection by the Inquiry, which indicates exactly where the detector head which has been activated is situated.

RP4.2 training and drills – staff are instructed to phone the Fire Service immediately on the fire alarm sounding. There are notices to that effect. Staff are trained in that policy. Members of staff are required to take a fire warden's course. The care managers are instructed to keep a matrix which allows ready identification of whether all staff are appropriately trained. New members of staff undergo a three day induction. Bank staff are not allowed on duty without the equivalent orientation and familiarisation. There are monthly fire drills. They take place when members of staff in question are on duty, including both day shift and night shift. Training is organised by reference to a matrix which

highlights if any staff have not attended the required number of fire drills. Staff are given annual training by a specialist provider in the use of fire extinguishers. If the fire alarm sounds, two staff are despatched immediately to the location of the detector which is activated. Each pick up a fire extinguisher en-route.

RP4.3 this has been superseded by events.

RP5.1 early involvement of the Fire Brigade – the fire alarm system now sends a signal direct to the Fire Service when it is activated. In addition staff are instructed to phone the Fire Service immediately on the fire alarm sounding. There are notices to that effect which were observed at inspection by the Inquiry. Staff are trained in that policy.

RP5.2 the exhibition, on prominent display in Matron's office, of a laminated sheet specifying clearly what information should be given to the control operator by the member of staff who calls the Brigade. There was no evidence of this at the Inquiry and it was not noted at inspection. The matter will no doubt be given attention.

RP6 suitable and sufficient risk assessment – it is now fully appreciated that the provision of a suitable and sufficient risk assessment is for the duty holder and cannot be delegated. It is also appreciated that the obligation to take action based on the risk assessment is also for the duty holder. The risk assessments undertaken at the instance of management had been inspected by SF&R. No evidence was given in precise terms at the Inquiry about the terms of Rosepark's current fire risk assessment. I feel, however, that I can conclude that SF&R, the enforcing authority in terms of the Fire (Scotland) Act 2005, are satisfied with it. Their fire safety inspectors have inspected Rosepark annually since 2006 in terms of the 2005 Act.

DS1 maintenance of electrical installation – see RP1 and RP2. The Balmer Partnership will have learned that they cannot rely on the views of an unidentified tradesman to advise as to their approach to the IEE Regulations and other statutory responsibilities placed upon them (Chapter 12, paragraph 16).

DS2 inadequate training and drills – this has received attention - see comments at RP4.2.

DS3 system of management of fire safety – see comments on RP4.2. The Inquiry was advised that care managers have an expanded job description and training. Rosepark was effectively micromanaged by Thomas Balmer. He expected Matron to keep him informed without reservation about every aspect of the day to day management within the Home (Chapter 4, paragraph 11). The Balmer Partnership has taken on board the fact that there was no articulation of the roles and responsibilities of the Matron, the night shift staff nurse in charge, and members of staff who might require to engage in emergency fire fighting. It has accepted that roles and responsibilities were not clearly defined between management and staff, and in particular between management and Matron. The responsibilities of Matron and the staff nurse in charge, particularly on night shift, have been identified. Training in emergency fire fighting has received attention.

DS4 management of the construction process – the Balmer Partnership will have learned the advisability of employing a professional architect, a professional main contractor, or a professional clerk of works to oversee any development project. It will also have taken on board that contractual arrangements with parties whom it seeks to employ, such as architects and ventilation contractors in particular, should be committed to writing to prevent any misunderstanding of what is to be delivered in terms of the contract.

The evidence which was given about developments at Rosepark were confirmed when the Inquiry visited the Home on 27 April 2010. At inspection Rosepark presented as a well run and well appointed establishment. It was spotlessly clean. The furniture and fittings were of excellent quality. The individual residents' bedrooms were of a very high standard.

The Balmer family impressed as being wholly committed to the care of the elderly. When they gave evidence, the members of the family were clearly

devastated by the results of the fire. It is gratifying to be able to record that, on the basis of the evidence presented, the lessons of this tragedy have been taken on board by management, and the deficiencies identified in my findings substantially eradicated.

2. The Regulatory Function

This was entrusted to the Health Board on the first registration of Rosepark in 1992 until 1 April 2002. Its responsibilities were set out in Regulation 13(1) of the Nursing Homes Registration (Scotland) Regulations 1990 which provides:

“in respect of a nursing home which is registered under the Act, the facilities provided, precautions taken and arrangements made, all as described in this Regulation, shall be of a standard which the Health Board reasonably considers to be sufficient and suitable in the circumstances of the particular nursing home, which standard shall be maintained as long as the registration remains in force.”

Regulation 13(3) provides *inter alia*:

“the person registered shall ...

(a) take precautions –

(i) against the risk of fire

(ii) against the risk of accident

(b) make adequate arrangements for detecting, containing and extinguishing fire for the giving of warnings and for the evacuation of patients and staff in the event of fire”

There was accordingly placed on the Health Board the duty of determining whether the facilities provided, precautions taken and arrangements made in respect of fire safety were “suitable and sufficient”. Health Board inspectors were not trained in fire safety issues. The normal inspection team was an experienced nurse, a pharmaceutical expert to advise on medical issues, and an administrator to take notes and prepare a report. Put briefly, their inspectors’ role in practice was to check whether there could be said to be arrangements in place, without examining the suitability or sufficiency of them.

The approach of the Health Board, as I have set out in my findings, was defective and it was conducted on the basis of a fundamental misunderstanding of the role of SF&R in the inspection of nursing homes during that period. SF&R only carried out fire safety inspections at registration. The letter of

comfort for Rosepark, issued on 25 February 1999, made it clear that it related only to means of escape in case of fire, escape lighting, fire detection and alarm systems, fire fighting equipment and fire safety notices. The letter indicated:

“Prior to occupation of the premises a suitable fire routine should be formulated and effective steps taken to ensure that both staff and residents are familiar with the procedure to be followed in the event of fire.”

In fact SF&R had no involvement with Rosepark on fire safety issues between 1992 and 2002. Their visits were restricted to familiarisation visits from fire crews – not visits from fire safety inspectors.

When the Care Commission took over the regulation function on 1 April 2002 its statutory obligations were much less prescriptive. In terms of the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002 Regulation 19 the provider was directed to keep records of:

“the procedure to be followed in the event of a fire or other emergency; all fire drills and alarm tests which had been conducted, and any maintenance of equipment which is used in the provision of the service.”

There was no provision, similar to that applicable to the Health Board, that the Care Commission was required to consider the sufficiency and suitability of facilities provided, precautions taken and arrangements made in respect of fire safety issues. As I have set out in detail the approach of the Care Commission home reflected the tenor of that legislation. At the time of inspection prior to the fire by the Care Commission inspectors had no training in fire safety issues. Their role was restricted to checking records. I set out my findings at OF3.

However, the enforcing authority, as I set out at OF4.4.3 in respect of fire matters in terms of the Fire (Scotland) Act 2005 is now, as it ought to be, the Fire and Rescue Authority. Brian Sweeney, the Head of SF&R fully accepted this obligation rested on the Fire Authority. Each Care Home in Strathclyde now has an annual fire safety inspection. This includes a consideration of the premises fire risk assessment. This is a satisfactory and appropriate conclusion.

My only caveats are set out in my recommendations attached to OF5 and OF7.10.64.

3. Strathclyde Fire and Rescue

My findings AT RP5 and RP7 have already been taken on board by SF&R. Their response to the recommendations made by Sir Graham Meldrum are set out at OF7.3. Operational Technical Note A124 has been brought into effect by SF&R following these recommendations. In particular:

RP5.3 I understand Sir Graham Meldrum's recommendation that information in the turnout slip, such as access, be displayed in a more prominent manner, has been accepted. SF&R have an emergency response plan for premises such as Rosepark which, when promulgated, is available on the VMDS system. The emergency response plan contains information about the designated point of access and type of residence. There is now a predetermined attendance for three appliances.

RP5.4 There are now annual familiarisation visits by each watch in SF&R. All operational staff are familiar with the premises risk assessment.

RP7.1 in terms of OTN A124, in all instances when fire is suspected in responding to an alarm actuation, the alarm panel must be consulted to establish the zones involved in the building.

RP7.2 and 7.3 The specific information which should be obtained from staff on arrival is set out in OTN A124. There is not included in this list confirmation as to whether doors to bedroom are left open or closed and this should have attention.

RP7.4 the predetermined attendance is three appliances. If additional resources are required, a level 2 attendance would be sought which would involve a further three appliances.

In my opinion the terms of the guidance OTN 124 produced by SF&R in response to the recommendations of Sir Graham Meldrum substantially address the areas of concern raised by him arising out of his examination of the

operations of SF&R at Rosepark on 31 January 2004. SF&R have taken on board already the various findings which I have made at RP5 and RP7.

4. Completion certificate – role of architect and building control

I have found at OF4 that it is a fact relevant to the circumstances of these deaths that a Certificate of Completion was issued in circumstances where there had been a serious failure to comply with the Building Regulations in respect of the omission of fire dampers. I have made proposals at OF4 for the consideration of Scottish Ministers in connection with the role of the Architect and Building Control in the future.

5. Checking of documentation in respect of inspection and testing of an electrical installation and a ventilation system

My recommendations are set out at OF5. I also suggested that consideration be given to the smoke and fire integrity of compartments being the subject of expert certification at the time of registration.

6. The Position of Staff

One of the very important issues to have emerged from this Inquiry is the issue of individual staff responsibilities and training therefor. There was evidence from Thomas Balmer that he expected Matron to keep him informed, without reservation, about every aspect of the day to day management within the home. Thomas Balmer took a very hands on approach to management. It is clear that, in particular in the context of a residential care home, members of staff require the clearest specification of the duties which their post involves. They require training for these duties. There requires to be an audit that they are carrying out these duties satisfactorily. This applies to all employees, be they matron, nurse in charge of day shift or night shift, staff nurse, bank nurse, care assistant or auxiliary.

7. Future Developments in the Regulatory Field

This is canvassed at OF10. The Care Home regulatory responsibilities will shortly be taken over by Social Care and Social Work Improvement Scotland (SCSWIS). Scottish Ministers should facilitate an early opportunity to place on a formal footing the relationship among SCSWIS, the Fire and Rescue Authorities and the Health & Safety Executive. As I have said, how they operate together in the Care Service sphere is not only desirable, but essential.

8. The Recommendations of Colin Todd

They are referred to at OF11 and discussed at Chapter 46(11). Colin Todd, whose expertise in the field of fire safety has already been recognised by Scottish Ministers, gave evidence on his recommendations. He was subject to cross-examination on behalf of Scottish Ministers, who have also made certain written submissions. As I have already said, I do not think it is appropriate for me to make recommendation as to what action should be taken by Scottish Ministers in respect of each and every one of the recommendations. I recognise that, in taking any decision, they will be advised by a body of expert opinion. I did not have the benefit of hearing such evidence. Scottish Ministers will no doubt carry out a consultation exercise with interested parties. As I have said, I think it is sufficient that I commend Colin Todd's report and the evidence thereon to Scottish Ministers for its careful consideration.

9. Reassurance to Residents and Potential Residents of Care Homes

It is to be hoped that residents and potential residents of private care homes will be reassured by the very substantial developments which have taken place in respect of fire safety since the Rosepark fire. My findings may provide a useful checklist to those duty holders who are either employers or in control of residential care homes. In particular, in my view Scottish Ministers' publication "Practical Fire Safety Guidance for Care Homes", the latest version of which was published in December 2008, and is the subject of comment at OF7.4.7, provides the clearest guidance for those who seek to administer and regulate

care homes in Scotland. It represents a significant and appropriate response by Scottish Ministers to the issues which have been raised to date by Rosepark. Colin Todd, whose credentials as a fire safety expert are of the highest order, stated that the guidance contained in this document was “excellent”. He explained there had been a fantastic consultation exercise and Scottish Ministers had sought comments as widely as possible. It gave an excellent practical guidance in fire safety to management and regulators. Scottish Ministers will no doubt consider whether this document “Practical Fire Safety Guidance for Care Homes” requires further revision in view of the matters which have been highlighted in my Determination, and in particular the recommendations of Colin Todd.

FINALLY

14. I wish to express my appreciation to the Advocate Deputes, Counsel and Solicitors involved in the Inquiry for their very substantial assistance in the presentation of evidence and in the preparation of written submissions. The very high quality of the written submissions has allowed me to concentrate on the matters where there are issues between the interested parties. I have done my best to adjudicate thereon.

15. I would like to say to the relatives of those who so tragically lost their lives in the Rosepark fire that all of us involved in the Inquiry offer our sincerest sympathies. We express our admiration for the manner in which they conducted themselves through the long and difficult days when evidence was taken. This must have been particularly distressing to them. It is to be hoped that the evidence and this Determination provides answers to their questions about this tragedy. We wish them all well.

CHAPTER 3: ROSE PARK CARE HOME: LOCATION AND LAYOUT

Location

1. Rosepark Care Home is situated on a plot of land on the north side of New Edinburgh Road, Uddingston. The street layout in the vicinity of the Home is shown on Pro 1739¹⁹³.
2. Although the postal address of the home is 261 New Edinburgh Road, the main entrance is at the end of Rosepark Avenue.

Structure and layout: general

3. The Home is built on two floors. Because the site slopes generally from north to south, the main entrance at the Rosepark Avenue end of the Home is in fact on the upper floor. At that end of the building, the Home is a single-storey building (comprising only the upper floor), whereas at the New Edinburgh Road end, the building is two storeys in height¹⁹⁴.
4. There are two stairwells connecting the upper and lower floors: a central stairwell, which includes a liftshaft; and a stairwell at the south west corner of the building.

Layout: upper floor

5. The layout of the upper floor at the time of the fire is shown on Pro 1744.

Main entrance

6. The main entrance to the home is shown in photograph 887I. There were two sets of glass doors with a small porch area between them. The external doors might be left open during the day but the inner two doors were kept locked. There was a secure

¹⁹³ David Woodward, 17 November 2009, am, pp. 16-17.

¹⁹⁴ William Dickie, 12 January 2010, am, p. 165

entry system which operated using a keypad¹⁹⁵. An internal view of the doors (with the keypad on the door jamb) may be seen in Photograph 870 G1¹⁹⁶.

Foyer

7. Inside the entrance was a foyer area. This may be seen in Photograph 870 G1¹⁹⁷. The fire alarm panel was on the wall in the foyer at the location marked “IP” on Pro 1744¹⁹⁸. Opposite the panel was a cupboard (marked “M.E.I.” on Pro 1744) which contained electrical equipment including the main fuse board and a distribution board¹⁹⁹.

Offices

8. On the left side of the foyer, looking from the main entrance, were three offices: the first was used by the receptionist; the second was Mr and Mrs Balmer’s office; and the third was Matron’s office, which was used both by Matron and by the nurses²⁰⁰. The doors to these offices may be seen in Productions 870 G1 and H1²⁰¹.

Lounges

9. To the right of the foyer was the Rose Lounge. This was a lounge and dining area²⁰². Off the Rose Lounge was another lounge and dining area called the Gold Lounge, as well as the kitchen, and a conservatory²⁰³. There was also a small room which was used as a residents’ smoking room²⁰⁴.

¹⁹⁵ Allison Cumming, 18 November 2009, pm, pp. 82-83.

¹⁹⁶ David Woodward, 17 November 2009, am, pp. 39-40; Allison Cumming, 18 November 2009, pm, p. 85

¹⁹⁷ Allison Cumming, 18 November 2009, pm, p. 85.

¹⁹⁸ Allison Cumming, 19 November 2009, pm, pp. 40-41, 41-42.

¹⁹⁹ See further Chapter 11, para. 14.

²⁰⁰ Sadie Meaney, 18 February 2010, am, p. 69.

²⁰¹ Allison Cumming, 18 November 2009, pm, pp. 85-87.

²⁰² Allison Cumming, 18 November 2009, pm, pp. 83-84.

²⁰³ Allison Cumming, 18 November 2009, pm, p. 84.

²⁰⁴ Phyllis West, 23 November 2009, am, p. 78, 80-81.

Corridor

10. Straight ahead of the main entrance was a fire door, beyond which was a corridor leading to the south (New Edinburgh Road) end of the building. This was given the designation Corridor 1 during the investigation. About half way along that corridor, through another fire door, was the central stairwell and liftshaft, giving access to the lower floor. The stairwell was given the designation Corridor 2. Beyond the stairwell, through a further fire door, the corridor continued to the corner of the building and then to the far (south west) end of the building, where, through another fire door, there was a second stairwell leading to the lower floor. This corridor was divided into two sections by a fire door located about half way between the central stairwell and the corner of the building. The section of corridor between the central stairwell and the fire door was designated Corridor 3. The section of corridor beyond that fire door to the south-west stairwell was designated Corridor 4. The part of that corridor from the fire door to the corner was designated Corridor 4a; the part from the corner to the south-west stairwell was designated Corridor 4b. The cross corridor fire doors are further described in Chapter 14 below.

11. The corridors had suspended ceilings, with a void above, through which ran services, including ventilation ductwork. The ventilation system is further described in Chapter 8.

Corridor between the foyer and central stairwell (Corridor 1)

12. The corridor between the entrance foyer and the central stairwell contained five single bedrooms and a dayroom²⁰⁵.

Central stairwell (Corridor 2)

13. On the right hand side of the central stairwell, as one entered it from the direction of the foyer, were: (a) the staircase down to the lower floor; (b) the door to the lift; and (c) a cupboard used to store domestic supplies²⁰⁶.

²⁰⁵ Allison Cumming, 18 November 2009, pm, pp. 87-88, 91.

14. A view from the central stairwell through the fire door to the corridor beyond may be seen in Pro 887O²⁰⁷. This photograph shows the fire door between the central stairwell and the corridor beyond the stairwell.

Corridor between the central stairwell and the Corridor 3/4 fire door (Corridor 3)

15. The corridor between the central stairwell and the fire door contained six single bedrooms (rooms 4, 5, 6, 18, 19 and 20) and a bathroom²⁰⁸.

Corridor between fire door and far stairwell (Corridor 4)

16. The corridor beyond the fire door contained eleven bedrooms (rooms 7-17), three of which (rooms 9, 13 and 14) were double rooms. When these were all full there would be fourteen residents in that part of the building²⁰⁹.

17. Just before the corner, on the right hand side, were two cupboards adjacent to one another. The first – given the designation A2 during the investigation – contained an electrical distribution board and was used inter alia by the activities coordinator²¹⁰; the second was a linen cupboard. Cupboard A2 is further described in Chapter 13 of these submissions. The electrical equipment contained within the cupboard is further described in Chapter 11²¹¹.

Stairwell at south-west corner of the building

18. At the end of the corridor, beyond a fire door, was another stairwell to the lower floor.

²⁰⁶ Allison Cumming, 18 November 2009, pm, p. 89.

²⁰⁷ David Woodward, 17 November 2009, am, pp. 46-47.

²⁰⁸ Allison Cumming, 18 November 2009, pm, pp. 88-89, 91.

²⁰⁹ Allison Cumming, 18 November 2009, pm, p. 91.

²¹⁰ Yvonne Carlyle, 27 November 2009, am, pp. 17-18.

²¹¹ Chapter 11, paras. 14-30.

19. There was a landing at the top of the stair. There was a store cupboard at the far end of the landing. This landing was used inter alia to store the belongings of residents who had died²¹².

Layout: lower floor

20. The layout of the lower floor at the time of the fire is shown on Pro 1745.

Area to north of central stairwell

21. The area to the north of the central stairwell contained staff rooms and the laundry. On one side of the corridor was a staff kitchen, shown in Pro 881Q, and on the other side of the corridor a small staff smoking room²¹³.

The laundry

22. The laundry is shown in photographs in Pro 885. In the period before the fire there were three washing machines in the laundry. The washing machines are further described in Chapter 10.

Central stairwell

23. At the bottom of the central stairwell there was an external fire door²¹⁴.

Corridor between central stairwell and fire door

24. This corridor contained five single bedrooms²¹⁵.

²¹² Yvonne Carlyle, 27 November 2009, pm, pp. 7-8, 20.

²¹³ The smoking room is seen in Pro 881F: Sadie Meaney, 19 February 2010, pm, pp. 78-79.

²¹⁴ Allison Cumming, 18 November 2009, pm, p. 96.

²¹⁵ Allison Cumming, 18 November 2009, pm, p. 98.

Corridor between fire door and far stairwell

25. This corridor contained seven single bedrooms and three double bedrooms. This part of the corridor could accordingly accommodate 13 residents²¹⁶.

The roofspace

26. The roofspace was divided into eight areas separated by plasterboard barriers²¹⁷. A plan of the roofspace appears in the Chubb Report, Pro 1155 (p. 48)²¹⁸. Section 7 and 8 of the roofspace were above corridor 4. Section 8 was above corridor 4B from the south-west end of the building to above room 10 or 11²¹⁹. There was an access hatch from corridor 4B into section 8 of the roofspace²²⁰. Access holes had been cut in each of the partitions between the sections of the roofspace²²¹. These were meant to be kept covered by hatches, each of which was screwed into place. Access could be obtained to the roofspace through an access hatch in a WC off the foyer. The hatch was kept locked and access required a ladder²²².

External features

27. The external features of the building may be seen in external photographs. In particular:-

887C shows the south and west sides of the Care Home from New Edinburgh Road

887I shows the north side of the building including the main entrance²²³

887K shows the building from the patio outside the day room looking in the direction of New Edinburgh Road²²⁴.

²¹⁶ Allison Cumming, 18 November 2009, pm, p. 98.

²¹⁷ Stuart Mortimore, 11 March 2010, pm, pp. 90-91.

²¹⁸ Stuart Mortimore, 15 March 2010, am, pp. 3-4.

²¹⁹ Stuart Mortimore, 15 March 2010, am, pp. 4-6.

²²⁰ Stuart Mortimore, 11 March 2010, pm, pp. 39-43.

²²¹ Stuart Mortimore, 11 March 2010, pm, pp. 90-91; Thomas Balmer, 28 April 2010, pm, pp. 46-47.

²²² Joseph Clark, 20 January 2010, pm, pp. 58-68.

²²³ David Woodward, 17 November 2009, am, p. 31.

²²⁴ David Woodward, 17 November 2009, am, p. 34

887L shows the same part of the building from a slightly different angle. On the lower ground floor one can see the door at the bottom of the central stairwell²²⁵.

28. A lane runs down the east side of the building between Rosepark Avenue and New Edinburgh Road. This is shown in photographs 887A, 887B, 887C, 887G and 887H²²⁶. There were two gates across this lane: one at the New Edinburgh Road end and one towards the Rosepark Avenue end²²⁷.

29. The gate at the New Edinburgh Road end of the lane was always kept locked²²⁸. The gate towards the Rosepark Avenue end of the lane, according to Thomas Balmer, would normally be padlocked during the day and unlocked in the evening²²⁹. However Allison Cumming who worked as a nurse in Rosepark from May 2001 stated that the gates were kept locked. They were locked on the night of 31 January 2004. Between the building and New Edinburgh Road there was a car parking area capable of accommodating about 12 vehicles. This car parking area could have been accessed directly from New Edinburgh Road (assuming the gates were opened). To a casual observer, however, the impression gained might well have been that access to the car parking area would have been afforded by means of the entrance on New Edinburgh Road.

Terminology

30. The layout of the Home presents a problem of terminology. Either the upper or the lower floor could reasonably be described as the “Ground Floor”. On the plans prepared by Mr Dickie, it was the upper floor which is described as the “Ground Floor”, with the lower floor being designated the “Lower Ground Floor”²³⁰. The Fire Service re-designated these, for its purposes, as “First Floor” and “Ground Floor”²³¹.

²²⁵ David Woodward, 17 November 2009, am, pp. 34-37; Allison Cumming, 18 November 2009, pm, p. 96.

²²⁶ David Woodward, 17 November 2009, am, pp. 23-26, 29.

²²⁷ David Woodward, 17 November 2009, am, pp. 29-30.

²²⁸ Allison Cumming, 18 November 2009, pm, pp. 79-80; Thomas Balmer, 6 May 2010, pm, p. 2.

²²⁹ Thomas Balmer, 6 May 2010, pm, pp. 2-6.

²³⁰ William Dickie, 12 January 2010, pm, pp. 1-2.

²³¹ Thomas McNeilly, 22 January 2010, am, pp. 141-142.

31. Usage in the Home itself was inconsistent.

31.1. Allison Cumming, a staff nurse, stated that she would call the lower floor the ground floor²³².

31.2. Mhairi Sadiq, another staff nurse, gave evidence that, on being instructed (in the context of a fire drill) to go to the ground floor, she had started to go downstairs because she had got mixed up between the ground floor and the lower ground floor²³³.

31.3. Patricia Taylor, a sister, Isobel Queen, the staff nurse in charge and Irene Richmond, a care assistant on duty on the night of 30-31 January 2004, all used the terms “upstairs” and “downstairs”²³⁴.

31.4. Yvonne Carlyle, a care assistant, who was on duty on the night of 30-31 January 2004, likewise referred to “upstairs” and “downstairs”²³⁵. Tellingly, when she was referred to a police statement which referred to Mrs MacLachlan’s room (room 20) as being on the “ground floor”, she said, “I thought Isa was on the top floor ... I’m sure Isa’s room was on the top floor, it was upstairs”²³⁶. She did not recall other staff referring to the upper floor as “the ground floor”²³⁷.

²³² Allison Cumming, 18 November 2009, pm, p. 97; and see her use of the term “the ground floor” to refer to the lower floor on 19 November 2009, pm, p. 31, ll. 17-23.

²³³ Mhairi Sadiq, 29 July 2010, pm, pp. 41-44, 48.

²³⁴ Patricia Taylor, 25 November 2009, am, pp. 121-122; Irene Richmond, 1 December 2009, am, p. 44; Isobel Queen, 1 December 2009, pm, p. 79.

²³⁵ Yvonne Carlyle, 27 November 2009, am, p. 14.

²³⁶ Yvonne Carlyle, 27 November 2009, am, p. 38.

²³⁷ 27 November 2009, am, p. 39.

Note to Chapter 3

I have made certain alterations to paragraphs 29 on the basis of the submissions on behalf of SF&R. I did not consider the evidence as a whole indicated that there was in fact a problem of accessing substantial vehicles such as fire appliances via Rosepark Avenue. In particular none of the fire fighters who gave evidence about familiarisation visits indicated they had a problem obtaining access to the Care Home via Rosepark Avenue.

CHAPTER 4: MANAGEMENT AND STAFFING AT THE TIME OF THE FIRE

Management

1. At the time of the fire Rosepark Care Home was owned and managed by a partnership comprising Thomas Balmer, his wife Anne Balmer, and their son Alan Balmer²³⁸. The Balmers also managed a second nursing home, Croftbank, although this was owned by a limited company²³⁹. Rosepark Care Home had been in operation since 1992; Croftbank since 1996.

2. There was no clear-cut allocation of responsibilities amongst the three partners. In practice Mr Thomas Balmer tended to be involved with business and financial matters, and issues concerning the building, and Mrs Balmer for social and care aspects of running Rosepark²⁴⁰. Alan Balmer was based at Croftbank and undertook a variety of administrative tasks common to both Rosepark and Croftbank²⁴¹.

3. During the period before the fire, Thomas Balmer would spend up to 80% of his time at Rosepark. He was typically there from after 8 or 9 am until about 6 pm²⁴² at least during the week²⁴³. During the day was based in his office but would generally walk round the building twice a day. In the course of the day he would speak to family members and staff. He would have a daily dialogue with Matron²⁴⁴. He would visit the Home during the night two or three times a year²⁴⁵.

4. Before Croftbank opened, Mrs Balmer spent 10-12 hours a day at Rosepark, seven days a week. After Croftbank opened, she divided her time between the two

²³⁸ Thomas Balmer, 28 April 2010, am, pp. 3-4; Alan Balmer, 2 June 2010, am, pp. 129-130; Anne Balmer, 15 July 2010, am, p. 57.

²³⁹ Thomas Balmer, 28 April 2010, am, pp. 5-6.

²⁴⁰ Sadie Meaney, 18 February 2010, am, pp. 83-84; Thomas Balmer, 28 April 2010, am, pp. 4-5, 7, 30 April 2010, am, p. 90; Alan Balmer, 2 June 2010, am, p. 153; Anne Balmer, 15 July 2010, am, pp. 63-70.

²⁴¹ Alan Balmer, 2 June 2010, am, pp. 132-147.

²⁴² Thomas Balmer, 28 April 2010, am, pp. 6, 49, 29 April 2010, am, pp. 1-2; contrast his evidence at 7 May 2010, am, pp. 9-10.

²⁴³ Allison Cumming, 19 November 2009, am, p. 102.

²⁴⁴ Thomas Balmer, 29 April 2010, am, pp. 2-5.

²⁴⁵ Thomas Balmer, 29 April 2010, am, pp. 71-72.

homes. When she was at Rosepark she would spend about half her time in the office and about half of the time doing other things²⁴⁶. Along with the Matron, she would deal with potential residents and dealt with DSS funding²⁴⁷.

5. Alan Balmer was based principally at Croftbank²⁴⁸ and had no office at Rosepark²⁴⁹. He had first become involved in the care home sector in 1996 when Croftbank was opened²⁵⁰. From that date until the fire in January 2004 he was the administrator of Croftbank²⁵¹ and was the person responsible for health and safety (including fire safety) at that Home. He became a junior partner at Rosepark in 1997 or 1998²⁵². He had limited involvement on-site at Rosepark²⁵³ although he would be in charge while his parents were on holiday²⁵⁴. At other times, he would visit Rosepark irregularly a few times a week²⁵⁵. However he did have responsibilities in relation to Rosepark: he did all the payroll and purchasing for both homes²⁵⁶, dealt with the financial aspects of residents' contracts for both homes²⁵⁷, would generate documents which were common to both homes²⁵⁸ and prepared financial reports for both homes²⁵⁹. He had authority: (a) to instruct Mr Reid to undertake the risk assessment exercise undertaken in January 2003 for both homes; and (b) to enter into a contract with George Muir in January 2004 for the fire alarm system at Rosepark²⁶⁰.

6. There were no formal partnership meetings²⁶¹.

7. Thomas and Anne Balmer were the registered persons²⁶². The partnership employed the staff at Rosepark²⁶³.

²⁴⁶ Anne Balmer, 15 July 2010, am, pp. 72-73

²⁴⁷ Sadie Meaney, 18 February 2010, am, pp. 83-84.

²⁴⁸ Thomas Balmer, 28 April 2010, am, p. 7.

²⁴⁹ Alan Balmer, 2 June 2010, am, p. 143

²⁵⁰ Alan Balmer, 2 June 2010, am, pp. 128-130

²⁵¹ Alan Balmer, 2 June 2010, am, p. 132-133.

²⁵² Alan Balmer, 2 June 2010, am, pp. 138-140.

²⁵³ Sadie Meaney, 18 February 2010, am, p. 83.

²⁵⁴ Alan Balmer 4 June 2010, am, pp. 33-35, 62-64

²⁵⁵ Alan Balmer, 2 June 2010, am, pp. 142-3.

²⁵⁶ Alan Balmer, 2 June 2010, am, pp. 134.

²⁵⁷ Alan Balmer, 2 June 2010, am, pp. 148-149

²⁵⁸ Alan Balmer, 2 June 2010, am, pp. 141-142.

²⁵⁹ Alan Balmer, 2 June 2010, am, p. 145-7

²⁶⁰ Alan Balmer, 3 June 2010, am, pp. 121-123

²⁶¹ Alan Balmer, 2 June 2010, am, pp. 151-152; Anne Balmer, 15 July 2010, am, pp. 67-68, 78-71.

²⁶² Thomas Balmer, 7 May 2010, am, p. 13.

²⁶³ Thomas Balmer, 7 May 2010, am, p. 13.

Matron/Care Manager

8. The Care Manager of the Home at the time of the fire was Sadie Meaney. She was an extremely experienced nurse, who had devoted her career to the care of the elderly. She qualified in 1966. She had over the years been employed as Sister, Assistant Manager or Assistant Matron in various care settings, both in the United Kingdom and elsewhere. She joined the staff at Rosepark as a Staff Nurse in April 1998 and became Matron in December 1998²⁶⁴. In 2002 or thereabouts her job was renamed “Care Manager”²⁶⁵.

9. As Matron and Care Manager, Ms Meaney was the senior nurse responsible for the management and delivery of nursing services²⁶⁶. She was responsible to Mr and Mrs Balmer²⁶⁷. They had no professional knowledge in nursing care and depended on Matron for that²⁶⁸. She had to liaise with the owners in the interests of the residents to make sure that they had their needs met²⁶⁹. She had responsibilities in relation to training²⁷⁰.

10. Matron typically worked 9 am to 5.30 pm. During a working day she would sometimes be in her office but also out around the Home dealing with matters which arose around the Home and liaising with visiting therapists, doctors and so on²⁷¹. From time to time she had visited the Home in the evening, up to about 11 pm²⁷². She was rarely in the building during the nightshift²⁷³. If she required to communicate something to the staff on the nightshift, she would write in the communications book or, exceptionally, hold a meeting during the day to which night staff were expected to attend²⁷⁴. Nightshift staff had very little direct contact with her²⁷⁵.

²⁶⁴ Sadie Meaney, 18 February 2010, am, pp. 59-

²⁶⁵ Sadie Meaney, 19 February 2010, am, p. 46-47.

²⁶⁶ Pro 404, p. 19; Sadie Meaney, 18 February 2010, am, pp. 73-74.

²⁶⁷ Sadie Meaney, 18 February 2010, am, p. 87.

²⁶⁸ Sadie Meaney, 18 February 2010, am, p. 88.

²⁶⁹ Sadie Meaney, 18 February 2010, am, pp. 72-73.

²⁷⁰ Sadie Meaney, 18 February 2010, am, pp. 135-136.

²⁷¹ Phyllis West, 23 November 2009, am, pp. 56-57; Sadie Meaney, 18 February 2010, am, p. 70.

²⁷² Sadie Meaney, 18 February 2010, am, pp. 122-123.

²⁷³ Eleanor Ward, 24 November 2009, pm, pp. 4-5; Rosemary Buckley, 25 November 2009, pm, pp. 63-64.

²⁷⁴ Eleanor Ward, 24 November 2009, pm, pp. 7-16.

11. The relationship between Matron and management who were present in the Home on a day to day basis was a sensitive one. The Balmers expected Matron to keep them informed without reservation about every aspect of day to day management within the Home²⁷⁶. This she did. The Balmers would have been aware that Matron was not involved in training in fire safety or fire related health and safety issues. Her involvement was restricted to induction training. She did not attend any management meetings to discuss fire safety issues. The role of Matron is fully dealt with in Chapters 18 and 19.

Staff

12. The staff of the home comprised nursing staff, care staff, domestics, kitchen staff, an activities coordinator and the maintenance man²⁷⁷. In all, the Home employed over 50 staff²⁷⁸.

13. Certain of the Home's documentation referred to "Heads of Department". The "departments" were: catering, domestics, nursing, maintenance and the office²⁷⁹. The last two effectively consisted of one employee each²⁸⁰.

14. The Catering and Domestic Heads of Department were answerable to Mr and Mrs Balmer, although in practice they would go to Matron. Joe Clark, the Maintenance man took his instructions from Thomas Balmer²⁸¹.

Nursing Staff

15. The role of the nursing staff was to take charge of the Home and look after the clients and nursing duties. They supervised other nurses and carers and whatever staff

²⁷⁵ Isobel Queen, 1 December 2009, pm, p. 92; 2 December 2009, am, pp. 5-6.

²⁷⁶ Thomas Balmer, 28 April 2010, am, pp. 50-54.

²⁷⁷ Allison Cumming, 19 November 2009, am, pp. 2-3.

²⁷⁸ Thomas Balmer, 5 May 2010, pm, pp. 2-3.

²⁷⁹ Thomas Balmer, 4 May 2010, am, p. 80.

²⁸⁰ Thomas Balmer, 4 May 2010, am, p. 80.

²⁸¹ Sadie Meaney, 18 February 2010, am, pp. 85-87.

were in the building at the time. There was a hierarchy of nursing staff under Matron²⁸².

Sisters

16. There were three Sisters: Eileen McCarthy, Patricia Taylor, and Eleanor Ward (who was on the nightshift)²⁸³. Eleanor Ward worked part-time²⁸⁴.

Staff Nurses

17. Staff Nurses (further divided into Senior Staff Nurses and Staff Nurses) had a qualification either as a registered general nurse or as a registered mental nurse²⁸⁵. The staff nurses on the day and back shift at Rosepark Care Home at the time of the fire were Allison Cumming, Phyllis West, Mhairi Sadiq, of whom Allison Cumming was full time and Phyllis West and Mhairi Sadiq were part-time²⁸⁶. The staff nurses who worked on the nightshift were Isobel Queen, Flora Davidson, Catherine Melia, Mary Rodgers and Jane Norton²⁸⁷.

18. The job description for staff nurses stated that they were responsible to matron and senior management, and were in charge of enrolled nurses, auxiliary nurses and domestics²⁸⁸. “Senior management” in this context was understood by staff nurses to mean Mr and Mrs Balmer²⁸⁹.

Enrolled Nurses

19. Enrolled nurses had only two years training (whereas the RGNs and RMNs had three)²⁹⁰. The practical role of each of these members of nursing staff was not significantly different although the grade of the member of staff determined who was

²⁸² Allison Cumming, 19 November 2009, am, pp. 4-5.

²⁸³ Allison Cumming, 19 November 2009, am, p. 16.

²⁸⁴ Eleanor Ward, 24 November 2009, am, p. 158.

²⁸⁵ Allison Cumming, 19 November 2009, am, pp. 17-18.

²⁸⁶ Phyllis West, 23 November 2009, am, p. 41.

²⁸⁷ Phyllis West, 23 November 2009, am, pp. 45-48; Eleanor Ward, 24 November 2009, am, p. 165.

²⁸⁸ Allison Cumming, 19 November 2009, am, p. 16.

²⁸⁹ Allison Cumming, 19 November 2009, am, p. 19.

²⁹⁰ Allison Cumming, 19 November 2009, am, p. 18.

in charge²⁹¹. Linda McLoughlin, Lorraine Edwardson and Louise Smith were enrolled nurses on the day and back shifts²⁹². Enrolled nurses on the nightshift were Rosemary Buckley, Elizabeth Hetherington and Margaret Holmes, who were all part-time²⁹³.

Part time nursing staff

20. Rosepark employed nurses both on a full time and on a part time basis. All of the nightshift staff were part-time, working two or three days a week²⁹⁴.

Bank staff

21. A bank nurse is a nurse who is not employed full time or part time at the Home but is a nurse who might by arrangement come in on an ad hoc basis to work a particular shift. From time to time Rosepark employed bank nurses particularly on the night shift²⁹⁵.

The concept of “nurse in charge”

22. The nurse in charge had overall responsibility for the Home if Matron was not there²⁹⁶. The senior nurse present would be the nurse in charge²⁹⁷. If there were two nurses of equivalent grade on duty and one was full time and the other part time, the full time nurse would be the nurse in charge²⁹⁸. A bank nurse might on occasion be the nurse in charge²⁹⁹.

Care Staff

²⁹¹ Allison Cumming, 19 November 2009, am, pp. 6-7.

²⁹² Phyllis West, 23 November 2009, am, pp. 41-44.

²⁹³ Phyllis West, 23 November 2009, am, pp. 48-49; Eleanor Ward, 24 November 2009, p. 165.

²⁹⁴ Phyllis West, 23 November 2009, am, pp. 45-49; Eleanor Ward, 24 November 2009, am, pp. 158, 166-167

²⁹⁵ Allison Cumming, 19 November 2009, am, p. 12; Sadie Meaney, 19 February 2010, am, p. 53.

²⁹⁶ Allison Cumming, 19 November 2009, am, pp. 7-8.

²⁹⁷ Allison Cumming, 19 November 2009, am, pp. 6-8.

²⁹⁸ Allison Cumming, 19 November 2009, am, pp. 15-16.

²⁹⁹ Alexis Coster, 24 November 2009, am, pp. 80-81; Catherine Melia, 11 February 2010, pm, p. 59; Sadie Meaney, 22 February 2010, am, p. 89.

23. Carers were employed to assist the nurses with the general care of the clients³⁰⁰. There were certain care staff who routinely worked nightshift and other care staff who would work early and back shifts³⁰¹. Nightshift care staff were Yvonne Carlyle, Irene Richmond, Collette Wallace, Margaret Main, Allison Hughes, Margaret Higgins and Christine McLucas. They were all part-time³⁰².

Domestic staff

24. Domestics were employed to clean the building and the rooms³⁰³.

Kitchen staff

25. Kitchen staff prepared the food and cleaned the dining area³⁰⁴.

Activities Coordinator

26. The activities coordinator was Margaret McCondichie³⁰⁵.

Maintenance man

27. The Home employed a maintenance man and driver, Joe Clark³⁰⁶. He had been employed since 1993³⁰⁷. He inter alia undertook maintenance duties about the home³⁰⁸.

28. Mr Clark had a number of duties in connection with fire safety. He undertook the weekly fire alarm test. He also had a role in relation to fire drills, in that he selected an area of the home, triggered a smoke detector in that area, and would watch

³⁰⁰ Allison Cumming, 19 November 2009, am, p. 3.

³⁰¹ Phyllis West, 23 November 2009, am, p. 49.

³⁰² Eleanor Ward, 24 November 2009, am, p. 165-167.

³⁰³ Allison Cumming, 19 November 2009, am, p. 3.

³⁰⁴ Allison Cumming, 19 November 2009, am, p. 3.

³⁰⁵ Allison Cumming, 19 November 2009, am, p. 4.

³⁰⁶ Allison Cumming, 19 November 2009, am, p. 4.

³⁰⁷ Joseph Clark, 20 January 2010, am, pp. 61-64.

³⁰⁸ Allison Cumming, 19 November 2009, am, p. 4.

to see how the staff performed³⁰⁹. There was evidence that he had also led discussions following fire drills³¹⁰. Staff looked to him for advice in relation to responding to fire alarms³¹¹. Mr Clark had, however, no expertise in matters of fire safety³¹².

Shift patterns

29. The nursing and care staff at Rosepark worked in shifts. There were two dayshifts and a nightshift. The early dayshift was 7 am to 2.30 pm for qualified staff and 7 am to 2 pm for carers³¹³. The late dayshift or backshift was 2 pm to 9.30 pm for trained staff and 2 pm to 9 pm for carers³¹⁴. The nightshift for carers was 8.30 pm to 7 am³¹⁵. In addition, two carers worked 5 pm to 10 pm³¹⁶.

30. On the early dayshift there would typically be two nurses (apart from Matron), six or seven carers and four or five domestics. On the backshift there would be two nursing staff (apart from Matron), three or four carers and a domestic³¹⁷. An additional one or two carers came in between 5 pm and 10 pm (formerly 9 pm) to help put residents to bed or to get them ready for bed and to do laundry³¹⁸.

31. On nightshift there were two members of the nursing staff (who might be any combination of sister, senior staff nurse, staff nurse and enrolled nurse) and two carers³¹⁹.

32. When it came to night staff one was essentially dealing with a different group of people – in terms of both nursing and care staff – from day staff. So, for example,

³⁰⁹ Joseph Clark, 20 January 2010, pm, pp. 74-76.

³¹⁰ Thomas Balmer, 5 May 2010, pm, p. 37; although see Sadie Meaney, 18 February 2010, pm, pp. 27-28.

³¹¹ This is exemplified by the actions of the staff in connection with a fire alarm which occurred on the nightshift in December 2003, when staff telephoned Mr Clark for guidance: see Chapter 23.

³¹² Thomas Balmer, 5 May 2010, pm, p. 37.

³¹³ Allison Cumming, 19 November 2009, am, p. 8.

³¹⁴ Allison Cumming, 19 November 2009, am, p. 8.

³¹⁵ Yvonne Carlyle, 27 November 2009, am, p. 5.

³¹⁶ Yvonne Carlyle, 27 November 2009, am, pp. 42-43.

³¹⁷ Allison Cumming, 19 November 2009, am, pp. 13-15, 29-30.

³¹⁸ Allison Cumming, 19 November 2009, am, p. 30; Yvonne Carlyle, 27 November 2009, am, pp. 42-43; Tracy Farrer

³¹⁹ Allison Cumming, 19 November 2009, am, pp. 35-36.

Phyllis West, who had worked with all the dayshift staff at one time or another, had never worked with any of the nightshift staff³²⁰.

33. Joe Clark and Margaret McCondichie did not work shifts. They worked different hours from the other staff, but would have been around during the day³²¹. Kitchen staff would be there to prepare breakfast, lunch and dinner³²². During the day other people – for example, relatives and friends of residents – might come into the Home³²³.

34. A key difference between dayshift and nightshift was, accordingly, that during the night there were only four staff on duty. During the day, not only were there significantly more staff (including Matron and Mr and Mrs Balmer) about, but one could also expect other people to be present in the building.

Note to Chapter 4

In respect of paragraph 28 it was submitted on behalf of Joe Clark, the maintenance man, that he was not present at discussions after fire drills and any discussion was among the nurses. This was contrary to the evidence of Thomas Balmer. I accepted the evidence that Joe Clark, in respect of fire drills, selected an area of the home, triggered a smoke detector in that area, and watched to see how staff performed. In these circumstances I find it wholly improbable that he would not have been involved in any discussion on completion of the fire drill. I am not prepared to make any alteration to Chapter 4 in respect of Joe Clark.

I have made alterations to paragraph 11 on the basis of submissions made on behalf of the Matron. I would also point out that the role of Matron is fully dealt with in Chapter 18.

³²⁰ Phyllis West, 23 November 2009, am, pp. 49-52.

³²¹ Allison Cumming, 19 November 2009, am, p. 31.

³²² Allison Cumming, 19 November 2009, am, p. 35.

³²³ Allison Cumming, 19 November 2009, am, pp. 34-35.

CHAPTER 5: RESIDENTS ON 30-31 JANUARY 2004

Introduction

1. At the time of the fire Rosepark Care Home was registered to accommodate 43 residents. If the home had been full on 30-31 January 2004, it would have contained 18 residents downstairs and 25 upstairs³²⁴.

2. The residents of care homes are people who, for one reason or another, are not capable of living independently. They typically have deficiencies in their physical or mental capacity. Typically they have health problems – and, in the context of a home such as Rosepark, the health problems associated with age. At any given time, in Rosepark, at the time before the fire, one would have expected to find at Rosepark residents who had severe mobility problems and residents who had relatively severe dementia³²⁵.

3. Over time, the level of dependency of residents in care homes had changed. Ms Meaney made the point that when she started in her career in 1966 most homes had been residential, with residents who were relatively independent, but that over time the residents of care homes had come to require increasing levels of nursing care³²⁶. Rosepark provided nursing care. However even within that context, over the life of the Home, the level of dependence of the residents had increased³²⁷.

Residents on 30-31 January 2004

4. On the night of 30-31 January 2004 the rooms in corridors 3 and 4 on the upper floor were occupied as follows³²⁸:-

³²⁴ Allison Cumming, 18 November 2009, pm, p. 98.

³²⁵ Phyllis West, 23 November 2009, am, pp. 13-15

³²⁶ Sadie Meaney, 18 February 2010, am, pp. 66-68.

³²⁷ Sadie Meaney, 18 February 2010, am, p. 68, 19 February 2010, am, pp. 96-102, 22 February 2010, am, pp. 129-130.

³²⁸ Pro 318; Isobel Queen, 1 December 2009, pm, pp. 88-90.

Corridor 3

- 4 – Mary Dick (survived)
- 5 – Jean Patterson (survived)
- 6 – Richard Russell (survived)
- 18 – Margaret Gow (rescued from scene; died in hospital)
- 19 – Jessie Hadcroft (survived)
- 20 – Isabella MacLachlan (rescued from scene; died in hospital)

Corridor 4

- 7 – empty
- 8 – empty
- 9 – Julia McRoberts (deceased); Annie (Nan) Stirrat (deceased)
- 10 – Robina Burns (rescued from scene; died in hospital)
- 11 – Isabella MacLeod (rescued from scene; died in hospital)
- 12 – Margaret Lappin (deceased)
- 13 – Mary McKenner (deceased); Ellen (Helen) Milne (deceased)
- 14 – Helen (Ella) Crawford (deceased); Annie Thomson (deceased)
- 15 – Margaret Dorothy (Dora) McWee (deceased)
- 16 – Thomas Cook (deceased)
- 17 – Agnes Dennison (deceased)

5. There were only 12 residents in Corridor 4 because there had been some recent deaths: there was no policy of restricting the number of residents in that area to fewer than 14³²⁹.

6. The residents in these corridors were all elderly. They were all, by reason of mental or physical condition, or both, dependent for the ordinary activities of daily

³²⁹ Sadie Meaney, 22 February 2010, am, pp. 23-24.

life on the staff to at least a degree, and a number of them were highly or totally dependent³³⁰.

7. As a group, the residents in Corridor 4 were a particularly heavily dependent group, even by comparison with other groups of residents who would be in the Home from time to time. As a group, they were more heavily dependent than the other residents who were living in the Home at the time of the fire³³¹.

Corridor 3

8. Mary Dick (room 4) was mobile with a stick but had dementia and was very confused³³².

9. Jean Patterson (room 5) was 62 years old. She had arrived at Rosepark on the morning of 30 January 2004 from Strathclyde Hospital. She had a complex medical history, including arthritis, hypertension, depression, gastric ulcers, schizophrenia and hypothyroidism³³³.

10. Margaret Gow (room 18) was 84 years old. She had moved into Rosepark in May 2002. She was fairly mobile with a zimmer or rollator and could communicate well. She was assessed as low dependency³³⁴.

11. Jessie Hadcroft (room 19) had dementia. She could become aggressive and difficult and two staff were required to help her out of bed and walk with her³³⁵.

12. Isabella MacLachlan (room 20) was 93 years old. She had moved into Rosepark in June 2003 when she was diagnosed with Alzheimer's disease following a fall. She was registered blind. She suffered from osteoporosis and was very stooped. By the time of her death she was very confused and was very dependent on the staff for her

³³⁰ See paras. 8-25 below.

³³¹ Allison Cumming, 19 November 2009, pm, pp. 10-11. Yvonne Carlyle, 27 November 2009, am, pp. 4-5.

³³² Allison Cumming, 19 November 2009, am, pp. 123-124.

³³³ Patricia Taylor, 25 November 2009, am, pp. 106-108

³³⁴ Allison Cumming, 19 November 2009, am, pp. 107-109.

³³⁵ Allison Cumming, 19 November 2009, am, pp. 125-126.

general care³³⁶. She required constant staff supervision to ensure her personal safety³³⁷. Although she was able to walk independently she required supervision to make sure that she did not fall or to into places where she might be harmed³³⁸. She could have got out of bed herself, although in terms of safe moving and handling, one nurse would require to be present to assist her³³⁹. She was assessed as being highly dependent³⁴⁰.

13. Richard Russell (room 6) was immobile although he could weight-bear. To transfer him in and out of bed required two members of staff using a stand aid³⁴¹.

Corridor 4

14. Robina Burns (room 10) was 89 years old. She had moved to Rosepark in March 2002. She suffered from angina and was unsteady on her feet. She could mobilize for short distances using a zimmer in the Home or a walking stick outside. If her daughter was taking her out, she would use a wheelchair, and she sometimes needed a wheelchair to get to the dayroom. She could get in and out of bed independently³⁴².

15. Thomas Cook (room 16) was 95 years old. He had moved into Rosepark in November 2003. He was registered blind, had angina and pernicious anaemia and was doubly incontinent. His mobility was slow³⁴³. He could get in and out of bed and walk with a stick, although a member of staff would be required to assist him because he was blind³⁴⁴. He preferred to sleep in his day clothes³⁴⁵.

³³⁶ Isobel Caskie, 16 November 2009, pm, pp. 31-35.

³³⁷ Allison Cumming, 19 November 2009, am, pp. 106-107.

³³⁸ Allison Cumming, 19 November 2009, am, pp. 104, 106.

³³⁹ Allison Cumming, 19 November 2009, am, p. 105.

³⁴⁰ Allison Cumming, 19 November 2009, am, pp. 105-107.

³⁴¹ Allison Cumming, 19 November 2009, am, pp. 124-125.

³⁴² Agnes Crawford, 16 November 2009, pm, pp. 54-56, 59; Allison Cumming, 19 November 2009, am, pp. 121-3.

³⁴³ Gail Stewart, 16 November 2009, pm pp., 13, 22-23; Allison Cumming, 19 November 2009, am, pp. 109-111.

³⁴⁴ Allison Cumming, 19 November 2009, am, pp. 111-112.

³⁴⁵ Allison Cumming, 19 November 2009, am, p. 111.

16. Helen (Ella) Crawford (room 14) was 85 years old. She had moved into Rosepark Care Home on 4 January 2004 having previously been in another Care Home. Although she could walk unaided without a stick, she suffered from Alzheimer's disease and was very confused, and accordingly required supervision for her own safety³⁴⁶. Because of her mental condition she was assessed as requiring one member of staff to assist her in transferring in and out of bed and in walking³⁴⁷.

17. Agnes Dennison (room 17) was 95 years old. She had moved into Rosepark on 25 January 2004 following an operation to deal with a broken femur. She was mentally competent but dependent in relation to her mobility. She needed two staff to help her walk with a zimmer. She required two staff to assist her to stand and to get in and out of bed. She was prone to falling³⁴⁸.

18. Margaret Lappin (room 12) was 83 years old. She had moved into Rosepark Care Home in June 2003 from another nursing home. She was mentally alert, but had severe mobility difficulties, since she was a double amputee. She had an electric wheelchair and was dependent on staff to move her into and out of the chair. She could not get in or out of bed without assistance³⁴⁹. She needed two staff to move her in and out of bed and they would do this using a lifting belt³⁵⁰. Mrs Lappin was assessed as being highly dependent by reason of her mobility difficulties³⁵¹.

19. Mary McKenner (room 9) was 82 years old. She had moved into Rosepark in October 1998. She suffered from severe dementia. She was immobile and was unable to communicate her needs. She was disorientated from time, place and person and could not complete any activities of daily living without assistance and prompting of staff. It would take two or three staff using a stand aid or a lifting belt to move her safely from her bed into a wheelchair or onto the toilet or from chair to chair³⁵². She was assessed as totally dependent³⁵³.

³⁴⁶ Jannette Bulloch, 16 November 2009, am, pp. 31-33; Allison Cumming, 19 November 2009, am, pp. 115-116.

³⁴⁷ Allison Cumming, 19 November 2009, am, pp. 116-117.

³⁴⁸ Phyllis West, 23 November 2009, am, pp. 32-40.

³⁴⁹ John Lappin, 16 November 2009, am, pp. 41-42.

³⁵⁰ Allison Cumming, 19 November 2009, am, pp. 129-132.

³⁵¹ Allison Cumming, 19 November 2009, pm, pp. 4-5.

³⁵² Allison Cumming, 19 November 2009, am, pp. 58-66, 75, 81-82.

³⁵³ Allison Cumming, 19 November 2009, am, p. 88.

20. Isabella MacLeod (room 11) was 75 years old. She had moved into Rosepark Care Home on 3 December 2002. Although she had dementia she could communicate clearly. She could walk with two sticks and could get in and out of bed independently though she also sometimes used a wheelchair and she needed supervision with her personal hygiene and things like that. She was assessed as being independent³⁵⁴

21. Julia McRoberts (room 9) was 90 years old³⁵⁵. She had moved to Rosepark in June 2000³⁵⁶. Shortly before the fire she had been moved to room 9 on a temporary basis because she had a leg ulcer³⁵⁷. Her mobility was poor. She weighed 120 kg and required the assistance of two staff to transfer in and out of bed. Although she could walk short distances with a zimmer, she tended to use a wheelchair more than a zimmer³⁵⁸. By reason of her mobility problems, she was assessed as highly dependent³⁵⁹.

22. Margaret Dorothy (Dora) McWee (room 15) was 98 years old. She had moved into Rosepark Care Home in December 2002 following a stroke and surgery to correct a fractured femur³⁶⁰. She suffered from transient ischaemic attacks. She had limited mobility: although she could walk a little with a zimmer, she was usually moved around in a wheelchair. She had very poor eyesight. She suffered from Charles Bonnet Syndrome, a condition which resulted in her seeing the room full of colours, patterns and images, and which was very distressing³⁶¹. She required the assistance of a member of staff to get in and out of bed and was assessed as highly dependent³⁶².

23. Ellen (Helen) Milne (room 13) was 81 years old. She had moved into Rosepark in 2002. She suffered from multiple health problems, including dementia. In

³⁵⁴ Janette Bowman, 16 November 2009, am, pp. 51-52, 54; Allison Cumming, 19 November 2009, am, pp. 132-133, pm, pp. 2-3.

³⁵⁵ Patrick McGuire, 17 November 2009, am, p. 3.

³⁵⁶ Patrick McGuire, 17 November 2009, am, p. 5.

³⁵⁷ Patrick McGuire, 17 November 2009, am, pp. 8-9.

³⁵⁸ Patrick McGuire, 17 November 2009, am, p. 9; Allison Cumming, 19 November 2009, am, pp. 92-94.

³⁵⁹ Allison Cumming, 19 November 2009, am, pp. 94-95.

³⁶⁰ Agnes McWee, 16 November 2009, am, pp. 68-69.

³⁶¹ Agnes McWee, 16 November 2009, am, pp. 73-75; Allison Cumming, 19 November 2009, am, pp. 127-128,

³⁶² Allison Cumming, 19 November 2009, am, pp. 128-129.

December 2003, her left leg had been amputated below the knee³⁶³. She had been unable to mobilize before the operation (requiring two members of staff to move her in and out of bed) and was even less mobile thereafter³⁶⁴. She had been catheterized on the backshift on 30 January 2004³⁶⁵.

24. Annie (Nan) Stirrat (room 9) had lived at Rosepark since 1995. She suffered from dementia. By the time of her death she was very frail, was completely immobile and could not communicate any of her needs. She could not really do anything for herself³⁶⁶. She required the assistance of two nurses to get in and out of bed³⁶⁷. Mrs Stirrat was assessed as totally dependent³⁶⁸.

25. Annie Thomson (room 14) was 87 years old. She had moved into Rosepark Care Home on 9 January 2004, following an unsuccessful hip replacement operation³⁶⁹. She was unable to walk at all and would require two members of staff to transfer her in and out of bed³⁷⁰. She had an in situ catheter which would require to be dealt with if she had to be moved during the night³⁷¹. She was dependent on staff to a significant degree³⁷².

³⁶³ Deborah Milne, 16 November 2009, am, pp. 132-134; Allison Cumming, 19 November 2009, am, pp. 89-90.

³⁶⁴ Allison Cumming, 19 November 2009, am, pp. 90-91.

³⁶⁵ Phyllis West, 23 November 2009, pm, p. 29.

³⁶⁶ Helen Carpenter, 16 November 2009, pm, p. 2; Allison Cumming, 19 November 2009, am, pp. 96-

³⁶⁷ Allison Cumming, 19 November 2009, am, p. 98.

³⁶⁸ Allison Cumming, 19 November 2009, am, pp. 98-99.

³⁶⁹ Madeleine Asken, 16 November 2009, am, pp. 12-13, 22; Allison Cumming, 19 November 2009, am, pp. 118-119.

³⁷⁰ Madeleine Asken, 16 November 2009, am, p. 13; Allison Cumming 19 November 2009, am, p. 121.

³⁷¹ Allison Cumming, 19 November 2009, am, pp. 119-121.

³⁷² Madeleine Asken, 16 November 2009, am, p. 26.

CHAPTER 6: CONSTRUCTION OF ROSE PARK HOME

Background

1. In late 1989 or early 1990 Thomas and Anne Balmer identified care for the elderly as an emerging business opportunity. Existing care provision in the area appeared to them to be unsatisfactory, and they determined to construct a purpose-built Home up to the standard of the day and providing the best of care³⁷³. They had no previous experience of running a care home³⁷⁴. Thomas Balmer's background was in the food industry³⁷⁵. Anne Balmer's experience was secretarial and administration³⁷⁶.

2. Mr and Mrs Balmer acquired an old house which sat on the site at 261 New Edinburgh Road. They had the existing house demolished and set about preparing plans for the building³⁷⁷. After an abortive experience with another architect³⁷⁸, Mr Balmer contacted William Dickie, an architect based in Motherwell³⁷⁹.

3. In relation to the construction of the Home:-

3.1. Planning permission was required; and

3.2. Building warrant was required³⁸⁰.

4. Before the Home could open, it required to be registered with Lanarkshire Health Board³⁸¹.

Mr Dickie's instructions at the outset

³⁷³ Thomas Balmer, 28 April 2010, am, pp. 9-11.

³⁷⁴ Thomas Balmer, 28 April 2010, am, pp. 8, 11-12.

³⁷⁵ Thomas Balmer, 28 April 2010, am, pp. 8-9.

³⁷⁶ Anne Balmer, 15 July 2010, am, pp. 57-58.

³⁷⁷ Thomas Balmer, 28 April 2010, am, p. 11.

³⁷⁸ Thomas Balmer, 28 April 2010, am, pp. 14-17.

³⁷⁹ Thomas Balmer, 28 April 2010, am, pp. 17-18.

³⁸⁰ Thomas Balmer, 28 April 2010, am, p. 21.

³⁸¹ Thomas Balmer, 28 April 2010, am, pp. 20-21.

5. Mr Balmer met Mr Dickie at his office to discuss the proposed project. Mr Balmer's instructions were to design a Care Home to suit the site available³⁸². When Mr Balmer was first asked what he instructed Mr Dickie to do he said this³⁸³:-

“Well I spoke with Mr Dickie of our intention and we made arrangements to visit the site and for Mr Dickie to come up with a plan suitable to the site and that's eventually what happened.”

And when pressed as to what his brief was to Mr Dickie when they first met, Mr Balmer said this³⁸⁴:-

“To prepare plans for ... suitable plans for to build Rosepark Care Home”

Planning permission

6. Mr Dickie prepared plans for the purposes of submitting an application for planning permission. These were submitted first to Lanarkshire Health Board in August 1990³⁸⁵ and discussed with Health Board representatives at a meeting in September 1990³⁸⁶. Mr Dickie submitted, on behalf of Mr and Mrs Balmer, an application for planning permission. Planning permission was given on 6 March 1991³⁸⁷.

Building warrant

7. On 4 December 1990 Mr Dickie submitted an application to Motherwell District Council, on behalf of Mr and Mrs Balmer, seeking building warrant³⁸⁸. The plans lodged with the application for building warrant included, as would be expected, significantly more detail than those which had been lodged for planning permission.

8. On 1 February 1991 Hugh Gibb, the building control officer, wrote to Mr Dickie listing 23 matters which required attention. These included³⁸⁹:-

³⁸² William Dickie, 12 January 2010, am, p. 157.

³⁸³ Thomas Balmer, 28 April 2010, am, p. 18.

³⁸⁴ Thomas Balmer, 28 April 2010, am, p. 81.

³⁸⁵ Pro 817, p. 240; Thomas Balmer, 28 April 2010, am, pp. 18-19.

³⁸⁶ Pro 817, p. 241; Thomas Balmer, 28 April 2010, am, pp. 22-23.

³⁸⁷ Pro 807, p. 5; Pro 815, p. 43 (manuscript) Thomas Balmer, 28 April 2010, am, pp. 22, 67, 81-84.

³⁸⁸ Pro 1107, p. 4; William Dickie, 12 January 2010, pm, pp. 8-12; Thomas Balmer, 28 April 2010, am, pp. 83-85.

³⁸⁹ 1107, pp. 31-32; William Dickie, 12 January 2010, pm, pp. 83-85.

“10. The position of all self-closing, fire-resistant doors must be clearly indicated on the submitted plans.

...

12. The position of the required cavity barriers to the roof space, suspended ceiling and timber kit should be clearly indicated on the completed plans.

...

19. The dimensions and position of the noted mechanical extract fans must be clearly indicated on the submitted plans.”

Mr Dickie’s assistant, Mr Murray, met with Mr Gibb and amendments were made to the drawings with a view to satisfying Mr Gibb’s requirements³⁹⁰.

9. On 9 May 1991 Motherwell District Council granted building warrant subject to the conditions: (a) that the building be erected in accordance with the plans lodged with the application and the particulars given in the application; and (b) that the building be erected in accordance with the Building Standards (Scotland) Regulations as amended³⁹¹.

10. Of significance in the context of the present inquiry are the following features of the warranted drawings:

Compartmentation

10.1. The drawing showed the following:-

10.1.1. The stairwells were to be enclosed in separate compartments.

10.1.2. The corridor between the two stairwells was to be sub-divided by a fire door – the corridor 3/4 fire door and fire doors were specified on either side of the central stairwell and between corridor 4 and the south-

³⁹⁰ William Dickie, 12 January 2010, pm, pp. 89-94; John Murray, 14 January 2010, pm, pp. 61-70. .

³⁹¹ Pro 1107, p. 36; William Dickie, 12 January 2010, pm, pp. 12-14; Thomas Balmer, 28 April 2010, am, pp. 88-89.

west stairwell. The drawing did not specify the provision of glazed panels in the fire doors³⁹².

10.1.3. The drawing showed the location of cavity barriers. A note to the drawing specified: “Cavity barriers in loft space – 12.7 mm plasterboard fixed to both sides of truss + 100 mm Rockwool blanket down to susp. Ceiling”. A side note further specified “also between mid-floor & susp. Ceiling”.

Electrical installation

11. The drawings identified the location (in the case of bedrooms, typical location) of light fittings, light switches and power points. A note to the drawings specified³⁹³: “All electrical work to be carried out in accordance with the latest IEE Regulations”, The relevant edition of the IEE Regulations was the 15th edition³⁹⁴.

Mechanical ventilation

12. The warranted drawings specified an extract ventilation system. In particular, the plan of the ground (upper) floor) specified a run of ventilation ducting serving the central stairwell and corridors 3 and 4³⁹⁵.

12.1. The run of ductwork was shown to start approximately opposite the door to room 14, to run the length of corridor 4, through the line of the corridor 3/4 fire door, along the length of corridor 3, through the line of the wall of the central stairwell, and terminating in the central stairwell. At various points along the run of ductwork, were symbols indicating where vents should be installed.

12.2. A riser to an extract fan was indicated opposite room 17.

³⁹² William Dickie, 13 January 2010, am, pp. 82-83.

³⁹³ William Dickie, 13 January 2010, am, pp. 53-57

³⁹⁴ Alexander Ross, 27 January 2010, pm, pp. 70-71.

³⁹⁵ Pro 1107, p. 70; Pro 1106, p. 4; William Dickie, 12 January 2010, pm, pp. 42-49; 94-97.

12.3. Spurs were shown connecting the run of ductwork to each of cupboard A2 and the linen cupboard.

12.4. In the course of corridor 4, the run of ductwork was shown crossing cavity barriers at the partition between rooms 10 and 11 and just to the east of the corridor 3/4 fire door.

13. A note to the drawing specified:

13.1. That the mechanical ventilation was to provide a specified number of air changes per hour (the number varying with the type of space being ventilated);

13.2. That it was to be ducted through the roof to external air;

14. An asterisk next to that note indicated a side-note which read as follows:-

“Ventilation ducts shown dotted.

Fans through roof shown [symbol]

Fire dampers to duct where passing through floor, cavity barrier or stair enclosure”.

15. This note had been added in response to Mr Gibb’s letter of 1 February 1991³⁹⁶.

Compliance of drawings with building standards; adequacy for construction purposes

16. The warranted drawings complied with the building standards which were applicable at the time, namely the Building Standards (Scotland) Regulations 1981, as amended³⁹⁷. However, the information on them would require to be amplified for the purposes of construction³⁹⁸.

17. The information on the warranted drawings about the electrical installation would require to be amplified by a further process of design. For example, the

³⁹⁶ William Dickie, 12 January 2010, pm, pp. 83-94; John Murray, 14 January 2010, pm, pp. 61-70.

³⁹⁷ Thomas Sorbie.

³⁹⁸ John Spencely, 23 July 2010, am, pp. 29-30.

warranted drawings did not indicate the locations of the main electrical board and sub-boards³⁹⁹. Mr Ross confirmed that he would usually have a drawing showing at least the points to which the cables were to run⁴⁰⁰.

18. The information on the warranted drawings about the mechanical ventilation system was not sufficient for the installation of the system. A further process of detailed design would be necessary⁴⁰¹. Ordinarily, this would be undertaken either by a specialist consultant or a competent ventilation contractor⁴⁰². It is a process which would require a degree of expertise⁴⁰³.

The construction process

Duration of the build

19. Work started on site in or about April 1991 (although it was stopped by the building control officer on 25 April pending grant of the building warrant)⁴⁰⁴. On 5 February 1992 a completion certificate was issued under the Building (Scotland) Act 1959⁴⁰⁵.

Contractual arrangements and Mr Balmer's role

20. Mr Balmer's intention from the outset had been to co-ordinate the project himself⁴⁰⁶. He placed separate contracts with different contractors for the various elements of the work⁴⁰⁷. These included, inter alia, of significance in relation to this inquiry, Star Electrical Services (Strathclyde) Ltd as electrical contractors (and, in

³⁹⁹ William Dickie, 13 January 2010, am, pp. 53-57.

⁴⁰⁰ Alexander Ross, 26 January 2010, pm, pp. 69-73, 76-78.

⁴⁰¹ John Spencely, 23 July 2010, am, pp. 34-39, 43-44, 81-82.

⁴⁰² William Dickie, 12 January 2010, pm, pp. 26, 71-74, 14 January 2010, am, pp. 176-end; pm, pp. 1-8; John Spencely, 23 July 2010, am, pp. 34-36

⁴⁰³ John Spencely, 23 July 2010, am, pp. 39-42.

⁴⁰⁴ Pro 1291, p. 4; Hugh Gibb, 3 February 2010, am, p. 142; Thomas Balmer, 28 April 2010, am, pp. 96-97

⁴⁰⁵ Thomas Balmer, 28 April 2010, am, pp. 67-68.

⁴⁰⁶ Thomas Balmer, 28 April 2010, am, pp. 86-88.

⁴⁰⁷ Thomas Balmer, 28 April 2010, am, pp. 90-93, 100.

addition, to install the mechanical ventilation system) and Comtec Services Ltd to supply the fire alarm system, fire extinguishers and nurse call system⁴⁰⁸.

21. According to Mr Balmer, the contracts took the form of a simple acceptance of a quotation to design, supply and install the relevant works⁴⁰⁹. These quotations were sent directly to Mr Balmer rather than to Mr Dickie⁴¹⁰. Mr Balmer himself supplied the joinery materials. The other materials were supplied by the individual contractors⁴¹¹. He engaged a quantity surveyor for the sole purpose of taking off the quantities which he required to supply, but for no other purpose⁴¹². There was no bill of quantities⁴¹³. There was a complete lack of specification of the contractual arrangements with the subcontractors. In a contract of this nature there would normally be an architect and a quantity surveyor with detailed plans from the architect and a bill of quantities from the quantity surveyor. Competing subcontractors would quote for the work involved. When the subcontracts were awarded contractual obligations of parties would be clear. There would be regular site meetings involving the architect, the main contractors, a clerk of works if one was appointed, and subcontractors. Minutes would be taken. None of these arrangements took place at Rosepark. There was a complete lack of specification of the obligations of subcontractors.

22. Mr Balmer was on site throughout the construction of the building. Most days he would be on site before 8 am and would remain there until about 6 pm. He supplied some of the materials. He assisted some of the tradesmen⁴¹⁴. He had prepared a plan at the outset and coordinated the work of the different trades when the plan went asunder. He issued verbal instructions for changes to the works⁴¹⁵. He dealt

⁴⁰⁸ Iain Fotheringham, 15 January 2010, am, pp. 16-21; Thomas Balmer, 28 April 2010, am, pp. 93-94, pm, pp. 64-65.

⁴⁰⁹ Thomas Balmer, 28 April 2010, am, pp. 114-115, 119-120, pm, pp. 10-11.

⁴¹⁰ Thomas Balmer, 28 April 2010, pm, p. 12.

⁴¹¹ Thomas Balmer, 28 April 2010, am, pp. 116-119.

⁴¹² Thomas Balmer, 28 April 2010, am, pp. 116-117.

⁴¹³ Thomas Balmer, 28 April 2010, pm, pp. 12-13.

⁴¹⁴ Alexander Ross, 26 January 2010, pm, p. 47; George Harvie, 29 January 2010, am, p. 43; Thomas Balmer, 28 April 2010, am, pp. 103-112.

⁴¹⁵ George Harvie, 29 January 2010, am, pp. 42-43.

with the building control officer in relation to changes to the works⁴¹⁶. He did not have regular site meetings⁴¹⁷.

23. As Mr Balmer accepted, in effect he set himself up as the main contractor⁴¹⁸ and took on the responsibility of clerk of works⁴¹⁹. Although he had previously coordinated the trades for the construction of three private houses⁴²⁰, he was not qualified in any building trade⁴²¹. He had never been involved in a building which involved the concerns for compartmentation inherent in the construction of a care home or extract ventilation systems of the sort installed at Rosepark⁴²².

Star Electrical Services (Strathclyde) Ltd

24. The electrical work was contracted to Star Electrical Services (Strathclyde) Ltd⁴²³. The exact electrical work which was the subject of the contract was not specified. The employees of Star Electrical Services (Strathclyde) Ltd worked to the order of Thomas Balmer. The principal of the company was George Harvie.

25. The Star Electrical employees who did most of the work on site were Alexander Ross and an apprentice, although from time to time other electricians were also engaged on work at Rosepark⁴²⁴. Although Mr Ross had no formal responsibility as foreman, he was the principal point of contact both for other electricians and also for Mr Balmer⁴²⁵. Alexander Ross was employed by Star Electrical as an electrician. He was paid as an electrician and not as a charge hand. He was instructed when he should attend the site. In the event that additional staff were necessary at any time, this was arranged by George Harvie.

⁴¹⁶ Thomas Balmer, 28 April 2010, pm, pp. 30-31.

⁴¹⁷ Thomas Balmer, 28 April 2010, am, pp. 112-113.

⁴¹⁸ Thomas Balmer, 28 April 2010, am, p. 100; see also George Harvie, 29 January 2010, am, pp. 40-41.

⁴¹⁹ Thomas Balmer, 28 April 2010, am, p. 113.

⁴²⁰ Thomas Balmer, 28 April 2010, am, p. 101.

⁴²¹ Thomas Balmer, 28 April 2010, am, pp. 110-111; 29 April 2010, am, p. 25.

⁴²² Thomas Balmer, 29 April 2010, am, pp. 21-23.

⁴²³ George Harvie, 29 January 2010, am, pp. Thomas Balmer, 28 April 2010, am, pp. 97-99.

⁴²⁴ Alexander Ross, 26 January 2010, pm, pp. 37-38, 28 January 2010, am, pp. 51-52, pm, pp. 51-55; George Harvie, 29 January 2010, am, p. 47; Thomas Balmer, 28 April 2010, pm, p. 58; 29 April 2010, am, pp. 10-11..

⁴²⁵ Alexander Ross, 28 January 2010, pm, pp. 57-58; Thomas Balmer, 28 April 2010, pm, pp. 58-59.

26. Mr Harvie did not undertake installation work himself⁴²⁶ although he kept an eye on the work which his electricians were undertaking⁴²⁷. He would walk round the site after work checking that everything was in order, but he would not normally, if a distribution box had been fitted, take off the front plate to check that it had been wired correctly⁴²⁸.

Electrical installation

27. Mr Ross worked from the warranted drawing. Star Electrical had a copy of this drawing which was pinned to a wall at Rosepark and marked up⁴²⁹. The location of the distribution boards was agreed between Star Electrical Services (Strathclyde) Ltd and Mr Balmer⁴³⁰. Mr Ross would deal directly with Mr Balmer in relation to such matters as the positioning of sockets, switches and lighting points⁴³¹.

28. Once Mr Ross knew where the distribution boards were going to be, Mr Ross would work out the best routes for the cables⁴³². Before the partitions, floors and ceilings were in place he would lay the cable runs from the mains to the main distribution board, from there to the subsidiary distribution boards, and from the distribution boards to the appliances⁴³³. Once the cable runs had been laid, the distribution boards would be installed⁴³⁴. Towards the end of the job, the power points, light fittings etc would be installed⁴³⁵.

Mechanical ventilation system

29. Star Electrical Services (Strathclyde) Ltd also agreed to install the ventilation system. There was a direct conflict between Mr Balmer and Mr Harvie as to who

⁴²⁶ Alexander Ross, 26 January 2010, pm, p. 38; George Harvie, 29 January 2010, am, pp. 48-49.

⁴²⁷ George Harvie, 29 January 2010, am, p. 49.

⁴²⁸ George Harvie, 29 January 2010, am, pp. 125-126.

⁴²⁹ Alexander Ross, 26 January 2010, pm, pp. 59-60.

⁴³⁰ Thomas Balmer, 28 April 2010, pm, pp. 54-55; 29 April 2010, am, p. 6; Alexander Ross, 26 January 2010, pm, pp. 69-73.

⁴³¹ Alexander Ross, 26 January 2010, pm, pp. 47-48, 77-78; George Harvie, 29 January 2010, am, p. 46; Thomas Balmer 28 April 2010, pm, pp. 56-57; 29 April 2010, am, pp. 6-7.

⁴³² Alexander Ross, 26 January 2010, pm, pp. 76-78.

⁴³³ Alexander Ross, 26 January 2010, pm, pp. 57-60.

⁴³⁴ Alexander Ross, 27 January 2010, am, pp. 17-19.

⁴³⁵ Alexander Ross, 26 January 2010, pm, pp. 57-58.

took the initiative in relation to this matter, but no dispute as the outcome. According to Mr Harvie, he told Mr Balmer that Star Electrical were not ventilation engineers but that they had done similar work, albeit not on such a big scale⁴³⁶. According to Mr Balmer, Mr Harvie assured him that they did it “all the time” and that they had just installed such a system at Law Hospital⁴³⁷.

30. According to Mr Balmer, the quotation was to “design, supply and install” the ventilation system⁴³⁸. The quotation contained no reference to fire dampers⁴³⁹. According to Mr Harvie the quotation was for connecting and supplying the fans and the ducting and any grilles that were required⁴⁴⁰. There was no other evidence about the terms of the contract for the installation of a mechanical ventilation system. In the absence of a written contract specifying what exactly Star Electrical Services (Strathclyde) Limited undertook to perform, it has not been possible to determine the terms of that contract. In particular, it has not been possible to determine whether, in terms of that contract, Star Electrical Services (Strathclyde) Limited undertook to install fire dampers. The architect, William Dickie, expected there would have been a drawing produced for the mechanical ventilation system on the basis of his outline drawing which was used to obtain planning approval and building warrant. No such working drawing was produced and there was no specification of the contractual arrangements

31. Before this contract, Star Electrical had limited experience of mechanical ventilation systems. They had undertaken smaller scale systems involving ducting on other jobs⁴⁴¹. Mr Ross had, personally, only been involved in installing fans in toilet areas, involving lengths of ducting of 2-3 metres⁴⁴² and pre-fitted grilles⁴⁴³. He was

⁴³⁶ George Harvie, 29 January 2010, pm, pp. 10-11, 16

⁴³⁷ Thomas Balmer, 28 April 2010, pm, pp. 64-68; 29 April 2010, am, pp. 35-37.

⁴³⁸ Thomas Balmer, 28 April 2010, pm, pp. 68-69.

⁴³⁹ Thomas Balmer, 29 April 2010, am, p. 33

⁴⁴⁰ George Harvie, 29 January 2010, pm, p. 31

⁴⁴¹ Alexander Ross, 26 January 2010, pm, pp. 45, 102; George Harvie, 29 January 2010, pm, pp. ; 2 February 2010, am, p. 40-42.

⁴⁴² Alexander Ross, 27 January 2010, pm, pp. 96-100.

⁴⁴³ Alexander Ross, 27 January 2010, am, pp. 67-68.

surprised when Mr Harvie instructed him to install the ducting⁴⁴⁴. He did not express his surprise to Mr Harvie⁴⁴⁵. His position in evidence was:

“I felt it really wasnae our job but you just have to do what you’re told”

32. Mr Harvie did not know what a fire damper was. He had never seen one. He was unfamiliar with the concept of fire-stopping, did not know the function of a cavity barrier and did not recognise a photograph of a Rockwool cavity barrier at Rosepark⁴⁴⁶. Tellingly, when shown production 850A he took the view that the gaps around the ducting were no more than a cosmetic issue⁴⁴⁷. His impression was that, in the similar work that Star had done before, it had always been the main contractor who fitted dampers and firewalls. Star had no experience of making holes in firewalls which was something they would leave to a joiner⁴⁴⁸. He was not qualified to specify the fan required to achieve the performance specification on the drawings⁴⁴⁹.

33. Mr Harvie took the drawing to the technical department of Vent-Axia, specialist suppliers of ventilation equipment. He asked Vent-Axia for a quote for the work that Star always carried out, namely the fans, ducting and grilles⁴⁵⁰. They marked on the drawing a note of the required sizes and number of fans to meet the performance specification. This was a service which Vent-Axia offered free. Vent-Axia also gave an estimate for the equipment required⁴⁵¹. A Vent-Axia representative met Mr Harvie on site⁴⁵².

34. Although Mr Ross had the warranted drawings available to him, he did not refer to the drawing when carrying out the installation, but worked to Mr Balmer’s instructions⁴⁵³. Mr Balmer indicated the points where he wanted the inlet and outlet points to be and Mr Ross ran the ducting within the suspended ceiling to fit those positions. The ducting generally followed the line indicated on the warranted

⁴⁴⁴ Alexander Ross, 26 January 2010, pm, pp. 45, 100-101.

⁴⁴⁵ Alexander Ross, 27 January 2010, am, pp. 40-41.

⁴⁴⁶ George Harvie, 29 January 2010, pm, pp. 38-45.

⁴⁴⁷ George Harvie, 29 January 2010, pm, pp. 38-39.

⁴⁴⁸ George Harvie, 29 January 2010, pm, p. 16.

⁴⁴⁹ George Harvie, 29 January 2010, pm, pp. 19-20.

⁴⁵⁰ George Harvie, 2 February 2010, am, pp. 28-29.

⁴⁵¹ George Harvie, 29 January 2010, pm, pp. 18-24.

⁴⁵² Alexander Ross, 27 January 2010, am, pp. 42-45, 68-72; George Harvie, 29 January 2010, pm, pp.

34-37; Thomas Balmer, 28 April 2010, pm, p. 70.

⁴⁵³ Alexander Ross, 27 January 2010, am, pp. 60-64.

drawings⁴⁵⁴. Circular ventilation grilles, through which air would be extracted from the corridor into the ventilation ducting, were fitted inter alia in corridors 4 and 3⁴⁵⁵. Joiners who were on site assisted with fitting the ducting so that it ran out to the roof, and by cutting holes as required in the ceiling tiles and in partitions through which ducting required to pass⁴⁵⁶.

35. When Mr Ross carried out this work, he had never heard of, nor had he fitted, a fire damper. He had not been aware of the Note to the drawing which referred to fire dampers when he carried out the work. He was not provided with any fire dampers and did not install any⁴⁵⁷. He was unfamiliar with the term “fire stop”⁴⁵⁸. The holes through partitions were cut by joiners. He understood that his responsibility was simply to lead the ducting through the hole and that someone else would finish off the hole afterwards. He was not provided with any materials for the purpose of making a seal⁴⁵⁹.

36. Mr Balmer was aware of the note on the warranted drawing which specified fire dampers⁴⁶⁰. He deduced from reading that note what the purpose of a fire damper was. However he had never seen a fire damper before, did not know what a fire damper looked like, and did not ask anybody else what a fire damper was. He did not recall any reference to fire dampers in any discussion he had with Mr Harvie and did not raise with Mr Harvie whether or not his quotation included for fire dampers. He never saw any design relating to the ventilation system produced by Mr Harvie or anyone else. He did not ask to see a working drawing of design details relating to a ventilation system. He did not ask any Star Electrical employee or Mr Harvie whether they had fitted fire dampers⁴⁶¹.

37. While the work was ongoing, Mr Balmer saw ductwork passing through the cavity barriers at the fire door between corridor 3 and corridor 4 and in corridor 4 and

⁴⁵⁴ Alexander Ross, 27 January 2010, am, p. 73.

⁴⁵⁵ Alexander Ross, 27 January 2010, am, pp. 83-84.

⁴⁵⁶ Alexander Ross, 27 January 2010, am, pp. 49-60, 84-85; George Harvie, 29 January 2010, pm, pp. 37-38.

⁴⁵⁷ Alexander Ross, 27 January 2010, am, pp. 92-95, 98-99.

⁴⁵⁸ Alexander Ross, 27 January 2010, am, p. 87; see also George Harvie, 29 January 2010, pm, p. 38.

⁴⁵⁹ Alexander Ross, 27 January 2010, am, pp. 89-91.

⁴⁶⁰ Thomas Balmer, 29 April 2010, am, pp. 31-32.

⁴⁶¹ Thomas Balmer, 28 April 2010, pm, pp. 71-72, 76, 80-86; 29 April 2010, am, pp. 31-33, 38-39.

at other locations⁴⁶². He assumed that the fire damper would be contained within the ductwork itself⁴⁶³.

Amendment to the Building Warrant

38. On 21 November 1991 Mr Dickie lodged, as agent for Mr and Mrs Balmer, an application for amendment to the building warrant. This covered changes to the layout of the staff rooms and laundry room, repositioning of washhand basins, alterations to the sluice and DSR, the provision of stores and the layout of the main entrance foyer⁴⁶⁴. An amendment to the warrant was granted on 2 January 1992 subject to the condition “that the amendment shall be effected in conformity with the plans lodged with the application and in accordance with the particulars given in the application and in the schedule thereto”⁴⁶⁵. The drawings to which this amendment related made no change in relation to the mechanical ventilation system and the notes relative to the cavity barriers and electrical work remained unchanged⁴⁶⁶.

Attendance on site by Mr Dickie

39. Mr Dickie visited the site on occasion. He was seen there by at least contractors⁴⁶⁷. He himself recalled being there not more than three times⁴⁶⁸. According to Mr Balmer, Mr Dickie was “on site continually”⁴⁶⁹. “Mr Dickie came round - it could be weekly or two weekly - but on a very regular basis to have a walk through the building, etcetera, etcetera”⁴⁷⁰. “... he dropped in on a regular basis and on any other occasion that I specifically asked him to be for a particular purpose”⁴⁷¹. Mr Dickie certainly dealt with the application for amendment to the building warrant⁴⁷². He also attended to deal with a specific issue relating to the timber kit⁴⁷³.

⁴⁶² Thomas Balmer, 28 April 2010, pm, p. 85.

⁴⁶³ Thomas Balmer, 28 April 2010, pm, pp. 71-72, 76, 80-86; 29 April 2010, am, pp. 31-33, 38-39.

⁴⁶⁴ Pro 1106, p. 8; William Dickie,

⁴⁶⁵ Pro 1106, p. 7.

⁴⁶⁶ William Dickie, 13 January 2010, am, pp. 81-82.

⁴⁶⁷ George Harvie, 29 January 2010, am, p. 44; Iain Fotheringham; cf Alexander Ross, 26 January 2010, pm, pp. 48-51.

⁴⁶⁸ William Dickie, 12 January 2010, pm, p. 76-78

⁴⁶⁹ Thomas Balmer, 28 April 2010, pm, p. 18.

⁴⁷⁰ Thomas Balmer, 28 April 2010, pm, p. 21.

⁴⁷¹ Thomas Balmer, 28 April 2010, pm, p. 22.

⁴⁷² Thomas Balmer, 28 April 2010, pm, p. 20.

Mr Murray attended the site only once, to discuss a small discrepancy relating to the timber kit with Mr Balmer⁴⁷⁴.

Mr Dickie's role

40. The contract between Mr Balmer and Mr Dickie was not committed to writing⁴⁷⁵. There was an apparently stark conflict of evidence as to what Mr Dickie's role was. Mr Dickie's position that he was engaged on a "plans only" basis rather than on a "full service" basis⁴⁷⁶. Mr Balmer's position was that Mr Dickie's fee covered "Preparing the plans for planning, building control, obtaining necessary warrant and regular inspection of the building"⁴⁷⁷. Mr Balmer also stated that Mr Dickie's function when he visited the site was to satisfy himself that "the building was being built according to the plans submitted"⁴⁷⁸ and that his understanding was that "Mr Dickie was supervising ... on a regular basis ... it was a supervisory capacity. It may have been limited, it may have been as a favour, but my understanding is, he was, he was definitely supervising. Probably arm's length, but supervising nonetheless"⁴⁷⁹.

41. I take the view that Mr Dickie was engaged on a plans-only basis and that his attendance at the site from time to time did not imply that he was undertaking a full service responsibility. I do so for the following reasons:

41.1. Mr Balmer's initial oral discussions with Mr Dickie only related to the preparation of plans. There was no written specification of the contractual arrangements between Mr Dickie and Thomas Balmer.

41.2. An all-inclusive fee was agreed at the outset, when the only services which had been discussed concerned the production of plans.

⁴⁷³ William Dickie, 12 January 2010, pm, pp. 77-78; Thomas Balmer, 28 April 2010, pm, p. 21.

⁴⁷⁴ John Murray, 14 January 2010, pm, pp 77-78.

⁴⁷⁵ Thomas Balmer, 28 April 2010, pm, pp. 26, 27.

⁴⁷⁶ For the distinction, see William Dickie, 12 January 2010, am pp. 147-155.

⁴⁷⁷ Thomas Balmer, 28 April 2010, pm, p. 24.

⁴⁷⁸ Thomas Balmer, 28 April 2010, pm, p. 23

⁴⁷⁹ Thomas Balmer, 28 April 2010, pm, pp. 39-40.

41.3. In a full service arrangement, the architect would expect to have assisted the client in letting contracts⁴⁸⁰. He would also be involved in the development (whether by the architect or by others) of construction drawings and would expect to see those⁴⁸¹. Mr Dickie was not involved in either of these activities. He had limited knowledge of the contractors and consultants involved in the project⁴⁸².

41.4. In contracts where Mr Dickie was offering a full service, there would be regular site meetings. There were none at Rosepark⁴⁸³. The meetings would have been attended by all subcontractors. The contractual arrangements in respect of the subcontracts would have been available to these meetings. If Mr Dickie had been employed to provide a full service, he would have been involved in preparing or obtaining working drawings and the contractual arrangements regarding the subcontracts.

41.5. The mere fact that the architect has responded to requests from the client for information or assistance, or, indeed, attended on site to deal with a particular issue, does not of itself imply that the architect was engaged to undertake periodic inspections, which would be a quite distinct and separate operation⁴⁸⁴.

41.6. Mr Balmer accepted that Mr Dickie's attendance at the site may simply have been as a favour for a client from whom Mr Dickie might anticipate some future work⁴⁸⁵.

Completion of the electrical installation

42. In terms of the IEE Regulations, the electrical installation should have been inspected and tested on completion⁴⁸⁶ and a completion certificate issued⁴⁸⁷.

⁴⁸⁰ William Dickie, 12 January 2010, am, pp. 147-155, pm, pp. 73-74.

⁴⁸¹ William Dickie, 12 January 2010, pm, pp. 25-26; 14 January 2010, pm, pp. 1-8; see also John Spencely, 23 July 2010, am, pp. 44-46, 81-82.

⁴⁸² William Dickie, 13 January 2010, am, pp. 56-59.

⁴⁸³ George Harvie, 2 February 2010, am, p. 52.

⁴⁸⁴ John Spencely, 23 July 2010, am, pp. 28-29.

⁴⁸⁵ Thomas Balmer, 28 April 2010, pm, pp. 27-29.

43. No such inspection and testing was undertaken.

43.1. Alexander Ross did not inspect or test the installation in accordance with the IEE Regulations on completion⁴⁸⁸.

43.2. Mr Ross was unaware of anyone else undertaking such an inspection or test⁴⁸⁹.

43.3. Mr Harvie participated in a walk-round the building on completion, but did not himself undertake an inspection to IEE standards or testing⁴⁹⁰.

43.4. Mr Harvie believed that the system had been tested, but this belief was based on an assumption that – in accordance with what Mr Harvie regarded as normal procedure - Mr Ross had undertaken the necessary testing in circumstances where nothing untoward had been drawn to Mr Harvie's attention⁴⁹¹. Mr Harvie did not, when pressed, maintain that he had instructed Alexander Ross to carry out electrical testing. Mr Harvie's evidence regarding what he maintained was a practice was based upon what he said were the duties of a charge hand electrician. However, Alexander Ross was not a charge hand electrician. His evidence was that he was not instructed to undertake the electrical testing.

44. Mr Balmer was not given – and did not ask for - any paperwork by Star Electrical Services (Strathclyde) Ltd⁴⁹².

45. It would not have been Mr Harvie's practice to inform the owner on completion of an electrical installation that there should be a periodic electrical inspection⁴⁹³.

⁴⁸⁶ Pro 1414, Chapter 61 (p. 114); Alexander Ross, 27 January 2010, pm, pp. 70-72

⁴⁸⁷ Pro 1414, 614-1 (p. 116); Alexander Ross, 27 January 2010, pm, p. 73.

⁴⁸⁸ Alexander Ross, 27 January 2010, pm, p. 76, 28 January 2010, am, p. 17.

⁴⁸⁹ Alexander Ross, 28 January 2010, am, p. 17.

⁴⁹⁰ George Harvie, 29 January 2010, am, p. 100.

⁴⁹¹ George Harvie, 29 January 2010, am, pp. 78-83, 100-111, 119-120.

⁴⁹² Thomas Balmer, 28 April 2010, pm, pp. 59-66.

⁴⁹³ George Harvie, 29 January 2010, pm, p. 6.

46. On 14 January 1992 Mr Harvie signed a certificate of compliance of the electrical installation⁴⁹⁴. This stated:

“We, Star Electrical Services (Strathclyde) Ltd ... in accordance with the provisions of section 9(3) of the Building (Scotland) Act 1959 as amended ... hereby certify that the electrical installation in the building at New Edinburgh Road, Viewpark, Uddingston, has been completed by me/under my supervision and to the best of my knowledge and belief complies with the Building Standards (Scotland) Regulations 1981, as amended and with the relevant conditions of the warrant for the erection/alteration/extension of the said building granted by the Motherwell District Council ...”

47. There was recovered from the filing cabinet in the Balmers’ office⁴⁹⁵, a document (production 570) which bore to be a “Form of Completion and Inspection Certificate” relating to Rosepark Nursing Home. This was in the style provided for in the 16th edition of the IEE Regulations⁴⁹⁶. It bore to certify that the installation at Rosepark Care Home had been designed, installed and inspected in accordance with the IEE Regulations. The certificates in respect of design and installation bore to have been issued by “Alex Ross Electrical” and bore in manuscript, against the word “Signature” the words “A Ross” and the date 30/1/92. The certificate in respect of inspection and testing also bore to have been issued by “Alex Ross Electrical” and bore in manuscript, against the word “Signature” the words “A Ross” and the date 1/2/03. The certificate bore to recommend that the installation be further inspected and tested after an interval of not more than one year.

48. This document does not provide any basis for concluding that the electrical installation at Rosepark had in fact been inspected and tested in the terms set out in the Certificate⁴⁹⁷. It was prepared by Thomas Balmer in early 2003 as an “aide memoire” with a view to asking Mr Ross to complete a form for exhibiting to a potential insurer for the purpose of obtaining a quotation. It was not signed by Alexander Ross.

Application for certificate of completion

⁴⁹⁴ Pro 1107, p. 7.

⁴⁹⁵ Carol Ann Brown, 12 August 1020, am, pp. 6-7.

⁴⁹⁶ Pro 1415, p. 251; Alexander Ross, 28 January 2010, am, pp. 29-30.

⁴⁹⁷ Thomas Balmer, 30 April 2010, pm, p. 40; see also 10 May 2010, am, pp. 114-130, pm, pp. 1-2.

49. On 17 January 1992, Mr Murray signed an application to Motherwell District Council for a certificate of completion, on behalf of Mr Dickie. This was done in Mr Dickie's absence⁴⁹⁸.

50. Mr Dickie's practice was to make such an application whether he was acting on a plans only or on a full service basis⁴⁹⁹. Mr Murray had authority to sign such applications on Mr Dickie's behalf.

51. The application was in the following terms⁵⁰⁰:-

"We Mr & Mrs T Balmer, 1 Caldwell Crescent, Motherwell, apply under section 9 of the Building (Scotland) Act 1959, as amended ... for a Certificate of Completion in respect of the works of erection ... of the building at New Edinburgh Road, Viewpark, Uddingston, with works were completed on 17th Jan 1992 and carried out in accordance with the warrant No MD/469/90 (and amendment MS/436/91 granted 2.1.92) in conformity with the relative plans and specifications and in accordance with the Building Standards (Scotland) Regulations 1982 as amended ... and I/we attach hereto a certificate granted under Section 9(3) of the Building (Scotland) Act 1959 by the person who installed the electrical installation certifying that the installation complies with the conditions on which the said warrant was granted."

52. Mr Murray adhibited Mr Dickie's name, as he had authority to do, and, against the words "Particulars of Agent" set out Mr Dickie's name and professional address and his profession, "Architect".

53. Mr Murray could not recall specifically how he came to sign this application, but stated that the client would have informed him that the work was complete and requested that the application be submitted⁵⁰¹. Mr Balmer's evidence was that Mr Dickie, during a visit to the site, had said "We're in a state of readiness, I do believe we should apply for a completion certificate". He had no recollection of speaking to Mr Murray⁵⁰². Mr Murray did not visit the site before submitting the application and

⁴⁹⁸ William Dickie, 13 January 2010, pp. 91-92; John Murray, 14 January 2010, pm, pp. 70-74.

⁴⁹⁹ William Dickie, 13 January 2010, am, pp. 87-91.

⁵⁰⁰ Pro 1107, p. 6.

⁵⁰¹ John Murray, 14 January 2010, pm, pp. 70-73.

⁵⁰² Thomas Balmer, 28 April 2010, pm, pp. 40-41.

took no other steps to establish whether the building had been constructed according to the Regulations or to the drawings⁵⁰³.

54. Mr Dickie's position was that, in submitting such an application, he was acting as his client's agent. He was making no representation on his own behalf that the building had in fact been completed in accordance with the warrant. In a case where he had been instructed on a plans only basis he would make such an application on being told by his client that the works were complete without making any check of the position himself⁵⁰⁴.

Certificate of completion

55. During the construction process, Mr Gibb had visited the site about 20 times⁵⁰⁵. Following the application for a completion certificate, Mr Gibb visited the site on 21 January⁵⁰⁶. A drain test was carried out on 24 January⁵⁰⁷. On 27 January Mr Gibb again visited the site⁵⁰⁸. His diary entry records: "Checked through roof space. Ventilation and quilt outstanding" but it is unclear whether the reference to "Ventilation" related to the mechanical ventilation system or ventilation of the roofspace⁵⁰⁹. He made a further visit on 5 February 1992⁵¹⁰ and the certificate of completion was issued on that date⁵¹¹.

⁵⁰³ John Murray, 14 January 2010, pm, pp. 74-77.

⁵⁰⁴ William Dickie, 13 January 2010, am, pp. 87-110, 118-119.

⁵⁰⁵ Hugh Gibb, 3 February 2010, am, p. 133.

⁵⁰⁶ Hugh Gibb, 3 February 2010, pm, pp. 16-17

⁵⁰⁷ Hugh Gibb, 3 February 2010, pm, p. 18-19

⁵⁰⁸ Hugh Gibb, 3 February 2010, pm, pp. 20-23.

⁵⁰⁹ Hugh Gibb, 3 February 2010, pm, p. 23; cp Thomas Balmer, 28 April 2010, pm, p. 44.

⁵¹⁰ Hugh Gibb, 3 February 2010, pm, pp. 26-30.

⁵¹¹ Pro 1107, p. 8; William Dickie, 13 January 2010, am, p. 112.

Note to Chapter 6

I have included in the findings in fact certain additions proposed on behalf of Alexander Ross. I am satisfied that these are born out by the evidence. I would comment that I deal with the evidence of Hugh Gibb, the Building Control Officer, in Chapter 46(4).

My great concern which I have identified in this Chapter is the total lack of appropriate written contractual arrangements between Mr Balmer, the architect, and the various subcontractors.

I have found there are no written contract between Mr Balmer and the architect. On the basis of the evidence which was available to the Inquiry, at paragraph 41 I have concluded that the architect was engaged on a plans only basis and I give my reasons for reaching that conclusion. I am able to do so on the basis of that evidence and despite the absence of a written contract.

As far as the subcontract between Mr Balmer and Star Electrical Services (Strathclyde) Limited for the electrical work and the mechanical ventilation system, there were no written contractual arrangements produced to the Inquiry. I am not prepared to conclude the terms of these contracts from such evidence as was adduced. In particular there is insufficient evidence to allow me to adjudicate, as far as the ventilation system is concerned, between Mr Balmer's evidence that the quotation was to "design, supply and install" the ventilation system, accepting that the quotation contained no reference to dampers, and the position of Mr Harvie of Star Electrical Services (Strathclyde) Limited who stated that the quotation was for connecting and supplying the fans and ducting and any grilles that were required. There is no evidence that I am prepared to accept that the contractual arrangement was, *inter alia*, to supply and install fire dampers.

These are exactly the type of arrangements which a professional architect or main contractor would require in a building of this nature. The absence of formal contracts can, in my opinion, be attributed to Mr Balmer's lack of experience in such matters. A professional architect would have inspected for dampers if he had been employed

on a full services basis. Similarly, Star Electrical Services (Strathclyde) Limited, if working under a professional main contractor or site agent, would be having their work supervised and the absence of fire dampers would have been noted. Mr Balmer himself was not aware what a fire damper looked like and was not in a position to act in the same manner as a professional main contractor or clerk of works.

It was submitted on behalf of Mr Balmer “It does appear, with the benefit of hindsight, that a number of difficulties that arose during the construction of the building could have been prevented by greater clarity between the parties in relation to their respect roles”. I would respectfully agree with that.

CHAPTER 7: REGISTRATION

1. On 8 December 1991, Mr Balmer wrote to Lanarkshire Health Board, reporting that building was nearing completion and requesting a visit of the Health Board Management Team and a registration form⁵¹². Representatives of the Health Board visited the Home on 16 December 1991. Among the other matters discussed were the Nursing Homes (Scotland) Act 1938 and the Nursing Homes Registration (Scotland) Regulations. The Home purchased copies of this legislation⁵¹³.

2. On 23 December 1991 the Health Board wrote to Mr Balmer enclosing a Form of Application for Registration and listing certain documents which required to be provided. These included “Letter from Strathclyde Fire Brigade confirming satisfaction with the fire safety arrangements”⁵¹⁴.

3. In response to this, Mr Balmer wrote on 29 December to the Divisional Commander, E Division Headquarters of the Fire Service, requesting a visit with a view to issuing a “Fire Safety Certificate”⁵¹⁵. On 15 January 1992 Mr Balmer met with Mr McNeilly, the fire safety officer. Drawings were provided to Mr McNeilly and he prepared his own drawings dealing with the fire precautions. He attended at Rosepark on 27 January 1992 to “prove” his drawings and met Mr Balmer and Mr Fotheringham⁵¹⁶. By this stage, the fire alarm system was virtually in a state of readiness⁵¹⁷. Mr McNeilly required:-
 - 3.1. additional smoke detector heads including a detector in the laundry cupboard next to cupboard A2⁵¹⁸.

 - 3.2. that all of the bedroom doors, which had been fitted with Perko chain door closers, should be fitted with overhead door closers⁵¹⁹.

⁵¹² Pro 817, p. 238; Thomas Balmer, 28 April 2010, am, pp. 24-26.

⁵¹³ Pro 817, p. 235; Thomas Balmer, 28 April 2010, am, pp. 27-34.

⁵¹⁴ Pro 815 p. 59 (manuscript); Thomas Balmer, 28 April 2010, am, pp. 59-61.

⁵¹⁵ Pro 1094, p. 19; Thomas Balmer, 28 April 2010, am, pp. 61-63.

⁵¹⁶ Thomas McNeilly, 22 January 2010, am, pp. 129-131

⁵¹⁷ Thomas McNeilly, 22 January 2010, am pp. 127-128, 130; Thomas Balmer, 29 April 2010, am, pp. 40-41

⁵¹⁸ Iain Fotheringham, 15 January 2010, am, pp. 80-81; Thomas McNeilly, 22 January 2010, am, pp. 139-140; Thomas Balmer, 29 April 2010, am, pp. 41-43.

4. The door closers were changed to meet Mr McNeilly's requirements⁵²⁰. Mr McNeilly explained to Mr Balmer that this was an aspect of protecting the means of escape⁵²¹.

5. Mr McNeilly also required that the cross-corridor firedoors which had been fitted in such a manner as to swing both ways should be changed to swing only in one direction⁵²². This evidence is supported by the following.

5.1. The warranted drawings provided that the doors should swing in both directions⁵²³.

5.2. Mr Murphy, who fitted the doors and Mr Fotheringham of Comtec recalled the doors being doors which swung both ways⁵²⁴.

5.3. Mr McNeilly's drawing indicated that they swung in one direction only.

6. On 27 January 1992, Mr Balmer wrote to Lanarkshire Health Board enclosing the application form for registration, intimating an intention to be completely ready for inspection on 7 February, and requesting a registration visit on that date⁵²⁵. The application form was signed by Mr and Mrs Balmer⁵²⁶ and stated that "The nursing home will be managed and administrated by the owners, Mr and Mrs T.W. Balmer"⁵²⁷.

7. On 4 February 1992 Mr Balmer again met with Mr McNeilly and requested a letter from the Fire Service to show the Health Board that the matter of the goodwill letter was being attended to⁵²⁸. On 14 February 1992 Mr McNeilly carried out a final

⁵¹⁹ Thomas Balmer, 29 April 2010, am, pp. 43-45; Anne Balmer, 15 July 2010, am, p. 105.

⁵²⁰ Thomas Balmer, 29 April 2010, am, p. 44

⁵²¹ Thomas Balmer, 29 April 2010, am, p. 94.

⁵²² Thomas Balmer, 29 April 2010, am, pp. 51-53.

⁵²³ William Dickie, 12 January 2010, pm, p. 34.

⁵²⁴ Iain Fotheringham, 15 January 2010, am, pp. 114-115, 126-127.

⁵²⁵ Pro 815, p. 36; Thomas Balmer, 28 April 2010, am, pp. 63-67.

⁵²⁶ Thomas Balmer, 28 April 2010, am, p. 66.

⁵²⁷ Thomas Balmer, 28 April 2010, am, p. 66.

⁵²⁸ Thomas Balmer, 29 April 2010, am, pp. 45-46.

survey of the premises⁵²⁹. Mr McNeilly did not carry out an inspection in respect of the provision of fire dampers. This was because, by the time he came to the job, he considered the building would have been checked by the architect, by Building Control, by the installer of the ventilation system, and by the person running the site (Thomas McNeilly 26 January 2010 am page 32-42). He phoned the Health Board to give verbal approval of the fire safety arrangements with promise of written approval to follow⁵³⁰.

8. On 20 February 1992, the Health Board issued a certificate of registration certifying that Lanarkshire Health Board had registered Rosepark Nursing Home, proprietors Mr T.W. Balmer and Mrs A. Balmer, in respect of a nursing home situation at 261 New Edinburgh Road, as from 17 February. The initial registration was for 30 beds only, although it was anticipated that this would be increased to 42 beds as the nursing staff was increased⁵³¹. The home was registered to care for the frail elderly, the elderly with mild mental impairment, the young physically disabled and terminally ill⁵³². On 13th April, a further Certificate was issued registering the Home for 42 beds⁵³³.

9. The good will letter from the Fire Service was issued on 25 February 1992 and addressed to Rosepark Nursing Home, marked for Mr Balmer's attention⁵³⁴. The letter was in the following terms:-

“REGISTRATION ROSE PARK NURSING HOME

Following an inspection of the above premises on Friday 14th February 1993, I confirm that the standards within the premises with regard to the undernoted are considered to be of a standard acceptable to this Brigade.

1. *Means of Escape in Case of Fire*
2. *Escape Lighting*
3. *Fire detection and Alarm Systems*
4. *Fire Fighting Equipment*
5. *Fire Safety Notices*

⁵²⁹ Thomas Balmer, 29 April 2010, am, pp. 46-47

⁵³⁰ Pro 815, p. 50 (manuscript); Thomas Balmer, 28 April 2010, am, pp. 69-70

⁵³¹ Pro 815, p. 24 (manuscript); Thomas Balmer, 28 April 2010, am, pp. 71-73.

⁵³² Thomas Balmer, 28 April 2010, am, p. 74.

⁵³³ Pro 815, pp. 29-30; Thomas Balmer, 28 April 2010, am, p. 77.

⁵³⁴ Pro 213, p. 4; Thomas Balmer, 29 April 2010, am, pp. 47-48.

Prior to occupation of the premises a suitable fire routine should be formulated and effective steps taken to ensure that both staff and residents are familiar with the procedure to be followed in the event of fire.”

10. On 10 March 1992 Mr Balmer forwarded to the Health Board inter alia a copy of the goodwill letter from the Fire Service and maintenance contracts⁵³⁵.

11. There was no requirement, for the purposes of a letter of comfort for the Health Board, that the Fire Service be satisfied in relation to matters of fire routine and the training of staff in that routine⁵³⁶. At the time, Mr McNeilly would have been satisfied that there were Staff Fire Notices on the walls at the premises in the form of Production 656⁵³⁷.

Note to Chapter 7

I have amended paragraph 7 in view of the submissions on behalf of Alexander Ross and SF&R. I am not prepared to amend further or to add the proposed “reasonable precaution” proposed on behalf of Alexander Ross.

On behalf of North Lanarkshire Council with reference to paragraph 2.1, it was submitted that consideration must be given to the fact that the fire door between corridor 3 and corridor 4 was open at some point during the fire. There was uncertainty surrounding the timing of this, but a number of witnesses including Mr Shipp and Mr Mortimore agreed that the ingress of smoke and toxic gases via the door was more important than that via the ducting. It was submitted there was doubt as to the extent of additional smoke and gas ingress into corridor 3 because of the lack of dampers. This issue is dealt with in Chapter 44(3)(f).

⁵³⁵ Pro 815, p. 131 (manuscript); Thomas Balmer, 28 April 2010, am, pp. 74-7

⁵³⁶ Thomas McNeilly, 22 January 2010, pm, pp. 81-82.

⁵³⁷ Thomas McNeilly, 22 January 2010, pm, pp. 71-78; 82-84.

CHAPTER 8: THE VENTILATION SYSTEM

General: ventilation systems and fire safety

1. A mechanical ventilation system may typically include ductwork the purpose of which is to carry air from one part of a building to another. In order to fulfill its function, the ductwork may require to penetrate barriers which are required to have a degree of fire resistance (whether compartment walls or cavity barriers). In that event, it is necessary that the system be designed and constructed in such a manner as to preserve the integrity of the structural fire precautions of the building. This would involve: (i) fire stopping (i.e. sealing any holes made in the compartment wall or cavity barrier made to allow the ductwork to penetrate it); and (ii) the installation of a damper which will, in appropriate circumstances, create a barrier within the ductwork.

Types of damper

2. There are three main types of damper: fire dampers; fire and smoke dampers and smoke control dampers⁵³⁸.

2.1. A fire damper is designed to hold back flames, although it will also hold back smoke to a certain extent⁵³⁹. Experiments undertaken by the BRE showed that such a damper would, indeed, once it closed, significantly prevent the flow of smoke along a duct, but that some smoke would escape along the duct before the damper would operate⁵⁴⁰.

2.1.1. Far the most common type of fire damper comprises a steel shutter which is held open in a frame, which is thermally activated to close in the event of a fire⁵⁴¹.

2.1.2. There is another type of fire damper, known as an intumescent damper. This typically contains rigid blades which do not move filled with

⁵³⁸ Norman Macdonald, 20 July 2010, am, p. 6.

⁵³⁹ Norman Macdonald, 20 July 2010, am, pp. 6-7.

⁵⁴⁰ Martin Shipp

⁵⁴¹ Norman Macdonald, 20 July 2010, am, pp. 6-7, 15

an intumescent material which, when exposed to heat, expands to close the opening around the blades⁵⁴².

2.2. A fire and smoke damper is designed to hold back both fire and smoke. The blades of such a damper interlock together and are sealed in such a way as to provide better smoke tightness than a fire damper. Such a damper may, like a fire damper, be activated by a thermal device, or may be set up to activate in the event that the fire alarm system is activated⁵⁴³.

2.3. A smoke control damper is similar to a fire and smoke damper, but does not operate automatically. It is connected to a smoke control system and designed to open or close, or indeed partially open, to control and trap the smoke or to move it out of the area, as required⁵⁴⁴.

3. In the early 1990s the typical type of damper which would be fitted would be a thermally activated fire damper of the shutter type⁵⁴⁵. BS 5588-9: 1989, Code of Practice for ventilation and air conditioning ductwork, which applied at the time when Rosepark was constructed discouraged the use of intumescent dampers, because the temperature of activation was about twice that of the shutter type of damper⁵⁴⁶. The Code of Practice also noted that “There are positive advantages in life safety terms in actuating fire dampers by smoke detectors in addition to thermally actuated devices, particularly in buildings presenting a high or special life hazard, such as hotels, hospitals and other non-domestic buildings involving a sleeping risk”⁵⁴⁷. Such dampers would close immediately on the smoke detector being activated and would accordingly close more quickly than the thermally activated devices.

4. The performance of a damper depends on the way that it is mounted and supported and restrained, and how it is sealed to the adjoining structure. The traditional metal shutter fire dampers require to be rigidly restrained. The normal way of doing this is by mounting the damper in a frame with metal lugs or straps which are

⁵⁴² Norman Macdonald, 20 July 2010, am, p. 14.

⁵⁴³ Norman Macdonald, 20 July 2010, am, pp. 7-8

⁵⁴⁴ Norman Macdonald, 20 July 2010, am, p. 12.

⁵⁴⁵ Norman Macdonald, 20 July 2010, am, pp. 11-12.

⁵⁴⁶ Norman Macdonald, 20 July 2010, am, pp. 16-19.

⁵⁴⁷ Para. 8.3; Norman Macdonald, 20 July 2010, am, p. 20

embedded in a masonry wall. It would have been possible to fit a damper to flexible ductwork passing through a mineral wool cavity barrier in a suspended ceiling (such as is seen in Pro 851C) but one would expect to see a heavy steel frame surrounding the damper on all four sides, with rigid hangers going up into the structural floor slab above. The frame would be fire protected to prevent excessive movement or collapse⁵⁴⁸.

5. It is important that dampers are fitted by someone who knows what he is doing⁵⁴⁹.

Maintenance of fire dampers

6. Fire dampers require to be maintained to make sure that the moving parts continue to work. Adequate maintenance would require periodic inspection of the dampers. Records should be kept of the maintenance. BS 5588-9:1989 recommended that fire dampers should be tested by competent persons on completion of the installation and at regular intervals not exceeding two years. Today the recommended period for a metal shutter type of fire damper would be 12 months⁵⁵⁰.

Description of the ventilation system at Rosepark

7. Rosepark was served by an extract ventilation system⁵⁵¹. In particular, corridors 3 and 4 were served by an extract ventilation system. That ventilation system comprised the following elements:

7.1. A run of circular ductwork of aluminium foil construction⁵⁵² ran within the suspended ceiling from a position in corridor 4 approximately opposite the door to room 14 along the length of corridor 4, through the partition above the corridor 3/4 fire door, along the length of corridor 3, through the wall of the central stairwell, and terminating at a vent in the domestics' cupboard. The

⁵⁴⁸ Norman Macdonald, 20 July 2010, am, p. 21-27.

⁵⁴⁹ Norman Macdonald, 20 July 2010, am, p. 37.

⁵⁵⁰ Pro 1593, p. 29; Norman Macdonald, 20 July 2010, am, pp. 28-36

⁵⁵¹ Stanley Wilson, 3 February 2010, am, pp. 7-8.

⁵⁵² Stanley Wilson, 3 February 2010, am, p. 8.

intended line of the ductwork was shown on the warranted drawings, in particular p. 4 of Pro 1106.

7.2. There were vents in the ceiling at various points along the length of the ductwork (both in corridor 3 and corridor 4) to allow air to be drawn from the corridors into the ductwork⁵⁵³. There was a vent in the ceiling of the central stairwell. This can be seen in Pro 332H⁵⁵⁴. There was also a vent in the domestics' cupboard.

7.3. There was a fan in the roofspace. This was connected by a riser to the ventilation ductwork in the suspended ceiling of corridors 3 and 4. The spur leading to the fan in the roofspace came off the corridor duct in the vicinity of room 17 (i.e. in corridor 4 but north of cupboard A2)⁵⁵⁵. The fan was manufactured by Vent-Axia⁵⁵⁶. The extract system vented to the atmosphere⁵⁵⁷.

7.4. Each of the cupboards, A2 and the linen cupboard, was connected to the ventilation system by a spur of ductwork. The vent into the spur of ductwork from cupboard A2 is shown in Pro 912N.

8. The ductwork was almost entirely a circular flexible ductwork⁵⁵⁸. This was not a type of ductwork which Mr. Brodie would have recommended for more than 1 metre lengths, because the potential resistance of such ductwork could compromise the ability of the system to achieve the intended specification⁵⁵⁹. The ductwork was of a flimsy type which would not have the same fire resistance as the cavity barriers and compartment walls⁵⁶⁰. The standard of installation was extremely poor⁵⁶¹.

⁵⁵³ Stuart Mortimore, 11 March 2010, am, pp. 68-72.

⁵⁵⁴ Stuart Mortimore, 17 March 2010, am, p. 48.

⁵⁵⁵ Stuart Mortimore, 17 March 2010, am, pp. 38-39, under reference to p. 4 of Pro 1106.

⁵⁵⁶ Stanley Wilson, 3 February 2010, am, p. 7.

⁵⁵⁷ Stanley Wilson, 3 February 2010, am, pp. 9-10.

⁵⁵⁸ Hamish Brodie, 16 December 2009, pm, p. 23.

⁵⁵⁹ Hamish Brodie, 16 December 2009, pm, pp. 23-25, 29-30.

⁵⁶⁰ Hamish Brodie, 16 December 2009, pm, pp. 25-26.

⁵⁶¹ Hamish Brodie, 16 December 2009, pm, pp. 29, 34-35

9. At the points where the ventilation ductwork passed through cavity barriers and compartment walls, the Building Regulations in force at the time of construction required, in order to maintain the fire integrity of the barrier:-

9.1. That a fire damper be fitted; and

9.2. That the penetration made in the cavity barrier or compartment wall be fire-stopped – i.e. that any gaps should be sealed with intumescent mastic to prevent the passage of fire⁵⁶².

10. The type of fire damper which would typically have been used at the time when Rosepark was constructed contained a metal shutter which would be held open by a fusible link but which would drop shut under the effect of gravity in the event that the fusible melted (which should occur at about 72 degrees Celsius). Such a damper would be contained within a metal frame which should be built into the structure of the building. Label 1316 is an example of such a damper⁵⁶³. If there were to be such a damper in place, the framework would be visible outside the ductwork⁵⁶⁴.

11. In the context of Rosepark, this meant that there should have been a fire damper and fire stopping inter alia at each of the following points:-

11.1. Where the ductwork penetrated the partition above the corridor ¾ firewall;
and

11.2. Where the ductwork penetrated the wall of the stairwell.

12. There were, in fact, no fire dampers fitted at Rosepark⁵⁶⁵. In, particular, there were no fire dampers at any of the cavity barriers in the suspended ceiling above corridors 3 and 4, at the partition above the corridor ¾ fire door, or at the wall

⁵⁶² Hamish Brodie, 16 December 2009, pm, pp. 17-18, 40-41,

⁵⁶³ Hamish Brodie, 16 December 2009, pm, pp. 14-17.

⁵⁶⁴ Hamish Brodie, 16 December 2009, pm, pp. 55-56.

⁵⁶⁵ Hamish Brodie, 16 December 2009, pm, pp. 55, 68; Stanley Wilson, 3 February 2010, am, p. 15.

between the central stairwell and corridor 3⁵⁶⁶. The penetrations where ductwork and other services passed through these barriers were not sealed⁵⁶⁷. It is plain from Pro 850F (which shows the partition above the corridor 3/4 fire door) that, although there is ventilation ductwork passing through the partition, there is no fire damper at that location and that there are gaps around the duct which would allow smoke to pass through⁵⁶⁸.

13. The quality of the workmanship in respect of the installation of the ventilation system was poor⁵⁶⁹.

14. The deficiencies mentioned in paras. 12 and 13 above were hidden from view above the suspended ceiling, but were obvious upon inspection of the system undertaken after the fire. They would equally have been obvious had an inspection specifically of the ventilation system been undertaken at an earlier stage in the life of the building by an appropriately skilled construction professional.

⁵⁶⁶ Hamish Brodie, 16 December 2009, pm, pp. 25-26, 30, 31-32, 35, 51-53; Stuart Mortimore, 11 March 2010, pm, p. 96.

⁵⁶⁷ Hamish Brodie, 16 December 2009, pm, pp. 32, 35; Stuart Mortimore, 11 March 2010, pm, p. 96.

⁵⁶⁸ Hamish Brodie, 16 December 2009, pm, pp. 51-54.

⁵⁶⁹ Alexander Ross, 27 January 2010, am, pp. 97-98.

CHAPTER 9: THE FIRE ALARM SYSTEM

Installation

1. Thomas Balmer engaged Comtec Systems Limited, a limited company of which Iain Fotheringham was the principal⁵⁷⁰, to install inter alia the fire alarm system and the nurse call system and to supply fire extinguishers and signage at Rosepark⁵⁷¹.

The original fire alarm panel

2. The fire alarm panel which was originally installed was a JSB panel of a type known as a Firedex 9000. Pro 976 and p. 4 of Pro 1515 showed examples of similar panels⁵⁷². Label 1509 is a similar type of panel⁵⁷³. The panel which was installed was a six zone panel⁵⁷⁴.

3. Although the basic principles of operation were the same, the layout of the indicators and controls on this panel were quite different from the layout of the indicators and controls on the panel which was in situ during the fire⁵⁷⁵.

3.1. At the left side of the panel was a key in a keyhole. This key could be turned to three positions. In the vertical position the key would point to the word “Normal”. A short turn to the right would take the key to the word “Silence” and a further turn towards the bottom right would point to the word “Evacuate”. Above the position “Silence” was a red button marked “Reset”.

3.2. There were no buttons equivalent to the control buttons on the fire incident panel. In order to silence the sounders one merely turned the key to the “Silence” position. In order to reset the panel, one would in addition (provided the key was in the “Silence” position) the key to “Silence”. In order to reset the

⁵⁷⁰ Iain Fotheringham, 18 January 2010, am, pp. 111-112.

⁵⁷¹ Iain Fotheringham, 15 January 2010, am, pp. 16-21.

⁵⁷² Iain Fotheringham, 15 January 2010, am, pp. 98-101.

⁵⁷³ George Muir, 20 January 2010, am, pp. 22-23.

⁵⁷⁴ Iain Fotheringham, 15 January 2010, am, pp. 102-105.

⁵⁷⁵ Julian Norris, 7 January 2010, am, p. 35.

system, one would in addition (provided the key was at the “Silence” position) need to press the “Reset” button⁵⁷⁶.

3.3. To the right of the key was a panel of indicator lamps. These were in two rows, a red row, containing the fire alarm indicators, and a yellow row, containing the fault indicators⁵⁷⁷. Below these rows were a pair of indicators, which were sounder circuit fault lights⁵⁷⁸, and beneath that a green mains indicator and an indicator which would illuminate if the alarms were silenced⁵⁷⁹.

3.4. To the right of the panel of indicator lamps was the zone card. One could accordingly read directly across from the indicator to the zone card to identify the zone which had activated⁵⁸⁰. Pro 180 was the zone card which had been in place from the first installation of the system⁵⁸¹. It was completed by Mr Fotheringham⁵⁸².

Zone information

4. The zone card in the panel was the only information provided at the panel about the zoning. Mr Fotheringham did not provide a zone plan when he installed the system at Rosepark⁵⁸³.

Signage

5. Comtec installed fire action signs at the premises. Pro 656 was a staff fire action notice of a sort which Comtec would have installed. The form of the notice would not have been discussed with the proprietor but would have been as required by the fire officer⁵⁸⁴.

⁵⁷⁶ Julian Norris, 7 January 2010, am, pp. 39-41.

⁵⁷⁷ Julian Norris, 7 January 2010, am, p. 36.

⁵⁷⁸ Julian Norris, 7 January 2010, am, pp. 37-38.

⁵⁷⁹ Julian Norris, 7 January 2010, am, pp. 36, 38.

⁵⁸⁰ Julian Norris, 7 January 2010, am, pp. 36-37.

⁵⁸¹ Thomas Balmer, 30 April 2010, am, p. 74.

⁵⁸² Thomas Balmer, 30 April 2010, am, p. 75.

⁵⁸³ Iain Fotheringham, 15 January 2010, pm, p. 31.

⁵⁸⁴ Iain Fotheringham, 15 January 2010, pm, pp. 90-95, 18 January 2010, am, p. 163.

Handover of the system

6. Following the installation of the system Mr Fotheringham carried out a handover to the customer. This included at least Mr Balmer, but might also have included Mrs Balmer, Matron and staff⁵⁸⁵. Mr Fotheringham's ordinary practice would have been to cover the following matters.

6.1. The operation of the fire alarm panel⁵⁸⁶, including:-

6.1.1.A demonstration of an alarm indicator and a fault indicator illuminating; and

6.1.2.The reset procedure. He would always make the point that the system should not be reset until the alarm had been investigated⁵⁸⁷.

6.2. That cross corridor fire doors should be closed at night⁵⁸⁸.

6.3. The requirements for a weekly test⁵⁸⁹.

6.4. The types of fire extinguisher and their uses⁵⁹⁰.

6.5. The signage and the location of fire exits⁵⁹¹.

6.6. The need to record all false alarms and advise Comtec about them⁵⁹².

7. Mr Fotheringham stated that fire procedures were not part of his briefing, but that if he were asked about it he would give an opinion⁵⁹³. He accepted that this was

⁵⁸⁵ Iain Fotheringham, 15 January 2010, am, pp. 127-129, 137, 18 January 2010, pm, pp. 8-9.

⁵⁸⁶ Iain Fotheringham, 15 January 2010, am, pp. 128, 148.

⁵⁸⁷ Iain Fotheringham, 16 January 2010, am, pp. 99-102.

⁵⁸⁸ Iain Fotheringham, 15 January 2010, am, p. 127.

⁵⁸⁹ Iain Fotheringham, 15 January 2010, am, pp. 144-145.

⁵⁹⁰ Iain Fotheringham, 15 January 2010, am, p. 145.

⁵⁹¹ Iain Fotheringham, 15 January 2010, am, p. 145.

⁵⁹² Iain Fotheringham, 15 January 2010, am, p. 166.

⁵⁹³ Iain Fotheringham, 16 January 2010, am, p. 86.

something he would probably have been asked about, and that this would probably have been covered by him⁵⁹⁴. His normal practice at the time would have been to tell the staff:-

7.1. To go to the panel and investigate what was showing on the panel.

7.2. If staff felt safe to do so, to check the area indicated on the panel. The panel indicated the general area in which a detector had been activated, and a red light on that particular detector would identify the actual detector which had been activated⁵⁹⁵.

7.3. If staff established that there was no fire, they could reset the alarm.

7.4. If there was a fire the next course of action would be to contact the Fire Brigade⁵⁹⁶.

8. Mr Fotheringham stated that at the time he would probably, even in relation to alarms during the night, have advised staff to investigate first and to make a decision based on what was found. He accepted that this was not prudent advice in relation to alarms during the night. Today he would always advise contacting the Fire Brigade immediately because of the reduced staff numbers⁵⁹⁷.

9. Mr Fotheringham recalled Mr McNeilly being present at the handover at Rosepark⁵⁹⁸. Mr McNeilly had no such recollection. I considered Mr McNeilly was a very careful witness who recorded all matters of importance. There is no written record of his being present at Rosepark at the time of the handover. I prefer Mr McNeilly's evidence on this point.

Maintenance of the fire alarm system

⁵⁹⁴ Iain Fotheringham, 15 January 2010, am, pp. 128-129; 18 January 2010, am, pp. 40, 86, pm, p. 9.

⁵⁹⁵ Iain Fotheringham, 15 January 2010, pm, pp. 22-24.

⁵⁹⁶ Iain Fotheringham, 15 January 2010, am, pp. 151-160.

⁵⁹⁷ Iain Fotheringham, 15 January 2010, am, pp. 159-164; 18 January 2010, am, pp. 35-40, 88-90.

⁵⁹⁸ Iain Fotheringham, 15 January 2010, pm, pp. 70-76.

10. In January 1993, Thomas Balmer, on behalf of Rosepark Nursing Home, entered into a five year contract with Comtec Systems Limited, for maintenance inter alia of the fire alarm system⁵⁹⁹. A further agreement with a five year term was entered into on 1 February 1999⁶⁰⁰. Although this had not been formally terminated at the time of the fire, neither party regarded it as still in force at that time⁶⁰¹.

11. Comtec Systems Limited undertook quarterly maintenance visits of the fire alarm system until March 2003⁶⁰². At each visit 25% of the smoke detectors were checked, so that in the course of a year each of the smoke detectors should have been checked. Amongst other checks, the door release mechanisms were also tested. At the time of the last visit in March 2003, everything was in working order⁶⁰³.

12. Comtec's last attendance at Rosepark was in May 2003 to deal with a fault on the internal key pad for the door entry⁶⁰⁴. By this time it had become apparent to Mr Fotheringham, the principal of Comtec, that Rosepark was engaging other contractors to carry out work on systems for which Comtec was responsible, something which was incompatible with the agreement⁶⁰⁵.

13. On 22 January 2004 Alan Balmer entered into a contract with George Muir for quarterly inspection visits at both Rosepark and Croftbank in relation to the fire alarm, emergency lighting, nurse call and CCTV systems⁶⁰⁶.

Testing the fire alarm system

14. The fire alarm system was tested every week. In the early days of the Home Thomas Balmer had done this himself, but after Mr Clark was taken on, Mr Balmer asked him to take on this task⁶⁰⁷. When Mr Clark carried out a test, he would go

⁵⁹⁹ Pro 215, p. 27; Iain Fotheringham, 15 January 2010, am, pp. 21-24.

⁶⁰⁰ Pro 215, p. 4; Iain Fotheringham, 15 January 2010, am, pp. 24-27.

⁶⁰¹ Iain Fotheringham, 15 January 2010, am, p. 26; Thomas Balmer, 30 April 2010, am, pp. 101-102.

⁶⁰² Iain Fotheringham, 15 January 2010, am, pp. 35-42, 138-139.

⁶⁰³ Iain Fotheringham, 15 January 2010, am, pp. 138-142.

⁶⁰⁴ Iain Fotheringham, 15 January 2010, am, pp. 43-47, 56-66.

⁶⁰⁵ Iain Fotheringham, 15 January 2010, am, pp. 33-34.

⁶⁰⁶ Pro 1, p. 23; George Muir, 18 January 2010, pm, pp. 53-55; Alan Balmer, 2 June 2010, pm, pp. 66-68.

⁶⁰⁷ Joseph Clark, 20 January 2010, pm, pp. 69-70; Sadie Meaney, 18 February 2010, am, pp. 114-115.

found and check that the fire doors had all automatically shut⁶⁰⁸. If he found that a door had not closed over properly, he would attend to this⁶⁰⁹. Very occasionally, there would be a problem, for example a hinge working loose, or the door catching on the flooring, which Mr Clark would attend to. These were very rare: Mr Clark recorded them in Pro 27⁶¹⁰.

Change of the fire alarm panel January 2004

15. When Croftbank Care Home was enlarged (which was in 2001), Mr Fotheringham replaced the existing panel at that Home for one with more zones. The panel which he replaced was Label 642. There was nothing wrong with the panel and he told the customer that they should hold onto it perhaps for some other project.
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16. In or about November 2002, Mr Fotheringham attended at Rosepark twice within a short period to deal with a problem with the control panel. The panel was bringing up a fault condition on the sounder card which produced a bleeping sound. Although Mr Fotheringham was able to deal with this problem on both occasions, on the second visit he told Thomas Balmer not to forget that he had the panel from Croftbank⁶¹². Although Mr Fotheringham did not replace the panel at Rosepark, there would have been no reason, if the panel from Croftbank were to be fitted at Rosepark, to believe that it would not work properly, assuming of course that it was properly tested on installation⁶¹³.

17. In January 2004 Alan Balmer mentioned to George Muir that the fire alarm panel had an ongoing fault to do with the fault buzzer and that it had already been agreed that the panel would be replaced. Mr Muir opened up the existing panel at Rosepark and created a fault. The fault light illuminated but the buzzer did not sound. The panel also looked fairly old. The natural course was to replace the panel. Alan Balmer supplied Mr Muir with the spare panel from Croftbank House. Mr Muir had a

⁶⁰⁸ Joseph Clark, 20 January 2010, pm, p. 76.

⁶⁰⁹ Joseph Clark, 20 January 2010, pm, p. 78.

⁶¹⁰ Joseph Clark, 20 January 2010, pm, pp. 83-91.

⁶¹¹ Iain Fotheringham, 15 January 2010, pm, pp. 41-44.

⁶¹² Iain Fotheringham, 15 January 2010, pm, pp. 37-48.

⁶¹³ Iain Fotheringham, 15 January 2010, pm, pp. 48-50.

look at it and it seemed suitable. Mr Muir collected the panel (Label 642) from Croftbank on 22 January, when he was there to sign the new maintenance contract. He took it to Rosepark on 27 January and fitted it in substitution for the original panel⁶¹⁴.

18. When he arrived at the building, Mr Muir spoke to Thomas Balmer and told him what he was going to do⁶¹⁵. Before removing the old panel, Mr Muir checked that the system was operational. When Mr Muir removed the old panel, he marked the cables to the zones one to six and when he fitted the new panel he fitted the appropriate cable to the relative terminals within the new panel. He reconnected the sounder circuits and the relays for the hold-open devices for the fire doors. He had to go to Port Dundas to get a second relay so that he could connect the release device for the main entrance. He did this and returned to Rosepark the same afternoon and fitted it⁶¹⁶

19. While Mr Muir was away picking up the relay, Thomas Balmer took the zone card from the old panel, laminated it and fixed it to the wall below the panel in the location seen in Pro 334C⁶¹⁷. Once Mr Muir had completed the installation, he spoke to Matron, who was in her office, and told her he had changed the control panel and that they were going to test the fire alarm system, that the sounders would ring and the doors would close and that she should inform the relevant staff⁶¹⁸. He tripped the break glass call point adjacent to the panel to test the system. The sounders operated (although only briefly), the fire doors closed and the front door unlocked. He checked the fire doors on the upper floor as far as the corner and they all closed as they should have done⁶¹⁹. Ms Meaney had no recollection of any alarm test⁶²⁰, but there is no good reason not to accept Mr Muir's evidence that he did carry out such a test: Ms Meaney told the inquiry that she had been dealing with a dying lady that day⁶²¹.

⁶¹⁴ George Muir 18 January 2010, pm, pp. 58-68; Alan Balmer, 2 June 2010, pm, pp. 60-66.

⁶¹⁵ George Muir, 20 January 2010, am, p. 5.

⁶¹⁶ George Muir, 18 January 2010, pm, pp. 68-78

⁶¹⁷ George Muir, 18 January 2010, pm, pp. 81-83; Thomas Balmer, 30 April 2010, am, p. 74; 6 May 2010, am, pp. 44-45.

⁶¹⁸ George Muir, 20 January 2010, pm, pp. 5-10.

⁶¹⁹ George Muir, 18 January 2010, pm, pp. 78-80, 84-85, 100-102; 20 January 2010, am, p. 41.

⁶²⁰ Sadie Meaney, 23 February 2010, pm, pp. 21-23.

⁶²¹ Sadie Meaney, 23 February 2010, pm, p. 17.

20. Thomas Balmer had been involved throughout the period that Mr Muir was there⁶²². Before the test, Mr Balmer had been chatting with Mr Muir about the job Mr Muir was doing. Mr Balmer remained in the reception area while Mr Muir carried out the tests⁶²³. After Mr Muir had tested the system he showed Mr Balmer in some detail how the new panel operated⁶²⁴. Ms Meaney was in the vicinity of the demonstration for part of the time, but, on Mr Muir's recollection, was involved in dealing with staff⁶²⁵ and on her own account, was called over as she was leaving the building⁶²⁶. Mr Muir did not explain the operation of the panel to her and she did not participate in the discussion which he had with Mr Balmer⁶²⁷. Mr Balmer told Ms Meaney that there was hardly any difference between the two panels⁶²⁸.

21. Mr Balmer's view at the time was that when the new panel was fitted it did not require any new training: "a panel is a panel"⁶²⁹. He took the view that it worked in basically the same way as the previous panel, inasmuch as it was operated with a key, and, if anything, was more user friendly⁶³⁰. He did not think that the new panel would cause confusion⁶³¹. Michael Gray, an Ergonomist (21 April 2010), took the view that the layout of the card was capable of causing confusion. I accept his evidence. In particular in the layout of the card the "ground floor" zones were situated on the lower part of the card. One interpretation, because of this was that the "ground floor" related to the lower floor. In fact Isobel Queen on the night of the fire was confused in this way. Mr Balmer did not have any discussion with Matron about providing training or awareness to staff about the new panel. He did not take any steps himself to secure that staff were made aware that the fire panel had been changed⁶³². So far as he knew, no training had been given to nightshift staff in relation to the panel and he did not know one way or the other whether Matron had made staff aware of the

⁶²² George Muir, 20 January 2010, am, p. 5.

⁶²³ George Muir, 18 January 2010, pm, pp. 79-81

⁶²⁴ George Muir, 18 January 2010, pm, pp. 85, 106; 20 January 2010, am, pp. 10-11, 17-18, 20-21.

⁶²⁵ George Muir, 18 January 2010, pm, pp. 105-108; 20 January 2010, am pp. 18-19.

⁶²⁶ Sadie Meaney, 23 February 2010, pm, pp. 24-25.

⁶²⁷ George Muir, 20 January 2010, am, pp. 3, 19, 25, 41-43.

⁶²⁸ Sadie Meaney, 23 February 2010, pm, pp. 20-21.

⁶²⁹ 6 May 2010, am, pp. 62-63.

⁶³⁰ Thomas Balmer, 6 May 2010, am, pp. 67-72, 78.

⁶³¹ Thomas Balmer, 6 May 2010, am, pp. 83-84

⁶³² Thomas Balmer 6 May 2010, am, pp. 64, 88-89

change⁶³³. Mr Balmer did not instruct Matron to make staff aware of the change or to arrange for any training in the operation of the new panel.

22. Mr Muir had not previously told Ms Meaney that the fire alarm panel was to be changed⁶³⁴. Although Ms Meaney stated that she had not known about this before that day, it is conceivable that Alan Balmer might have mentioned it to her the previous week when he told that Mr Muir was going to do some work to lights on the foyer⁶³⁵. There is evidence that Ms Meaney was aware that the panel was going to be changed when a fire drill was held on 21 January 2004⁶³⁶. However, I do not consider it is necessary for me to decide this issue. The fact of the matter is that Ms Meaney was not given any instructions to take any steps as far as the staff were concerned regarding the new fire alarm panel.

23. The job took half a day, between about 12.30 and 3.30 or 4 pm⁶³⁷.

Record keeping

24. Records were kept in relation to the fire alarm system as follows:

24.1. Mr Balmer had instructed Mr Clark to record the weekly fire alarm tests in Pro 27, the Fire Register and he did this. Mr Balmer also told him to carry out drills and record them in Pro 27. Mr Clark was not instructed to keep records of other matters to do with the fire alarm system⁶³⁸.

24.2. The paperwork relating to the maintenance work undertaken by Comtec was kept in a separate log, Pro 1.

The fire alarm system at the time of the fire

General

⁶³³ Thomas Balmer, 6 May 2010, am, pp. 86-88.

⁶³⁴ George Muir, 20 January 2010, am, pp. 47-48.

⁶³⁵ Sadie Meaney, 23 February 2010, pm, pp. 14-20.

⁶³⁶ Mhairi Sadiq.

⁶³⁷ George Muir, 18 January 2010, pm, pp. 95, 100-101.

⁶³⁸ Joseph Clark, 20 January 2010, pm, pp. 91-92.

1. The fire alarm system installed at Rosepark at the time of the fire was a type L1 system, which was the appropriate type of system for these premises⁶³⁹.
2. The system employed conventional technology⁶⁴⁰. Conventional technology employs a series of trigger devices (a combination of break glass call points and automatic detectors) which are installed in a number of radial circuits connected to a fire alarm panel and arranged in zones⁶⁴¹. This type of system does not identify at the fire alarm panel the individual device which has been activated, but only the zone in which that device is located⁶⁴². It contrasts with an addressable system, in which each individual device would be identified at the control panel when it activates⁶⁴³.
3. The fire alarm system installed at Rosepark did not send an automatic signal to an alarm receiving centre⁶⁴⁴. Summoning the fire brigade accordingly depended on action by staff at the home.

Alarm panel

4. Label 642 was the fire alarm panel which was in place at the time of the fire⁶⁴⁵. It was a six zone type FFP4/6 24 volt controller⁶⁴⁶. The panel was located on the wall next to the main entrance to the Home and opposite the door into the Rose Lounge at the location marked “IP” on Pro 1744⁶⁴⁷. The fire alarm panel is shown in situ in Pro 334C⁶⁴⁸.
5. The panel had the capacity to take six zones⁶⁴⁹. The zone indicator lamps were on the right side of the panel in horizontal rows. For each zone there was a fire

⁶³⁹ Julian Norris 7 January 2010, am, p. 93.

⁶⁴⁰ Julian Norris, 22 December 2009, pm, p. 9.

⁶⁴¹ Julian Norris, 22 December 2009, pm, pp. 9-10.

⁶⁴² Julian Norris, 22 December 2009, pm, p. 14.

⁶⁴³ Julian Norris, 22 December 2009, am, p. 84.

⁶⁴⁴ Julian Norris, 6 January 2010, pm, p. 31.

⁶⁴⁵ Iain Fotheringham, 15 January 2010, pm, pp. 45-47; Julian Norris, 6 January 2010, am, p. 19.

⁶⁴⁶ Julian Norris, 22 December 2009, pm, p. 38.

⁶⁴⁷ Julian Norris, 6 January 2010, am, p. 71.

⁶⁴⁸ Yvonne Carlyle, 27 November 2009, am, pp. 139-141; Julian Norris, 22 December 2009, pm, p.38, 6 January 2010, am, p. 19.

⁶⁴⁹ Julian Norris, 22 December 2009, pm, p. 39.

indicator lamp and a fault indicator lamp. The fire indicator lamps for zones 1 to 4 were in horizontal rows in the upper part of the panel, and those for zones 5 and 6 in a horizontal row beneath them⁶⁵⁰. If a smoke detector was activated the fire alarm indicator lamp for the zone in which that detector was located would flash⁶⁵¹. The word “Fire” was written above each fire indicator lamp. Beneath each fire indicator lamp was a white rectangle (which performed no function), above which was written the zone number to which the indicator lamp related⁶⁵². Beneath each white rectangle was another lamp, which would illuminate if there was a fault condition on the particular zone⁶⁵³. The word “fault” was written beneath each of these indicators⁶⁵⁴.

6. On the left hand side of the panel there were three features:-

6.1. At the far left there was a key in a keyhole. The key had two positions: vertical; and horizontal (to the right). Above the keyhole was the text “Normal state” and opposite the right hand position of the key was the text “Arm controls”. The “controls” referred to were the four white squares immediately next to the key. If the key was in the vertical position, the controls were disarmed but the remainder of the panel would function, to show faults and alarms. If the key was turned to the right, this allowed the four control buttons to be activated.

6.2. To the right of the key were the four control buttons. These comprised a vertical row of four white squares, each of which contained a push button, with associated text:-

6.2.1. The text next to the top button was “Reset/resound/test zone lamps”. If the key was in the upright position and this button was pressed, all the lamps on the panel should illuminate. This allowed a lamp test to be

⁶⁵⁰ Julian Norris, 22 December 2009, pm, p. 39, 6 January 2010, am, pp. 20-21.

⁶⁵¹ Julian Norris, 6 January 2010, am, p. 38.

⁶⁵² Julian Norris, 6 January 2010, am, pp. 21-22.

⁶⁵³ Julian Norris, 6 January 2010, am, pp. 22-23.

⁶⁵⁴ Julian Norris, 6 January 2010, am, p. 23.

undertaken, which would light up all the indicators on the panel⁶⁵⁵. This button was also the control for resetting the panel⁶⁵⁶.

6.2.2. The text next to the second button was “Silence alarm sounders”. If the sounders were ringing, these could be silenced by turning the key to the horizontal position and pressing this button. This would not reset the panel, so the fire condition would still be indicated by the relevant fire indicator lamps.

6.2.3. The text next to the third button was “Silence fault sounder”. When any of the fault or fire indicator lamps on the panel was activated, a buzzer internal to the panel was sounded. That buzzer could be silenced by pressing this button. The fire or fault alarm light would remain illuminated⁶⁵⁷.

6.2.4. The text next to the bottom button was “Evacuate”. That button could be pressed to cause the sounders throughout the building to ring even though no fire alarm condition was indicated⁶⁵⁸.

6.3. Between these push buttons and the indicator lamps for Zone 1, there were three further indicator lights, one above the other, with associated text:-

6.3.1. The top indicator would illuminate to indicate a fault on the sounder circuits. The word “sounder” was above this indicator and the word “fault” beneath it.

6.3.2. The middle indicator would illuminate if the mains or battery supply failed. The words “Battery/power supply” were above this indicator and the word “fault” beneath it.

⁶⁵⁵ Julian Norris, 6 January 2010, am, p. 26; Colin Todd, 29 July 2010, am, pp. 6-9.

⁶⁵⁶ Colin Todd, 26 July 2010, am, pp. 25-28.

⁶⁵⁷ Julian Norris, 6 January 2010, am, pp. 31-35.

⁶⁵⁸ Julian Norris, 6 January 2010, am, pp. 35-36

6.3.3. The bottom indicator would be illuminated if the power supply to the panel was on⁶⁵⁹.

7. The basic operating instructions were set out on the lower part of the face of the panel⁶⁶⁰. The left hand column read as follows⁶⁶¹:-

“INSTRUCTIONS

- NORMAL CONDITION. The green mains-on light is lit. The key switch is at normal.
- ALARM CONDITION. The alarm sounders operate and the red fire lights flash. Evacuate the building.
- TO SILENCE ALARM SOUNDERS. Turn the key switch to arm controls, then press the silence alarm sounders button. The lights will go steady and the fault sounder will sound. Do not press the reset/re-sound/test zone lamps button until you have identified the detector causing the alarm signal. When you have identified the cause of the alarm signal, press the reset/re-sound/test zone lamps button to re-arm the system. Pressing the button when the alarm still exists will re-sound the sounders.
- FAULT CONDITION. The fault sounder sounds and a yellow fault light comes on. Identify the fault light and check that the mains-on light is on and call the engineer.”

8. The right hand column read as follows⁶⁶²:-

“- To silence the fault sounder, turn the key switch to arm controls and press the silence fault sounder button.

NB. Some fault conditions are not silenceable.

- Turning the key switch to arm controls and pressing evacuate will always operate the alarm sounders.
- To test the fault sounder and the zone lamps, turn the key switch to arm controls and press the re-set/re-sound/test zone lamps button.

⁶⁵⁹ Julian Norris, 6 January 2010, am, pp. 23-25.

⁶⁶⁰ Julian Norris, 6 January 2010, am, pp. 57-58.

⁶⁶¹ Julian Norris, 6 January 2010, am, pp. 37-53

⁶⁶² Julian Norris, 6 January 2010, am, pp. 53-55

- For further information please read the instruction book.”

Zone card

9. Beneath the panel and to the right hand side, as shown in Pro 334C, was a card containing descriptions of the various zones. The card itself is Pro 180 and it can also be read in Pro 334G⁶⁶³. The card was laid out as follows:-

ZONE 7		
ZONE 6		ATTIC
ZONE 5	LOWER	ROOMS FROM CORNER
	GROUND	TO STAIRWELL
ZONE 4	LOWER	ROOMS FROM LIFT SHAFT
	GROUND	TO CORNER
ZONE 3	GROUND	ROOMS FROM CORNER
		TO STAIRWELL
ZONE 2	GROUND	ROOMS FROM LIFT SHAFT
		TO CORNER
ZONE 1	GROUND	KITCHEN/BOILER/ENTRANCE
		LOUNGE/DINER + ROOMS UP
		TO LIFT SHAFT
ZONE		ZONE LOCATION
CHARGER ON INDICATOR SHOULD SHOW CONTINUOUSLY		IF AMBER FAULT INDICATOR SHOWS OR BUZZER SOUNDS CONSULT ELECTRICIAN

10. Mr Fotheringham explained that the logic of the arrangement was that the zones were numbered from the location of the panel, with the zone closest to the fire alarm panel at the bottom of the card⁶⁶⁴.

⁶⁶³ Julian Norris, 22 December 2009, pm, p. 40-41.

11. There was no diagrammatic representation of the building showing the fire zones adjacent to the fire alarm panel⁶⁶⁵.

Detectors

12. Throughout the building there were: (a) break-glass call points; and (b) smoke detectors. Break-glass call points would require to be activated by human intervention. Smoke detectors would automatically transmit a signal to the alarm panel in the event that they were triggered.

13. All the smoke detectors were of the Series 30 type manufactured by Apollo Fire Detectors⁶⁶⁶. These were ionization detectors⁶⁶⁷. Each detector had a red LED which would illuminate if the detector had been activated⁶⁶⁸.

14. The plans on pages 46 and 47 of Pro 1155 identify the location of the smoke detectors and the zones to which each of the smoke detectors was wired⁶⁶⁹. In particular, the plan on the lower part of page 47 shows the smoke detectors which were installed on the upper floor and the zones to which they were actually wired. The detectors in the area marked in blue were wired to the light on the panel which was designated zone 3, the detectors in the area marked in pink were wired to the light that was designated zone 2, and the detectors in the area marked in yellow were wired to the light that was designated zone 1⁶⁷⁰. The plan on the lower part of page 46 shows the smoke detectors which were installed on the lower floor and the zones to which they were actually wired⁶⁷¹. Page 48 shows the location of detectors in the roofspace⁶⁷².

⁶⁶⁴ Iain Fotheringham, 15 January 2010, pm, pp. 27-28; 18 January 2010, pm, pp. 1-3.

⁶⁶⁵ Julian Norris, 22 December 2009, pm, pp. 45-46; cf para. 15.4.3 of BS 5839 of 1988 (Pro 1592): Julian Norris, 22 December 2009, am, pp. 117-120, 7 January 2010, am, pp. 52-57.

⁶⁶⁶ Julian Norris, 22 December 2009, pm, p. 43.

⁶⁶⁷ Julian Norris, 6 January 2010, am, p. 111.

⁶⁶⁸ Iain Fotheringham, 15 January 2010, pm, pp. 22-24.

⁶⁶⁹ Julian Norris, 22 December 2009, pm, pp. 29-31.

⁶⁷⁰ Julian Norris, 22 December 2009, pm, pp. 29-31.

⁶⁷¹ Julian Norris, 22 December 2009, pm, pp. 28-29.

⁶⁷² Julian Norris, 22 December 2009, pm, pp. 33-34.

15. All the detectors on the upper floor in the area of the building north of the central stairwell, with the exception of the detector in room 3 were wired to the Zone 1 lamp at the alarm panel⁶⁷³.

16. There were smoke detectors at the following locations on the upper floor, all of which were wired to the Zone 2 lamp at the alarm panel:-

- (a) rooms 7, 16 and 17 (which were in corridor 4) at ceiling level⁶⁷⁴;
- (b) all the detectors in corridor 3 (and the rooms off corridor 3) at ceiling level⁶⁷⁵;
- (c) in the ceiling of the central stairwell just outside the lift⁶⁷⁶;
- (d) in the domestics' cupboard next to the lift⁶⁷⁷;
- (e) room 3 (which was in corridor 1)⁶⁷⁸.

17. There were detectors at the following locations on the upper floor, all of which were wired to the Zone 3 lamp at the alarm panel:-

- (a) in rooms 8, 9, 10, 11, 12, 13, 14 and 15 at ceiling level⁶⁷⁹;
- (b) in the ceiling of cupboard A2⁶⁸⁰;
- (c) in the ceiling of the linen cupboard⁶⁸¹;

⁶⁷³ Julian Norris, 22 December 2009, pm, p. 63.

⁶⁷⁴ Julian Norris, 22 December 2009, pm, p. 55, 6 January 2010, am, p. 101.

⁶⁷⁵ Julian Norris, 22 December 2009, pm, p. 61, 6 January 2010, am, p. 101.

⁶⁷⁶ Julian Norris, 22 December 2009, pm, p. 61.

⁶⁷⁷ Julian Norris, 22 December 2009, pm, p. 61.

⁶⁷⁸ Julian Norris, 22 December 2009, pm, p. 62.

⁶⁷⁹ Julian Norris, 22 December 2009, pm, pp. 53, 6 January 2010, am, p. 101.

⁶⁸⁰ Julian Norris, 22 December 2009, pm, pp. 31, 32, 53, 6 January 2010, am, p. 101.

⁶⁸¹ Julian Norris, 22 December 2009, pm, pp. 31, 32, 53, 6 January 2010, am, p. 101.

- (d) in the corridor just outside room 17 near the corridor 3/4 fire door at ceiling level⁶⁸²;
- (e) in the corridor just outside the linen cupboard at ceiling level⁶⁸³;
- (f) in the corridor just outside room 10 at ceiling level⁶⁸⁴;
- (g) in the corridor just outside room 11 at ceiling level⁶⁸⁵;
- (h) in the south-west stairwell⁶⁸⁶.

18. The lower floor was divided into two zones. Zone 4 comprised: the detectors to the north of the corridor fire door (with the exception of a detector at ceiling height in the corridor just to the north of that fire door); and detectors in rooms 32 and 33. It included detectors in the central stairwell, one just outside the liftshaft and the other in the lift motor room. Zone 5 comprised all the other detectors in the area to the south of the corridor fire door and the detector at ceiling height just to the north of the fire door), including a detector in the cupboard at the bottom of the south-west stairwell⁶⁸⁷.

19. Zone 6 comprised the roofspace. It contained six detectors. Corresponding to each of those detectors was a remote indicator at an equivalent location on the ceiling of the floor below (the upper floor). Accordingly, if the alarm sounded, and the Zone 6 light was flashing at the alarm panel, staff could, by walking around the upper floor identify by reference to the remote indicators which of the attic alarms had been activated⁶⁸⁸.

20. The zone descriptions on the zone card contained ambiguities:-

⁶⁸² Julian Norris, 22 December 2009, pm, pp. 53-54, 60.

⁶⁸³ Julian Norris, 22 December 2009, pm, pp. 59-60, 6 January 2010, am, p. 101.

⁶⁸⁴ Julian Norris, 22 December 2009, pm, p. 61, 6 January 2010, am, p. 101.

⁶⁸⁵ Julian Norris, 22 December 2009, pm, p. 61, 6 January 2010, am, p. 101.

⁶⁸⁶ Julian Norris, 22 December 2009, pm, p. 55.

⁶⁸⁷ Julian Norris, 22 December 2009, pm, pp. 66-67.

⁶⁸⁸ Julian Norris, 6 January 2010, am, pp. 85-95.

20.1. Neither of the descriptions of zone 1 nor zone 2 appeared to include the liftshaft⁶⁸⁹. Likewise the description of zone 4 was ambiguous as to whether or not it included the liftshaft⁶⁹⁰.

20.2. Two zones (3 and 5) were described as “to stairwell”. There were two stairwells in the building. Further, it was unclear from the description whether either or both of these zones did or did not include the stairwell⁶⁹¹.

20.3. The area on the lower floor to the north of the central stairwell (apart from the boiler room which appeared to be referred to under Zone 1) did not appear to be covered by any of the descriptions⁶⁹².

21. There were apparent discrepancies between the way that the zones were described on the zone card and the way the detectors were in fact wired. This would be liable to lead to confusion⁶⁹³.

21.1. The actual boundary between Zone 2 and Zone 3 was not in fact at the corner, since Zone 3 included a detector just on the corridor 4 side of the corridor 3/4 fire door as well as the detectors in and just outside the cupboards⁶⁹⁴.

21.2. Room 3 was included in Zone 2 although it opened off corridor 1 and accordingly fell more naturally into the description of Zone 1⁶⁹⁵.

21.3. The boiler room appeared to be included in the description for Zone 1 (which otherwise related to areas the upper floor), whereas it was in fact wired to Zone 4 (which related to areas on the lower floor)⁶⁹⁶.

⁶⁸⁹ Julian Norris, 22 December 2009, pm, pp. 47-49; Thomas Balmer, 30 April 2010, am, pp 83, 84.

⁶⁹⁰ Iain Fotheringham, 15 January 2010, pm, p. 4.

⁶⁹¹ Julian Norris, 7 January 2010, am, p. 139; Iain Fotheringham, 15 January 2010, pm, pp. 2-3.

⁶⁹² Julian Norris, 22 December 2009, pm, p. 65; Iain Fotheringham, 15 January 2010, pm, p. 10.

⁶⁹³ Julian Norris, 7 January 2010, am, pp. 96-97.

⁶⁹⁴ Colin Todd, 26 July 2010, am, pp. 127-129.

⁶⁹⁵ Julian Norris, 22 December 2009, pm, pp. 62-63; Iain Fotheringham, 15 January 2010, pm, pp. 16-17; Colin Todd, 26 July 2010, am, pp. 129-130.

⁶⁹⁶ Julian Norris, 22 December 2009, pm, pp. 64-65; Thomas Balmer, 30 April 2010, am, p. 82.

21.4. Zone 4 included the areas to the north of the central stairwell on the lower floor which did not appear to be included in any of the zone descriptions on the card⁶⁹⁷.

21.5. The detectors as wired on the lower floor did not respect the “corner” as the division between Zones 4 and 5⁶⁹⁸.

22. The layout of the card – with the “ground floor” zones in the lower part of the card – was capable of causing confusion, particularly since the boiler was referred to in a zone which was on the “ground floor”⁶⁹⁹. In fact it did cause confusion on 31 January 2004 for Isobel Queen, causing her to advise Station Officer Campbell that the fire was downstairs at the lift area.

Sounders

23. Sounders were located throughout the building on two circuits connected back to the fire alarm panel⁷⁰⁰.

Ancillary devices

24. At Rosepark circuits were connected to the fire alarm panel to operate the following ancillary devices⁷⁰¹:-

24.1. Each of the firedoors, with the exception of those into the south-west stairwell, could be held open by a magnetic device. In the event of a fire alarm activation at the panel, the power to the circuit of the door magnets was de-energised, so that the doors would close⁷⁰².

24.2. In the event of a fire alarm, the main entrance door unlocked. If the sounders were silenced, the door would re-lock⁷⁰³.

⁶⁹⁷ Thomas Balmer, 30 April 2010, am, p. 87; Colin Todd, 26 July 2010, am, pp. 130-132.

⁶⁹⁸ Colin Todd, 26 July 2010, am, p. 132.

⁶⁹⁹ Iain Fotheringham, 18 January 2010, am, pp. 131-135.

⁷⁰⁰ Julian Norris, 22 December 2009, pm, p. 41.

⁷⁰¹ Julian Norris, 22 December 2009, pm, pp. 12-13.

⁷⁰² Julian Norris, 22 December 2009, pm, p. 42-43, 6 January 2010, pm, pp. 25-27

⁷⁰³ Julian Norris, 22 December 2009, pm, pp. 41-42, 6 January 2010, pm, pp. 28-31.

Silencing and resetting the system

25. In the operation of a fire alarm panel such as the one at Rosepark, there is a distinction between silencing and resetting the system. These are completely different activities⁷⁰⁴. If the system were to be silenced, the audible alarm would cease to sound, and the light signaling the activation of a detector in a particular zone would continue to be illuminated but would stop flashing⁷⁰⁵. Only if the system were to be reset, would the fire alarm indicator lamp also clear⁷⁰⁶.

26. The sounders could be silenced by turning the key to the horizontal and pressing the “Silence alarm sounders” button. This would leave the relevant fire alarm indicator light illuminated⁷⁰⁷ although it would stop flashing⁷⁰⁸. If a second detector in the same zone were then to be activated, the sounders would resound and the light would start flashing again⁷⁰⁹. If a detector in a second zone were then to be activated, the relevant fire alarm indicator lamp for that zone would start flashing⁷¹⁰. But if there was a fire which did not reach another detector, the sounders would remain silent⁷¹¹.

27. If the system were to be reset, the fire alarm indicator light would go out. If the detector or break glass call point had not been cleared of the condition which had caused the alarm, the system would merely re-engage and the sounders would re-sound⁷¹². However, if in the meantime, the cabling had become damaged, a fault indication would come up, and the fire alarm indicator would not re-illuminate. So, if smoke had spread into another zone where the cabling was undamaged, there would be a fire alarm indication in that zone but fault indications for the zone of origin⁷¹³.

⁷⁰⁴ Julian Norris, 6 January 2010, am, pp. 49-50; Colin Todd, 26 July 2010, pm, pp. 20-22.

⁷⁰⁵ Julian Norris, 6 January 2010, am, p. 104

⁷⁰⁶ Julian Norris, 22 December 2009, pm, pp. 15-17.

⁷⁰⁷ Julian Norris, 6 January 2010, am, pp. 29-31.

⁷⁰⁸ Julian Norris, 6 January 2010, am, p. 104.

⁷⁰⁹ Julian Norris, 6 January 2010, am, p. 104-5, 107-108.

⁷¹⁰ Julian Norris, 6 January 2010, am, pp. 30-31, 48-49, 105-108.

⁷¹¹ Julian Norris, 6 January 2010, am, p. 49.

⁷¹² Julian Norris, 6 January 2010, am, pp. 42, 50-51.

⁷¹³ Julian Norris, 7 January 2010, am, pp. 134-137, pm, p. 9.

28. Pressing the reset control would also cause a lamp test – causing all the lights on the panel to illuminate momentarily⁷¹⁴.

29. As a matter of good practice, the system should not be reset unless the cause had been identified and cleared⁷¹⁵. It would be acceptable for staff in a care home to silence the sounders provided they were confident that the message that there was an alarm had been communicated to staff⁷¹⁶.

State of the system following the fire

30. When the fire alarm panel was examined following the fire, all six zone lights were found to have been activated, the mains light was illuminated and the sounder light was on⁷¹⁷. Two zones had short-circuited, which would be consistent with detectors or cables in these zones having been damaged in the course of the fire or by fire-fighting activities. There was nothing else which would have indicated any malfunction at the panel⁷¹⁸.

31. The fire alarm system was subsequently examined in detail by Mr Norris. Nothing was found which suggested that the system would not have been functional⁷¹⁹. In particular:-

31.1. Tests undertaken following the fire indicated that the panel should have operated correctly and as intended in the event of a fire⁷²⁰ and that all of the alarm lights on the panel were functional⁷²¹. In particular, nothing in the tests which were carried out suggested that if a detector in Zone 3 were to be activated the panel would not have responded appropriately⁷²².

⁷¹⁴ Colin Todd, 26 July 2010, am, pp. 22-25

⁷¹⁵ Julian Norris, 6 January 2010, am, p. 43; Colin Todd, 26 July 2010, pm, p. 29.

⁷¹⁶ Colin Todd, 26 July 2010, pm, p. 30.

⁷¹⁷ Iain Fotheringham, 15 January 2010, pm, pp. 52-54.

⁷¹⁸ Iain Fotheringham, 15 January 2010, pm, pp. 54-61; 18 January 2010, am, pp. 193-196.

⁷¹⁹ Julian Norris, 6 January 2010, pm, p. 64.

⁷²⁰ Julian Norris, 6 January 2010, pm, pp. 32-33, 49.

⁷²¹ Julian Norris, 6 January 2010, pm, p. 48.

⁷²² Julian Norris, 6 January 2010, pm, p. 50.

31.2. All the smoke detectors which had not been melted due to fire damage were tested and all of them were found to be operating correctly⁷²³. The detector inside cupboard A2 (Label 498) was melted and could not be tested⁷²⁴ but it would be reasonable to infer that it, like the detectors which were tested, was working⁷²⁵.

31.3. Tests on the circuits for the internal fire doors indicated that these would have operated as expected⁷²⁶.

32. Zones 2 and 3 were badly fire-damaged⁷²⁷. Zones 1 and 4 were the only zones in which there was no damage to the fire alarm system cabling⁷²⁸. The cables for zones 2, 3 and 6 passed over cupboard A2. The cable for zone 2 was fire damaged at bedroom 18⁷²⁹. The cable for zone 5 was damaged between bedrooms 26 and 27 owing to the fire burning through the floor above⁷³⁰. Upon the cabling for a particular zone becoming fire damaged, a fault would have been indicated at the panel⁷³¹.

Fire fighting equipment

33. At various points throughout Rosepark, fire extinguishers were located – both water extinguishers and carbon dioxide extinguishers⁷³². The locations where extinguishers were found during Mr Norris' survey following the fire are shown on p. 52 of Pro 1155⁷³³. Although he found certain extinguishers to be missing from their designated locations it may be inferred that they were in position prior to the fire. On that basis, at the time of the fire, there were extinguishers inter alia at the following locations on the upper floor⁷³⁴.

⁷²³ Julian Norris, 22 December 2009, pm, pp. 44-45, 58-59, 6 January 2010, pm, p. 52.

⁷²⁴ Julian Norris, 6 January 2010, am, p. 96.

⁷²⁵ Julian Norris, 6 January 2010, pm, pp. 21-22.

⁷²⁶ Julian Norris, 6 January 2010, pm, p. 51.

⁷²⁷ Julian Norris, 6 January 2010, pm, p. 39.

⁷²⁸ Julian Norris, 6 January 2010, pm, pp. 46-48.

⁷²⁹ Julian Norris, 6 January 2010, pm, p. 53.

⁷³⁰ Julian Norris, 6 January 2010, pm, p. 59.

⁷³¹ Julian Norris, 6 January 2010, pm, pp. 43-44.

⁷³² Julian Norris, 6 January 2010, am, pp. 76-82.

⁷³³ Julian Norris, 6 January 2010, am, p. 79.

⁷³⁴ Julian Norris, 6 January 2010, am, pp. 80-82.

33.1 There was a water extinguisher in the passage to the external fire door next to the day room.

33.2 There was a water extinguisher and a carbon dioxide extinguisher in the central stairwell.

33.3 There was a water extinguisher outside the bathroom on the corridor 3 side of the corridor 3/4 fire door.

33.4 There was a water extinguisher and a carbon dioxide extinguisher outside bedroom 14 at the south west end of corridor 4.

34. Accordingly, a member of staff going down the corridor from the foyer to attend to a fire alarm in zone 3 would be able to pick up detectors on the way to that area.

Nurse call system

35. Each resident had a buzzer by his or her bed, conveniently located on a lead, which he or she could press for attention⁷³⁵. The buzzers sounded at various places throughout the Home⁷³⁶. They could be heard by staff throughout the building⁷³⁷. There were panels at various places in the Home which identified the room number of the buzzer being sounded⁷³⁸. One such panel was outside matron's office⁷³⁹.

36. In addition, in four rooms, there was a movement detection system, linked to the nurse call system, which was designed to warn staff if the residents of those rooms moved from their beds. Two of these were upstairs and two downstairs (one in room 28). These had been installed by George Muir in December 2003 and January 2004⁷⁴⁰.

⁷³⁵ Allison Cumming, 19 November 2009, am, pp. 40-41.

⁷³⁶ Allison Cumming, 19 November 2009, am, pp. 41-42.

⁷³⁷ Yvonne Carlyle, 27 November 2009, am, p. 11.

⁷³⁸ Yvonne Carlyle, 27 November 2009, am, pp. 11-12.

⁷³⁹ Yvonne Carlyle, 27 November 2009, am, pp. 69.

⁷⁴⁰ George Muir, 18 January 2010, pm, pp. 42-49, 52.

Note to Chapter 9

I have made certain amendments to the findings under this head on the basis of submissions on behalf of SF&R and the Matron.

CHAPTER 10: THE WASHING MACHINES

General

1. At the time of the fire, there were three washing machines side by side in the laundry. These may be seen in Production 885G⁷⁴¹. The left hand machine was a white top-loading machine⁷⁴². The middle machine, yellow in colour, was a Nyborg Minett unit (“the Minett”). The right hand machine, red in colour, was a Nyborg 903 (“the 903”)⁷⁴³. For present purposes, it is only the Minett and the 903 which require to be considered further.

2. The 903 and the Minett were supplied with electrical power from separate switches, which were mounted side by side on the side wall of a ventilation shaft which ran vertically from the floor to the ceiling within the laundry⁷⁴⁴. These switches may be seen in Production 885H⁷⁴⁵ and, in close up, in Production 857A. These switches were supplied with power from the distribution board in cupboard A2 through a cable, designated cable V⁷⁴⁶.

3. When the Home opened there were only two washing machines – a top loader and a sluice machine on a plinth - in the general location of the washing machines shown in photograph 885G⁷⁴⁷. The Minett was installed by Duncan McRae, a washing machine engineer with William Wilkie & Company Ltd, in December 1996 as a replacement for another machine⁷⁴⁸. The 903 was acquired secondhand by Thomas Balmer as an additional machine⁷⁴⁹. The 903 was in place by August 1998, when Mr McRae carried out a repair on the 903⁷⁵⁰.

⁷⁴¹ Linda Anderson, 10 March 2010, pm, pp. 33-34; John Madden, 29 March 2010, pm, p. 2.

⁷⁴² Linda Anderson, 10 March 2010, pm, p. 34.

⁷⁴³ John Madden, 29 March 2010, am, pp. 98-99.

⁷⁴⁴ John Madden, 29 March 2010, am, p. 99.

⁷⁴⁵ Stuart Mortimore, 11 March 2010, pm, p. 26.

⁷⁴⁶ See, for further detail on the power supply to the washing machines, Chapter 11, paras. 31 ff.

⁷⁴⁷ Thomas Balmer, 4 May 2010, am, p. 2/

⁷⁴⁸ Duncan McRae, 26 January 2010, am, pp. 90-95; Thomas Balmer, 4 May 2010, am, p. 6.

⁷⁴⁹ Joseph Clark, 20 January 2010, am, pp.131-132, 149; Thomas Balmer, 4 May 2010, am, pp. 7-8.

⁷⁵⁰ Duncan McRae, 26 January 2010, am, pp. 139-142.

4. Following the installation of the 903, Mr. McRae was called out to re-bolt it to the plinth⁷⁵¹. The electrical and plumbing installation had already been carried out when Mr. McRae attended to carry out this work. Mr. McRae had to disconnect the drain, but not the electrical connection⁷⁵². Mr. McRae noticed that there was now a second switch – namely, the left hand switch seen in Production 857A⁷⁵³. He noticed that the two switches were connected together to the one supply and that the 903 was supplied by a fixed twin and earth cable⁷⁵⁴. The reasonable inference is that this switch was installed for the purposes of the 903.

5. Mr. McRae took the view that the rating of the electrical supply was insufficient for both machines – so that, if both machines were connected on full power, it would trip the breaker⁷⁵⁵. Mr. McRae accordingly disconnected one of the heating elements on the Minett in order to bring the current down under 32 amps⁷⁵⁶. He raised the question of the adequacy of the electrical supply with Joe Clark. He told him that he had derated the machine and that he should have the matter checked by an electrician⁷⁵⁷. Mr. Clark said it was possible that Mr. McRae had said such a thing to him, but that if he did, he would pass it on to Mr. Balmer⁷⁵⁸. This rang no bells with Mr. Balmer⁷⁵⁹.

6. Mr. McRae subsequently visited Rosepark on a number of occasions to carry out various pieces of work in relation to equipment in the laundry. He undertook a repair to the 903 in August 1998, a repair on the Minett in November 1998, a repair to another machine in September 1999. He was also called out to carry out repairs on a casual basis⁷⁶⁰. He did not again raise any concern about the electrical power supply and its adequacy. He assumed that this would have been attended to⁷⁶¹.

⁷⁵¹ Duncan McRae, 26 January 2010, am, pp. 98-103; the 903 was found following the fire to be bolted to the plinth: John Madden, 29 March 2010, pm, pp. 15-16.

⁷⁵² Duncan McRae, 26 January 2010, am, p. 103, pm, p. 15.

⁷⁵³ Duncan McRae, 26 January 2010, am, pp. 103-104.

⁷⁵⁴ Duncan McRae, 26 January 2010, am, pp. 104-107.

⁷⁵⁵ Duncan McRae, 26 January 2010, am, p. 153.

⁷⁵⁶ Duncan McRae, 26 January 2010, am, pp. 104-115.

⁷⁵⁷ Duncan McRae, 26 January 2010, am, pp. 115, 124-125, 153-154.

⁷⁵⁸ Joseph Clark, 20 January 2010, am, p. 154.

⁷⁵⁹ Thomas Balmer, 4 May 2010, am, pp. 17-18.

⁷⁶⁰ Duncan McRae, 26 January 2010, am, pp. 137-147

⁷⁶¹ Duncan McRae, 26 January 2010, am, pp. 147-149, 155-157, pm, pp. 8-9.

Washing machine settings

7. Each washing machine could be run at a number of different temperatures.
 - 7.1. The Minett had normal settings at 30 degrees, 40 degrees, 60 degrees and 95 degrees, a wool setting which ran at about 30-40 degrees, and a permanent press setting⁷⁶². The 30 degree setting drew in cold water only. For the other settings, the machine drew in a mixture of hot and cold water at 35 degrees, which was then heated within the machine to the appropriate temperature for the setting⁷⁶³.
 - 7.2. The 903 had normal settings at 30 degrees, 40 degrees, 60 degrees and 95 degrees, a wool setting at 40 degrees and permanent press settings at 40, 60 and 95 degrees. This machine drew in cold water only, which was then heated within the machine to the appropriate temperature for the setting⁷⁶⁴.
8. The Minett washing machine had two heating elements. At the time of the fire one of the heating elements had an open circuit fault on it and would accordingly neither draw current nor contribute to heating the water in the machine⁷⁶⁵. The 903 had a single heating element. During any particular wash cycle, the heating element would go on as required in order to heat water to the set temperature⁷⁶⁶.
9. The two main electrical loads in each washing machine were: (a) the motor which rotated the drum; and (b) the heating elements. The current drawn by the heating elements was significantly greater than the current drawn by the motor⁷⁶⁷. When the working heating element of the Minett was on, the machine drew a constant current of about 9.5 amps, with a peak value, including the motor current, of 10.3 amps⁷⁶⁸. If both heating elements of the Minett were working, the machine would

⁷⁶² Alan Hazlehurst, 27 April 2010, am, pp. 39-41.

⁷⁶³ Alan Hazlehurst, 27 April 2010, am, pp. 41-44.

⁷⁶⁴ Alan Hazlehurst, 27 April 2010, am, pp. 44-47.

⁷⁶⁵ John Madden, 29 March 2010, pm, pp. 44-45.

⁷⁶⁶ John Madden, 29 March 2010, pm, pp. 5-6; Alan Hazlehurst, 27 April 2010, am, pp. 41-42.

⁷⁶⁷ John Madden, 29 March 2010, pm, p. 6.

⁷⁶⁸ John Madden, 29 March 2010, pm, pp. 28-29.

have drawn a constant current with a peak value of 19.8 amps⁷⁶⁹. When the heating element of the 903 was on, the machine drew a constant current of about 19 amps with a peak value, including the motor current, of 20.8 amps⁷⁷⁰.

10. The length of the period during which the heating element would be on in any cycle would depend on the setting of the machine.

10.1. The 903.

10.1.1. On the 40 degree setting (and with only cold water being drawn into the machine), the heating element of the 903 would come on about eight minutes into the wash cycle for 3.8 minutes, would then go off, and would come on again about 20 minutes into the wash cycle for 7.94 minutes⁷⁷¹.

10.1.2. On the 60 degree setting, the heating element of the 903 would require to be on for some 16 minutes in all, if only cold water were drawn into the system, and for some 10 minutes in all if a mixture of hot and cold water were drawn into the system⁷⁷².

10.1.3. On the 95 degree setting the heating element of the 903 would require to be on for some 27 minutes in all if only cold water were drawn into the machine, and for some 20 minutes in all if a mixture of hot and cold water were drawn into the system⁷⁷³.

10.1.4. On the 30 degree setting, and assuming that only cold water was drawn into the machine, the heating element would require to be on for a shorter period than for the 40 degree setting⁷⁷⁴.

10.2. The Minett

⁷⁶⁹ John Madden, 29 March 2010, pm, p. 49.

⁷⁷⁰ John Madden, 29 March 2010, pm, pp. 6-12.

⁷⁷¹ John Madden, 29 March 2010, pm, pp. 9-12.

⁷⁷² John Madden, 29 March 2010, pm, pp. 23-24.

⁷⁷³ John Madden, 29 March 2010, pm, pp. 24-25.

⁷⁷⁴ John Madden, 29 March 2010, pm, pp. 25-26.

10.2.1. On the 40 degree setting, and assuming that only cold water was drawn into the machine, with the single heating element which was in operation at the time of the fire working, that heating element would come on some 3 minutes into the cycle, remain on for some 14.6 minutes, and then switch off for the remainder of the cycle⁷⁷⁵.

10.2.2. On the 60 degree setting, with the single heating element which was in operation at the time of the fire working, that heating element would be on for some 34 minutes if only cold water was drawn into the machine, and for some 20 minutes, if both hot and cold water were drawn into the machine⁷⁷⁶.

10.2.3. On the 90 degree setting, with the single heating element which was in operation at the time of the fire working, that heating element would be on for some 53 minutes if only cold water was drawn into the machine, and for some 40 minutes if both hot and cold water were drawn into the machine⁷⁷⁷.

10.2.4. If both heating elements were working, these times would be half as long⁷⁷⁸.

10.3. These various times could vary depending on the starting temperature of the feeds and, if both hot and cold water were drawn into the machine, the relative rates of the two feeds⁷⁷⁹.

11. When the heating elements of both machines happened to be on at the same time, the current drawn through cable V would be the sum of the currents drawn by each machine when its heating element was on. During any period when the heating elements of both machines happened to be on at the same time, the total current drawn

⁷⁷⁵ John Madden, 29 March 2010, pm, pp. 27-29.

⁷⁷⁶ John Madden, 29 March 2010, pm, pp. 29-31.

⁷⁷⁷ John Madden, 29 March 2010, pm, p. 32.

⁷⁷⁸ John Madden, 29 March 2010, pm, pp. 49-50.

⁷⁷⁹ John Madden, 29 March 2010, pm, pp. 22-23.

by the two machines would accordingly have had a peak value, when only one of the Minett's heating elements was working, of 31.1 amps⁷⁸⁰, and if both of the Minett's heating elements were working, of 40.6 amps⁷⁸¹.

The use of the washing machines

12. The nature and duration of the use of these washing machines (or indeed the machines which they replaced) over the lifetime of the Home cannot be assessed with any precision. The machines were in frequent use, on a variety of settings. There was evidence that, in the period before the fire, the bulk of the laundry was done daily between 7 am and 3.30 pm and: (a) that during that shift both the 903 and the Minett would typically be in virtually constant use⁷⁸²; (b) that the 903 would typically be run on the 40 degree setting, although the 60 degree setting was also used; and (c) the Minett would typically be run on the 50 degree setting, although from time to time the 60 or 95 degree setting would be used⁷⁸³. There was also evidence that laundry was also routinely done on the backshift⁷⁸⁴. At that time, a load of dishtowels would usually be done in the Minett, and a mixture of sheets and towels might also be done in the 903⁷⁸⁵. There was evidence of both 40 and 60 degree settings being used⁷⁸⁶.

Note to Chapter 10

Submissions on behalf of Alexander Ross in respect of paragraph 13 have been incorporated into a new paragraph 12.

⁷⁸⁰ John Madden, 29 March 2010, pm, pp. 33-34.

⁷⁸¹ John Madden, 29 March 2010, pm, pp. 49-51.

⁷⁸² Linda Anderson, 10 March 2010, pm, p. 36.

⁷⁸³ Linda Anderson, 10 March 2010, pm, pp. 36-47.

⁷⁸⁴ Tracey Farrer, 24 November 2009, am, pp. 121, 125-126; Sheila Lees, 18 March 2010, pm, pp. 56, 58.

⁷⁸⁵ Tracey Farrer, 24 November 2009, am, pp. 128-129; Sheila Lees, 18 March 2010, pm, pp. 57-58.

⁷⁸⁶ Tracey Farrer, 24 November 2009, am, pp. 135-136; Sheila Lees, 18 March 2010, pm, pp. 58-59.

CHAPTER 11: THE ELECTRICAL INSTALLATION

General considerations

1 In a typical electrical installation, electrical power is supplied to premises through a fused cut-out and a meter before reaching a consumer unit or distribution board. From the distribution board power is supplied through individual circuits to the various locations and appliances where power is required within the premises. When the circuit is complete, current flows around the circuit to the point of load in the live wire, which is energized at 230 volts. From the point of load, the current flows back down the neutral wire, which is typically at about zero volts, to the point of supply⁷⁸⁷. The live and neutral wires are, in fact, both contained within a single cable, normally sheathed in PVC⁷⁸⁸.

2. For electrical current to flow, there must be a closed circuit. If the circuit is interrupted, current will not flow. A switch is a means of interrupting a circuit. If a switch is opened, the live wire on the supply side of the switch will still be energized at 230 volts, and everything on the output side of the switch will be at zero volts, but there will be flow of current. If the switch is closed, the current will flow round the circuit⁷⁸⁹.

3. A cable will only carry a certain amount of current before it heats up to the point at which it might be damaged. Cables are accordingly rated at a maximum current carrying capacity⁷⁹⁰. The current carrying capacity of a cable is determined predominantly by the type of conductor, the cross-sectional area of the conductor, the type of insulation covering the conductors and the location of the cable⁷⁹¹.

4. Any circuit should also be protected by a fuse or circuit breaker, which is designed to protect the cable from over-current. A circuit breaker is rated at a

⁷⁸⁷ John Madden, 22 March 2010, pm, pp. 32-36.

⁷⁸⁸ John Madden, 22 March 2010, pm, pp. 38-39.

⁷⁸⁹ John Madden, 22 March 2010, pm, pp. 36-38.

⁷⁹⁰ John Madden, 22 March 2010, pm, pp. 39-40.

⁷⁹¹ John Madden, 29 March 2010, am, p. 26.

particular value of current. When the current flowing through the circuit breaker exceeds the rated value, the circuit breaker will trip to the off position, interrupting the circuit. The speed with which a circuit breaker trips depends on the magnitude of the current flowing through it in excess of its rated value⁷⁹². For example, a 50 amp circuit breaker exposed to a current of 51 amps would take days to trip. Exposed to 60 amps it would take hours to trip. Exposed to 200 amps it would take around 5 seconds to trip⁷⁹³.

5. The purpose of a circuit breaker is to protect the circuit from excess flow of current where that can lead to danger. Typically, the rating of the circuit breaker will be set below the maximum current carrying capacity of the cable. If the circuit breaker were to be rated higher than the cable, one could have a current flowing through the cable which would expose the cable to excessive heat but which did not trip the circuit breaker. Equally, however, one would not choose a circuit breaker rated at a value less than the current drawn by the load because the circuit breaker would keep tripping when the appliance supplied by the circuit was in use⁷⁹⁴.

6. For safety reasons, metal equipment should be connected to earth. The function of the earth connection is to ensure that under fault conditions, exposed metalwork does not become live at a hazardous voltage. If, for example, a live wire should come into contact with the exposed metalwork (an “earth fault”), the current should flow through the earth wire as well as the neutral wire, to form an earth fault circuit. The electrical resistance in this circuit should be very low, so that, in the event of an earth fault, a current well in excess of the rated value of the circuit breaker will be drawn through the circuit, causing the circuit breaker to trip extremely quickly⁷⁹⁵.

7. It follows that, in earth fault conditions: (a) current flow from the live wire into the earth wire through the metalwork of the appliance at the location of the fault; and (b) the current drawn through the circuit will increase dramatically⁷⁹⁶.

⁷⁹² John Madden, 22 March 2010, pm, pp. 40-41, 44-45.

⁷⁹³ John Madden, 31 March 2010, am, pp. 32-33.

⁷⁹⁴ John Madden, 22 March 2010, pm, pp. 41-42.

⁷⁹⁵ John Madden, 22 March 2010, pm, pp. 45-54.

⁷⁹⁶ John Madden, 22 March 2010, pm, pp. 53-55.

Electrical distribution systems as potential sources of ignition

8. Electrical distribution systems are capable of causing fire⁷⁹⁷. Many fires are started by electrical faults, although the percentage of such faults which lead to fires is very low⁷⁹⁸.

9. The following mechanisms were identified by Mr Madden:-

9.1 If a conductor, such as the wires in a cable, carries excessive current, the current may heat the conductor to the extent that the insulation melts and creates the conditions for fire. The excess current can be caused by faults in the circuit, such as short circuit or earth faults, or by overload. Overload could be caused, for example, by an electric motor stalling, or because the number and nature of the appliances drawing current through that conductor is excessive⁷⁹⁹. Electric cables are rated according to their current carrying capacity: the amount which the cable can carry without overheating.

9.2 Hotspots in electrical systems can be created by, for example, loose or poorly made joints and by contaminated or dirty contacts and devices such as circuit breakers and switches. These introduce electrical resistance in the circuits that will generate heat when current is passed. The surfaces of materials may become hot enough to cause ignition of combustible materials and consequential fire⁸⁰⁰.

9.3 Insulation failure on cables and components can cause current to flow between a live conductor and a conductor that is either a neutral conductor or one that is earthed, or between live conductors at different voltages. This can give rise to fire in two ways: (1) it can create localized heating which may lead to fire; and (2) it can lead to the generation of an arc.

⁷⁹⁷ John Madden, 29 March 2010, am, pp. 9-26.

⁷⁹⁸ Stuart Mortimore, 16 March 2010, am, p. 84.

⁷⁹⁹ John Madden, 29 March 2010, am, pp. 11-12, 24-26.

⁸⁰⁰ John Madden, 29 March 2010, am, pp. 10-11, 19-21.

10. Arcing is the flow of electricity through air⁸⁰¹. Air is normally a good insulator. However, in certain circumstances the molecules in the air may become ionized to the extent that current can flow⁸⁰². In particular, an arc may be generated if an earth fault occurs, generating significant current flow. Although any circuit breaker should trip in response to the overcurrent, this may not occur quickly enough to prevent an arc occurring⁸⁰³. An arc will generate heat, typically of the order of 2000 degrees or so⁸⁰⁴. Some of the material of the conductors will vaporize. In addition, molten globules of metal (“spatter”) may be expelled violently from the point at which the arcing occurs⁸⁰⁵. These molten globules will have the visual appearance of sparks⁸⁰⁶. The temperatures generated by the arc may ignite combustible materials in the vicinity⁸⁰⁷. If the spatter has sufficient energy and falls on a suitable combustible material, a fire may be started where the globules fall. Equally, if the sparks pass through a combustible gas in air mixture, they may ignite that mixture⁸⁰⁸.

Minimising the risk

11. In the ordinary design and installation of electrical systems, steps should be taken to minimize these risks. These steps include the following:-

11.1 Anyone designing an electrical installation should identify the amount of current which is going to be drawn by the load on a particular circuit, and select a cable of the correct rating to carry that current safely⁸⁰⁹.

11.2 Cables should be protected by an over-current device such as a fuse or circuit breaker which will operate to interrupt the current when it reaches at a particular value. The fuse or circuit breaker should be rated to operate at a current lower than the current carrying capacity of the cable but higher than the

⁸⁰¹ John Madden, 29 March 2010, am, pp. 8-9.

⁸⁰² John Madden, 29 March 2010, am, pp. 8-9; 30 March 2010, am, p. 56-57.

⁸⁰³ John Madden, 30 March 2010, am, p. 32.

⁸⁰⁴ Stuart Mortimore, 11 March 2010, am, p. 107.

⁸⁰⁵ Stephen Joel, 10 March 2010, am, pp. 41-42, 51-55; Stuart Mortimore, 11 March 2010, am, pp. 107-108.

⁸⁰⁶ Stuart Mortimore, 15 March 2010, am, pp. 73-76.

⁸⁰⁷ Stuart Mortimore, 16 March 2010, am, p. 32; John Madden 29 March 2010, am, pp. 14, 22.

⁸⁰⁸ Stuart Mortimore, 11 March 2010, am, pp. 107-108; John Madden, 29 March 2010, am, pp. 14-15..

⁸⁰⁹ John Madden, 22 March 2010, pm, pp. 39-40.

load current drawn by the equipment served by the cable (to avoid constant tripping of the fuse or circuit breaker)⁸¹⁰.

11.3 Conductors, particularly live conductors, should be insulated in a manner suitable to the environment in which they are being used⁸¹¹.

11.4 Electrical installations should be routinely inspected and tested: (a) in order to detect deterioration which might lead to fire⁸¹²; and (b) to make sure that the earth connections are sound and that the earth circuits are of very low resistance⁸¹³.

12. Detailed recommendations in relation to these matters are set out the IEE Wiring Regulations, now incorporated in British Standard 7671⁸¹⁴. These have no formal statutory force. However, compliance with this Standard is regarded by the Health and Safety Executive as a means whereby duty-holders may comply with their statutory responsibilities under the Electricity at Work Regulations⁸¹⁵.

13. The edition of the IEE Wiring Regulations applicable at the time of construction of Rosepark was the 15th edition, 1981, incorporating amendments up to and including June 1987⁸¹⁶. These were superseded by the 16th edition, issued on 10 May 1991, with effect from 1 January 1993⁸¹⁷. Amendments were made to this as follows: Amendment 1 (with effect from 1 July 1995); Amendment 2 (with effect from 1 July 1998); and Amendment 3 (with effect from 1 January 2002). The 16th edition was superseded by BS 7671: 2001 which was issued on 1 June 2001, and came into effect on 1 January 2002. The 2001 Standard was amended by Amendment 1 which came into effect on 1 February 2002, and was in force in that form at the time of the fire⁸¹⁸.

⁸¹⁰ John Madden, 29 March 2010, am, pp. 40-42.

⁸¹¹ John Madden, 29 March 2010, am, pp. 40-42.

⁸¹² John Madden, 29 March 2010, am, p. 43.

⁸¹³ John Madden, 22 March 2010, pm, pp. 54-55.

⁸¹⁴ John Madden, 29 March 2010, am, pp. 26-27.

⁸¹⁵ John Madden, 29 March 2010, am, pp. 33-34, 38.

⁸¹⁶ John Madden, 29 March 2010, am, pp. 28-29.

⁸¹⁷ John Madden, 29 March 2010, am, p. 29.

⁸¹⁸ John Madden, 29 March 2010, am, pp. 27-32.

The electrical distribution system at Rosepark at the time of the fire

Mains supply and its distribution throughout the building

14. Rosepark Care Home had a three phase 400 volt electricity supply with combined neutral and earth. This was supplied to the Home through a 100 amp three phase fused cut-out belonging to Scottish Power. Power was distributed through the power company's meter to a MEM fuse board located in the electrical cupboard in the foyer of the Home. The electrical cupboard is shown in production 334D. From the fuse board, the electrical supply was distributed at 230 volts to the lift and to three distribution boards. One of the distribution boards was located in the electrical cupboard in the foyer and is shown on production 334K. Another was located in cupboard A2 on the upper floor and is shown in production 873A. The third was located in the equivalent cupboard on the lower floor and is shown in production 880A. There were fuses for the supply to the distribution boards and the lift at the fuse board in the electrical cupboard⁸¹⁹.

The distribution board in cupboard A2

15. The electrical distribution board in cupboard A2 was a Memera 2000 type, manufactured by MEM⁸²⁰. Production 873A is a photograph of the board in situ. Production 1024E is an external photograph of a MEM distribution board of the same type. Production 1024A is a photograph of the same distribution board wired up generally in the same fashion as the distribution board which was in cupboard A2⁸²¹.

16. The distribution board (Label 1493) was a pressed metal box⁸²² 292 mm wide by 366 mm high by 84 mm deep⁸²³. It had a sheet steel front cover (Label 1494) which

⁸¹⁹ Stuart Mortimore, 10 March 2010, pm, pp. 99-100, 11 March 2010, am, pp. 5-8, 24; John Madden, 29 March 2010, am, pp. 89-97, 30 March 2010, am, p. 120.

⁸²⁰ Stuart Mortimore, 11 March 2010, am, pp. 91-92.

⁸²¹ With the exception of an arrangement shown in close up in Pro 1024F, designed to hold the earth wire close to the upper busbar for the purpose of certain tests undertaken on this distribution board: see Stuart Mortimore, 11 March 2010, am, pp. 111-112; John Madden, 29 March 2010, am, pp. 55-57.

⁸²² Stephen Joel, 10 March 2010, am, pp. 27-28.

⁸²³ Stephen Joel, 10 March 2010, am, p. 65.

was held in place by four captive screws⁸²⁴. The metal was covered with a cream coloured powder coating⁸²⁵.

17. In situ, the board was mounted on a backboard attached to the plasterboard wall of the cupboard⁸²⁶. The mounting points protruded slightly, creating a small gap of one to two millimeters between the back of the distribution board and the plywood board upon which it was mounted⁸²⁷.

18. The internal layout of the distribution board is shown in Fig 4 of production 1278⁸²⁸. The way in which the distribution board fulfilled its function can be understood by reference to that Figure and to production 1024A.

18.1 The mains power supply to the distribution board came via a cable which ran down the internal left hand wall of the cupboard to enter the distribution board at the top⁸²⁹. Within this cable were two circuit conductors, a live one (red) and a neutral one (blue). Each of these conductors was connected to an isolator switch on the right hand side of the upper busbar⁸³⁰.

18.2 Within the board were the following components:

18.2.1 Two horizontal copper busbars, one above the other. Each busbar looked rather like a comb with teeth so that miniature circuit breaker ("MCBs") could be clamped onto it⁸³¹.

18.2.2 A horizontal brass neutral bar, in the top part of the distribution board.

⁸²⁴ Stephen Joel, 10 March 2010, am, pp. 31-32; John Madden, 30 March 2010, am, pp. 122-123

⁸²⁵ John Madden, 30 March 2010, am, pp. 122-123.

⁸²⁶ Stuart Mortimore, 11 March 2010, pm, p. 30, p. 71, 16 March 2010, pm, pp. 46-47, 17 March 2010, am, pp. 110-111; John Madden, 30 March 2010, am, p. 128.

⁸²⁷ Stuart Mortimore, 16 March 2010, pm, p. 38, 17 March 2010, am, pp. 112-113.

⁸²⁸ John Madden, 30 March 2010, am, pp. 120-121; the Figure is on manuscript page 48.

⁸²⁹ Stuart Mortimore, 16 March 2010, am, pp. 16-17; under reference to Pro 873A.

⁸³⁰ John Madden, 29 March 2010, am, pp. 467-47; 30 March 2010, am, pp. 133-136

⁸³¹ Stephen Joel, 10 March 2010, am, pp. 30-31, under reference to Label 464 (the upper busbar); Stuart Mortimore, 11 March 2010, am, pp. 75-76.

18.2.3 There were two vertical brass earth bars, one on each side of the distribution board⁸³².

18.3 Power was supplied to the two busbars from the live isolator switch⁸³³. The neutral isolator switch was connected to the neutral bar.

18.4 From the distribution board, power was supplied to appliances, lighting circuits, etc, through outgoing cables. Each outgoing cable had three cores: a live core (red); a neutral core (black); and an earth core⁸³⁴. It was standard practice for lighting circuits to be served from the upper busbar; and power circuits from the lower busbar⁸³⁵.

18.5 The live core for each outgoing cable was clamped to the upper terminal of one of the MCBs. The neutral core for each outgoing cable was clamped to the neutral bar⁸³⁶.

18.6 The earth core from each outgoing cable was connected to the earth bar. An earth connection was made onto the casing of the distribution board itself through a gland at the top of the board⁸³⁷.

19. There were seven MCBs on the upper busbar and a spare “way” or unused space. There were ten MCBs and another spare “way” on the lower busbar⁸³⁸. The unused “ways” should have been covered by blanking plates. Evidence of residue consistent with a blanking plate being present at the top row of MCBs was found⁸³⁹. There was no residue of plastics from the blanking plates which should have been fitted in the lower row of circuit breakers. Although it is possible that these could

⁸³² John Madden, 29 March 2010, am, pp. 53-54.

⁸³³ John Madden, 29 March 2010, am, pp. 47-49.

⁸³⁴ John Madden, 30 March 2010, am, pp. 137-138.

⁸³⁵ Alexander Ross, 27 January 2010, pm, p. 46

⁸³⁶ John Madden, 29 March 2010, am, pp. 49-52.

⁸³⁷ John Madden, 29 March 2010, am, pp. 52-53; 30 March 2010, am, p. 132.

⁸³⁸ Stuart Mortimore, 11 March 2010, am, pp. 74-79; John Madden, 30 March 2010, am, pp. 147-148.

⁸³⁹ John Madden, 30 March 2010, am, p. 50.

have been consumed in the fire⁸⁴⁰ the absence of any residue would be consistent with there having been no blanking plate on the lower busbar⁸⁴¹.

20. The MCBs in the distribution board in cupboard A2 were magnetic thermal overload circuit breakers. These incorporated two elements: a thermal element; and a magnetic element. The thermal element was a bimetallic strip, i.e. two pieces of metal of different type connected together. If the strip were to be heated, one of the metals would expand more rapidly than the other, operating a switch to trip the MCB. The magnetic element had a coil of wire. If current were to pass through the wire it would generate a magnetic field. This too would operate a switch. The MCB could be set to trip, by this mechanism, at a particular overload current⁸⁴². In the event of an overload, the circuit would be broken by pulling apart two contacts inside the MCB. As the contacts pull apart, the current tries to continue to pass across the contacts, creating an arc within the circuit breaker. This is a normal part of breaking the circuit which, within limits, a circuit breaker is designed to accommodate⁸⁴³.

21. All of the MCBs on the upper busbar were manufactured by MEM and were rated at 6 amps. It is likely that these fed lighting circuits and the controller for the extract fan⁸⁴⁴. All of the MCBs on the lower busbar, apart from circuit breaker 10, were also manufactured by MEM. The first four from the left were rated at 16 amps. The next four supplied the ring main circuits and were rated at 32 amps. The circuit breaker in position 9 was rated at 32 amps but had no wires connected to its outgoing terminal⁸⁴⁵.

22. Circuit breaker 10 on the lower busbar (Label 323) was of a type known as a Merlin Gerin circuit breaker, manufactured by Schneider⁸⁴⁶. It was rated at 50 amps and had been manufactured in or after August 1993:

⁸⁴⁰ Stuart Mortimore, 11 March 2010, pm, p. 75.

⁸⁴¹ John Madden, 30 March 2010, pm, pp. 9-10.

⁸⁴² Stuart Mortimore, 11 March 2010, am, pp. 100-101.

⁸⁴³ Stuart Mortimore, 11 March 2010, am, pp. 92-97.

⁸⁴⁴ John Madden, 30 March 2010, am, p. 138.

⁸⁴⁵ John Madden, 30 March 2010, am, pp. 139-140; 31 March 2010, am, pp. 49-50.

⁸⁴⁶ Stuart Mortimore, 11 March 2010, am, pp. 76, 87-91, pm, pp. 5-6.

22.1 The Label itself was identified by M. Ribas, of Schneider, as being a Merlin Gerin circuit breaker, rated at either 45 or 50 amps, manufactured at Schneider's Ajax plant⁸⁴⁷.

22.2 Schneider's Ajax plant first came into operation in August 1993 and closed in or about 2002⁸⁴⁸.

22.3 45 amp is an unusual current rating for the United Kingdom. Schneider have never marketed at 45 amp circuit breaker in the United Kingdom⁸⁴⁹

23. Circuit breaker 10 had been fitted upside down, in order to allow the distribution board cover to fit over it⁸⁵⁰.

24. Photograph 54 (p. 178) of production 1454 shows Label 323, following the incident, after one side had been removed. The two terminals of the circuit breaker are at the top and bottom. Immediately beneath the top terminal is the thermal device, connected by a braided copper wire to the contact mechanism. The moving arm of the contact is held on a circular pivot point about a quarter to a third of the way from the top of the device and sitting at an angle of 20 degrees to the horizontal. Immediately beneath the moving arm of the contact mechanism is the fixed contact. Beneath the moving arm of the contact mechanism is a coil of wire, which is the magnetic trip mechanism. To its left, in the bottom part of the MCB is a box-like grid structure. This is an arcing chamber which is meant to suppress the arc which will occur when the circuit breaker trips⁸⁵¹.

25. Each busbar should have had a plastic cover which would have been fitted after the circuit breakers and internal wires had been installed⁸⁵². Following the fire

⁸⁴⁷ Paul Markham, 18 March 2010, pm, pp. 48-50; John Madden, 29 March 2010, am, pp. 86-89.

⁸⁴⁸ Paul Markham, 18 March 2010, pm, p. 50.

⁸⁴⁹ Paul Markham, 18 March 2010, pm, pp. 50-51.

⁸⁵⁰ John Madden, 30 March 2010, am, p. 141; 31 March 2010, pm, pp. 23-24.

⁸⁵¹ Stuart Mortimore, 15 March 2010, am, pp. 21-24; see also 2 August 2010, pm, pp. 14-16.

⁸⁵² John Madden, 30 March 2010, am, p. 132.

residues were found consistent with each busbar having had a plastic cover and it may accordingly be concluded that both covers were in place before the fire⁸⁵³.

26. Prior to the installation, the distribution board would have been supplied with its surfaces intact, but with semi-pierced indentations for cable entry holes which could be knocked out by the installing electrician as required. In this case, one hold had been knocked out of the top plate for the supply cables, two holes in the bottom plates for the connections to the RCDs and three holes in the back plate for the outgoing cables⁸⁵⁴. The paint would not have been continuous over the edge where the metal had been knocked out. There was accordingly a bare metal edge. The edge of a cable knockout tends to be quite sharp⁸⁵⁵ – though how sharp would depend how clean the punch was⁸⁵⁶ - and may include burrs where the metal which has been knocked out would have been attached to the rest of the board⁸⁵⁷.

27. There were two rectangular slots in the metal front cover of the distribution box⁸⁵⁸. These corresponded to the two busbars and allowed access to the isolator switches and the MCBs without removing the front metal cover. As shown in production 1024E, a MEM distribution board should have a plastic hinged cover over each of these slots. Mr Balmer was “almost certain” that these were in place, on the basis that in walking round the Home he checked in cupboards and if he had noticed them missing he would have raised this⁸⁵⁹. However, following the fire no trace was found of these external plastic covers. Although there was a possibility that these covers could, depending on the severity of the fire, have been consumed without trace, if the covers had been in place, one would have expected the four retaining screws to have been found inside the board following the fire. In the fullscale cupboard test undertaken by the HSL, which was undertaken with the covers in place, the screws were found⁸⁶⁰. By contrast, no retaining screws were found in the incident

⁸⁵³ Stuart Mortimore, 11 March 2010, pm, pp. 77-79, 15 March 2010, am, pp. 52-53. Such a cover is shown on the lower busbar in Pro 1024A; Stuart Mortimore, 11 March 2010, pm, p. 78.

⁸⁵⁴ Stephen Joel, 10 March 2010, am, pp. 28-29; John Madden, 30 March 2010, am, pp. 123-124.

⁸⁵⁵ John Madden, 30 March 2010, am, p. 124.

⁸⁵⁶ Stuart Mortimore, 11 March 2010, pm, pp. 16, 18-19.

⁸⁵⁷ Stuart Mortimore, 18 March 2010, pm, pp. 20-23.

⁸⁵⁸ Stephen Joel, 10 March 2010, am, pp. 32-33.

⁸⁵⁹ Thomas Balmer, 4 May 2010, am, pp. 19-20.

⁸⁶⁰ John Madden, 30 March 2010, am, p. 35.

board and one may accordingly conclude that the plastic covers were not in fact in situ before the fire⁸⁶¹.

28. Beneath the distribution board were two residual current devices. A residual current device is a type of circuit breaker designed specifically to detect earth fault current or insulation failures to earth and to trip extremely quickly. The residual current devices protected the circuits served by the MCBs at positions 3 and 4 on the lower. The cables to the RCDS from those positions passed through a knockout in the base of the distribution board⁸⁶².

29. To the left of the distribution board (i.e. closer to the front of the cupboard) was a ventilation controller, which controlled the fan for the ventilation system. This received its power supply from the upper busbar of the distribution board⁸⁶³.

30. Above the distribution board was a fused spur unit for the emergency lighting circuit⁸⁶⁴.

Power supply to the washing machines

31. The two switches on the wall of the laundry which served the Minett and the 903 (seen in production 857A) were supplied with power from the distribution board in cupboard A2.

31.1 Power was supplied to the right hand switch from the distribution board in cupboard A2. The cable which took power from the distribution board to that switch was designated during the investigation as “cable V”⁸⁶⁵. It was protected by the Merlin Gerin MCB. A flexible cord of about 2.5 mm cross-sectional area led from the right hand switch and was wired into the Minett⁸⁶⁶.

⁸⁶¹ Stuart Mortimore, 11 March 2010, am, pp. 79-83, pm, pp. 73-74, 15 March 2010, am, pp. 43-44; John Madden, 30 March 2010, pm, pp. 4-8.

⁸⁶² Stuart Mortimore, 11 March 2010, am, pp. 36-37; John Madden, 29 March 2010, am, pp. 72-73; 30 March 2010, am, pp. 141-142.

⁸⁶³ Stuart Mortimore, 11 March 2010, am, pp. 37-38; John Madden, 30 March 2010, am, pp. 138-139.

⁸⁶⁴ Stuart Mortimore, 11 March 2010, pm, p. 71.

⁸⁶⁵ Stuart Mortimore, 11 March 2010, am, pp. 87-91, pm, pp. 5-6.

⁸⁶⁶ John Madden, 29 March 2010, am, pp. 100, 115; 30 March 2010, am, pp. 145-146.

31.2 The left hand switch was supplied with power from the right hand switch via a small length of grey 6 mm² twin and earth cable, looped from one switch to the other. Similar cable led from that switch and was wired into the 903 washing machine⁸⁶⁷.

⁸⁶⁷ John Madden, 29 March 2010, am, pp. 100-101, 30 March 2010, am, pp. 145-146.

Cable V

The cable

32. Cable V, the cable which supplied power to the 903 and the Minett, was a flat twin and earth cable⁸⁶⁸, 6 mm² in cross-sectional area⁸⁶⁹. It had three cores, live, neutral and earth. The live and neutral cores each comprised seven strands of copper. The live core was insulated with red PVC insulation. The neutral core was insulated with black PVC insulation. The earth core was not separately insulated. A grey PVC oversheath enclosed the three cores⁸⁷⁰. The cable was rated to operate continuously at 70 degrees Centigrade⁸⁷¹.

The route of cable V

33. Cable V carried power from the distribution board in cupboard A2 to the right hand isolator switch on the wall of the laundry. It received its power through circuit breaker 10 on the lower busbar – the Merlin Gerin circuit breaker. The route of cable V from the distribution board in cupboard A2 to the right hand isolator switch on the wall of the laundry was as follows:-

33.1 Through the upper righthand knockout on the back of the distribution board.

33.2 Through holes in the backboard and the plasterboard wall of the cupboard into the void between cupboards A2 and A1⁸⁷².

33.3 Up through the void between the two cupboards, and through the ceiling of the void, into the roof space. The void was full of glass fibre insulation⁸⁷³.

⁸⁶⁸ Colin Reed, 11 June 2010, am, p. 8, under reference to Label 479.

⁸⁶⁹ John Madden, 29 March 2010, am, p. 115; 30 March 2010, am, pp. 1420143.

⁸⁷⁰ Stuart Mortimore, 11 March 2010, pm, p. 9, p 82; Colin Reed, 11 June 2010, am, pp. 8-10.

⁸⁷¹ John Madden, 29 March 2010, pm, p. 62.

⁸⁷² Stuart Mortimore, 11 March 2010, pm, pp. 33-34.

⁸⁷³ Stuart Mortimore, 16 March 2010, pm, pp. 45-46; John Madden, 30 March 2010, am, pp. 128-130.

33.4 Across the roof space above the ceilings of rooms and corridors between the point where the cable entered the roofspace and a ventilation pipe directly above the laundry. In the roofspace, the cable was clipped to the rafters at certain points along its course⁸⁷⁴ but otherwise simply lay on top of the glass fibre insulation and rafters.

33.5 Into that ventilation pipe through a hole which had been cut in it to allow the cable to enter the pipe and then sealed with tape. The ventilation pipe can be seen in production 858K⁸⁷⁵. Production 857N shows the ventilation pipe in the roofspace with cable V entering it⁸⁷⁶. Production 857P shows the pipe with the sticky tape removed⁸⁷⁷

33.6 Down the ventilation pipe to the location of the right hand isolator switch which was mounted on the side of the ventilation shaft for the pipe⁸⁷⁸. The switches can be seen in production 857A.

History of the electrical connections to the washing machines

Cable V

34. Cable V and the right hand wall mounted switch (which served the Minett) were added after the first fix phase of the construction work had been completed⁸⁷⁹ but before the Home was opened.

34.1 Cable V was of a different manufacture from the other cables that had been installed as part of the first fix⁸⁸⁰.

⁸⁷⁴ Stuart Mortimore, 11 March 2010, pm, p. 45-46.

⁸⁷⁵ Stuart Mortimore, 11 March 2010, pm, pp. 33-34.

⁸⁷⁶ Stuart Mortimore, 11 March 2010, pm, pp. 28-29.

⁸⁷⁷ Stuart Mortimore, 11 March 2010, pm, p. 33.

⁸⁷⁸ Stuart Mortimore, 11 March 2010, pm, pp. 27-30; John Madden, 29 March 2010, am, pp. 102-106.

⁸⁷⁹ Alexander Ross, 27 January 2010, pm, pp. 17-18, 41-44; John Madden, 30 March 2010, pm, pp. 11, 16-17, 29-30.

⁸⁸⁰ John Madden, 30 March 2010, pm, p. 13

34.2 The circuits on the lower floor were, with the exception of the switches served by Cable V, served by the distribution board in the cupboard on the lower floor⁸⁸¹. In particular, the other circuits for the laundry were served from that distribution board⁸⁸².

34.3 In the ordinary course of construction, cable runs are installed as a “first fix”, before the plasterboard was fitted and decoration undertaken. This was the way the rest of the cabling at Rosepark appeared to have been fitted⁸⁸³.

34.4 All the other outlets in the laundry were flush mounted. Only the two switches on the ventilation shaft were wall mounted⁸⁸⁴.

34.5 There was no indication on the warranted drawing of a switch at that location⁸⁸⁵.

34.6 If the switches in the laundry were fitted at a late stage, as an afterthought, after the decoration had been completed, the easiest and least disruptive way to get power to it, without disturbing the decoration, would have been to run the cable up the ventilation duct, across the roofspace, and down to the distribution board on the upper floor⁸⁸⁶.

34.7 When the handover of the Home from the subcontractors to Mr Balmer took place, there was no equipment in the laundry and the switch and associated cabling were not there at that time⁸⁸⁷.

34.8 The righthand wall-mounted switch was in place before the Home was opened⁸⁸⁸.

⁸⁸¹ John Madden, 30 March 2010, pm, p. 12.

⁸⁸² Thomas Balmer, 4 May 2010, am, pp. 25-26.

⁸⁸³ John Madden, 30 March 2010, pm, pp. 11-12, 14-15.

⁸⁸⁴ Alexander Ross, 27 January 2010, pm, pp. 12-17; John Madden, 30 March 2010, pm, pp. 13-14; cp George Harvie, 29 January 2010, am, p. 131.

⁸⁸⁵ George Harvie, 29 January 2010, am, pp. 127-132

⁸⁸⁶ Alexander Ross, 27 January 2010, pm, pp. 41-43; John Madden, 30 March 2010, pm, pp. 12-13, 15-16.

⁸⁸⁷ George Harvie, 29 January 2010, am, pp. 133-143, 152; 2 February 2010, am, pp. 12-13.

⁸⁸⁸ Thomas Balmer, 4 May 2010, am, pp. 8-15.

35. Mr Ross accepted that he would probably have been involved in the electrical installation in the laundry at the time of the original work⁸⁸⁹. But he did not recall himself being called in to make a late addition of this sort⁸⁹⁰. On the basis of the foregoing considerations, it is likely that the cable would have been installed when the washing machines were brought into the laundry. The Crown accept that the person responsible for installing it cannot be identified. In my opinion they are correct to do so. There is no satisfactory evidence on this issue.

Additional switch for a second washing machine

36. For the following reasons, I conclude that the left hand wall mounted switch (serving the Nyborg 903 washing machine (“the 903”)) was a later addition, added when the 903 was installed⁸⁹¹.

36.1 The way that the two switches are connected together suggests that the left hand switch was added at a later date⁸⁹².

36.2 When the Minett was installed in December 1996 there was only one switch on the side of the ventilation shaft – namely, the right hand one⁸⁹³.

36.3 The 903 was an additional machine.

36.4 The second switch was there when Mr McRae was called to re-install the 903.

37. Taking the evidence as a whole, I am not prepared to hold that the person responsible for installing the lefthand wall mounted switch can be identified. While Alexander Ross accepted he was the electrician who normally carried out electrical work at Rosepark and that this was the sort of job he could have done, he had no

⁸⁸⁹ Alexander Ross, 27 January 2010, pm, p. 12

⁸⁹⁰ Alexander Ross, 27 January 2010, pm, pp. 44, 57.

⁸⁹¹ Thomas Balmer, 4 May 2010, am, pp. 15-17

⁸⁹² Alexander Ross, 27 January 2010, pm, pp. 19-21.

⁸⁹³ Duncan McRae, 26 January 2010, am, pp. 90-97, pm, pp. 12-15.

recollection at all of carrying out this piece of work. Thomas Balmer in my opinion gave very significant evidence on this issue. He was shown photograph 657A which showed the two switches. In particular it showed the extremely poor workmanship on the lefthand box which showed that the insulation of the wiring being introduced to the switch box had been cut back a substantial length before the wiring entered the switch box. This poor workmanship had been criticised by a number of witnesses. Thomas Balmer (11 May 2010 pm pages 30 and 31) stated:

“On reflection I do not think that was his work, because we did work with Mr Ross consecutively throughout the years and his work was of the highest standard and calibre.”

Mr Balmer added:

“It looked like something a washing machine engineer would do”.

I was also impressed by the standard of memory displayed in evidence by Alexander Ross. Production 570 “forms of completion and inspection certificate” contained two signatures apparently bearing his name dated 30 January 1992 and 1 February 2003. They were put to him and it was suggested they were his signatures. While he conceded the signatures looked like his, he could not recall making these two signatures. In fact, later evidence revealed that the signatures had been adhibited by Thomas Balmer. In these circumstances I attach substantial weight to the evidence of Alexander Ross. I accept that when he stated he did not recall fitting the lefthand wall mounted switch in the laundry, he in fact did not do so.

Merlin Gerin circuit breaker

38. The Merlin Gerin circuit breaker⁸⁹⁴ was installed in or after August 1993. It was accordingly not part of the original installation. There would have been a rational reason to install a circuit breaker with the rating of the Merlin Gerin at the same time as or after the second switch, since the current drawn by the two machines would be liable to cause a circuit breaker rated below the rating of cable V to trip and would explain the selection of a higher rated circuit breaker. Mr Clark gave some evidence to the effect that the fuse was upgraded to accommodate the increased load when the second machine was added⁸⁹⁵. Alexander Ross however claimed that he did not

⁸⁹⁴ See para. 22 above.

⁸⁹⁵ Joseph Clark, 20 January 2010, pm, pp. 29-33, 49-50.

install this circuit breaker⁸⁹⁶. I am not prepared to conclude that he installed this circuit breaker.

39. Mr Balmer claimed to recollect a discussion with Mr Harvie in which Mr Harvie, referring to the washing machine circuit stated that he would easily recognise it “because it’s a heavier breaker and it switches in the opposite direction to the others”⁸⁹⁷. Given the evidence about the date of manufacture of the Merlin Gerin circuit breaker, this evidence cannot in fact relate to the Merlin Gerin circuit breaker.

The state of the electrical installation following the fire

The fuse for the distribution board in cupboard A2

40. Following the fire the fuse in the main electrical cupboard in the foyer which served the distribution board in cupboard A2 was found to have blown⁸⁹⁸.

The distribution board

41. The distribution board from cupboard A2 and its contents had suffered a significant amount of fire damage. The damage to the carcass of the board itself was manifested as charring and loss of coating from both sides of the case both inside and outside and also charring and bubbling of the paint around the edges of the back plat of the case, both inside and outside. The heat distribution across the back plate appeared to have been relatively symmetrical at any given height above the bottom edge, with the greatest affected areas being at the sides of the box. The heating effect lessened towards the centre of the case both internally and externally. There was some evidence that the left side of the distribution board had been heated to a greater extent than the right side⁸⁹⁹.

⁸⁹⁶ Alexander Ross, 27 January 2010, pm, pp. 59-62.

⁸⁹⁷ Thomas Balmer, 4 May 2010, am, pp. 22-25.

⁸⁹⁸ Stuart Mortimore, 11 March 2010, am, p. 25; John Madden, 29 March 2010, am, pp. 96-97.

⁸⁹⁹ Stephen Joel, 10 March 2010, am, pp. 65-69.

The MCBs

42. All of the MCBs in the distribution board were found, on testing following the fire, and on radiographic examination of the MCBs, to be off⁹⁰⁰. In the context of a fire a MCB of the sort found in this distribution board might have been caused to trip either by the thermal or by the magnetic mechanism.

(a) Thermal mechanism. As the breaker heats up, the thermal element responds and, if the rise in temperature becomes excessive, as normally it would in a prolonged fire, this would trip the breaker⁹⁰¹.

(b) Magnetic mechanism. If the circuit is live at the start of the fire and the fire burns through the cable on the outlet side of the circuit breaker, the conductors may short together, giving a high current which would be detected by the magnetic element and trip the breaker⁹⁰².

The Merlin Gerin circuit breaker

43. Circuit breaker 10 (the Merlin Gerin circuit breaker)⁹⁰³ exhibited, on visual examination, markedly more damage than any of the other circuit breakers⁹⁰⁴.

44. On internal examination, it was found that the circuit breaker had, at some time, operated under duress⁹⁰⁵.

Evidence of arcing

45. Evidence of arcing was found at two locations within the distribution box in cupboard A2.

⁹⁰⁰ Stuart Mortimore, 11 March 2010, am, p. 99, pm p. 76.

⁹⁰¹ Stuart Mortimore, 11 March 2010, am, pp. 100-102.

⁹⁰² Stuart Mortimore, 11 March 2010, am, pp. 100-102.

⁹⁰³ Para. 22 above.

⁹⁰⁴ Stuart Mortimore, 11 March 2010, am, pp. 86-89

⁹⁰⁵ Stuart Mortimore

45.1. Two earth cores which were routed in close proximity to the upper busbar were discontinuous. A piece was missing from the busbar itself⁹⁰⁶. This was consistent with electrical arcing activity⁹⁰⁷. That the damage to the busbar was indeed a consequence of arcing was confirmed by metallurgical analysis⁹⁰⁸. The damage to the busbar is shown in Photograph 28 (page 152) of production 1454⁹⁰⁹, and the two earth cores in Photograph 31 (p. 155) of production 1454⁹¹⁰.

45.2. Two of the wires forming the live core of cable V were broken at the point where the cable passed through the carcass of the distribution board. There was also a small notch in the steelwork at the knockout, adjacent to the discontinuity in the two cores of the cable⁹¹¹. This was consistent with the effects of electrical arcing activity between the cable and the steel of the distribution board⁹¹². That the damage at the knockout was indeed a consequence of arcing was confirmed by metallurgical analysis⁹¹³. Production 875A is a photograph showing the inside of the distribution board in which the discontinuity in the two cores of cable V can be seen⁹¹⁴. Photograph 33 (page 157) of production 1454 is a photograph looking from the other side of the board annotated to show the discontinuous strands of the live core and the signs of electrical arcing activity at the edge of the knockout⁹¹⁵. The approximate location of the evidence of arcing is shown in Figure 4 of production 1278⁹¹⁶. The evidence of arcing activity at cable V would be expected to cause the associated circuit breaker to trip very quickly – in other words, to operate under duress⁹¹⁷.

⁹⁰⁶ Stuart Mortimore, 11 March 2010, am, pp. 102-106

⁹⁰⁷ Stuart Mortimore, 11 March 2010, pm, pp. 6-12, 14-15; John Madden, 29 March 2010, am, pp. 83-85

⁹⁰⁸ John Madden, 30 March 2010, am, p. 48.

⁹⁰⁹ Stuart Mortimore, 11 March 2010, pm, p. 80.

⁹¹⁰ Stuart Mortimore, 11 March 2010, pm, p. 81.

⁹¹¹ Stuart Mortimore, 11 March 2010, pm, pp. 6-12, 14-15.

⁹¹² Stuart Mortimore, 11 March 2010, pm, pp. 6-12, 14-15; John Madden, 29 March 2010, am, pp. 83-85.

⁹¹³ John Madden, 30 March 2010, am, p. 47.

⁹¹⁴ Stuart Mortimore, 11 March 2010, pm, pp. 11-12.

⁹¹⁵ Stuart Mortimore, 11 March 2010, pm, pp. 83-84.

⁹¹⁶ Stephen Joel, 10 March 2010, am, pp. 47-48.

⁹¹⁷ Stuart Mortimore, 11 March 2010, pm, pp. 13-14.

Absence of grommets on the knockouts of the distribution board in cupboard A2

46. For the following reasons, I concluded that none of the knockouts of the distribution board in cupboard A2 was protected by a grommet.

46.1. Following the fire, there was no evidence found that a grommet had been fitted to any of the knockouts of the distribution board in cupboard A2⁹¹⁸.

46.2. In particular there was no evidence – in the form of charred residue or a protection pattern – that a grommet had been in place round the upper right knockout (through which cable V passed)⁹¹⁹.

46.3. Even PVC (which is not easily burned) can burn to utter destruction leaving no residue given enough time, heat and air⁹²⁰. It is unlikely, however that this is the explanation for the absence of any evidence of a grommet at cable V for the following reasons:-

46.3.1. The back of the distribution board was not – by reason of the numerous surfaces which would tend to reduce the temperature - an ideal location to burn a grommet to utter destruction such that no residue would be left⁹²¹.

46.3.2. If a grommet were to have been present and burned to utter destruction, it would still have left a protection mark⁹²².

46.3.3. Other insulation had survived in the area such that one might have expected to see some insulation surviving had there been grommets⁹²³. In particular, as seen in production 1037Y, the cables at the central knockout were more or less intact. If there had been a grommet at that location

⁹¹⁸ Stuart Mortimore, 16 March 2010, pm, p. 7; John Madden, 30 March 2010, am, p. 61.

⁹¹⁹ Stuart Mortimore, 11 March 2010, pm, pp. 16-17, 84-5, 16 March 2010, am, pp. 47-48.

⁹²⁰ Ivan Vince, 11 August 2010, am, pp. 62-63.

⁹²¹ Ivan Vince, 11 August 2010, am, pp. 65-66.

⁹²² James Lygate, 10 August 2010, am, pp. 80-82. Dr. Vince deferred to an experienced fire investigator on this question: 11 August 2010, am, p. 66.

⁹²³ Stuart Mortimore, 11 March 2010, pm, pp. 16-17.

which had been burned to destruction, one would have expected much more damage to the cables⁹²⁴.

47. The inference is that whichever of the electricians who was on site for Star Electrical Services (Strathclyde) Limited installed this distribution board did not fit grommets at the cable knockouts⁹²⁵.

Outer sheath of cable V not protecting the inner core

48. Mr Mortimore formed the view that the outer sheath of cable V terminated outside the distribution board⁹²⁶. The sheath appeared to stop short of the board⁹²⁷. Furthermore, an attempt was made to align cable V and the other cables⁹²⁸ and it was Mr Mortimore's impression that the other cable had more cable sheath on them than cable V⁹²⁹.

49. The insulation on the external wires became progressively more damaged the closer it was to the distribution board back plate and the cable entry holes through it⁹³⁰. Mr Mortimore accepted that it was possible that what he had observed had occurred as a result of the fire⁹³¹.

50. I have concluded that cable V was installed as an afterthought⁹³². That in my view explains how it could have come about that the outer sheath of that cable was not protecting the core. Installing cable V, after the distribution board had already been fitted and wired up, would have been an awkward job⁹³³. The electrician would have had to feed the cable down the void between the two cupboards and fish it through the knockout into the distribution board. He would then have to strip back the sheath to expose the inner cores, and terminate each of them appropriately. He

⁹²⁴ John Madden, 30 March 2010, am, pp. 61-62; Ivan Vince, 11 August 2010, am, pp. 66-68.

⁹²⁵ Stuart Mortimore, 16 March 2010, pm, pp. 7-8.

⁹²⁶ 11 March 2010, pm pp. 20-21.

⁹²⁷ 2 August 2010, pm, p. 114.

⁹²⁸ 2 August 2010, pm, pp. 113-114.

⁹²⁹ 16 March 2010, pm, pp. 8-9; 2 August 2010, pm, p. 77.

⁹³⁰ Stephen Joel; pro 1284, p. 9 (manuscript); Stuart Mortimore, 2 August 2010 pm, pp. 73-74.

⁹³¹ 2 August 2010, pm, p. 115.

⁹³² Para. 34 above.

⁹³³ John Madden, 30 March 2010, pm, pp. 22-23.

would connect the red wire to the relevant circuit breaker, the neutral core to the neutral bar and (after fitting a sleeve) the earth core to the earth bar. He would then push the cabling back. In doing this, one can envisage the edge of the grey outer sheath ending up on the wrong side of the knockout⁹³⁴. It would also have been possible, in the context of such an installation, for the outer sheathing to have become shaved or damaged on the edge of the knockout⁹³⁵. Additionally I have concluded that, while Alexander Ross did a number of pieces of electrical work in Rosepark, there is no satisfactory evidence that he installed cable V (paragraph 35 *supra*) or the lefthand wall mounted switch (paragraph 37 *supra*). When shown photograph 657A of the lefthand switch in the laundry, Thomas Balmer agreed that it was very poor workmanship. He did not think it was the work of Alexander Ross because he had done work for him throughout the years and his work was of the highest standard and calibre (paragraph 37 *supra*). The installation of cable V was in connection with power to the laundry. It seems to me to be a reasonable conclusion that whoever installed cable V may well, albeit at a different time, also have installed the lefthand wall mounted switch in the laundry. The whole route of cable V from the laundry to the distribution board in cupboard A2 demonstrated very poor workmanship. I consider it is a proper and reasonable conclusion that whoever installed cable V in the distribution board in cupboard A2, cut back the cable for ease of access in a similar way to what was done at the lefthand wall mounted switch in the laundry.

Evidence of overheating of cable V

51. A piece of bituminous felt (Label 544) lying across cable V in the attic was found to have adhered to cable V. There was a mark on the underside of the felt where the bituminous substance of the felt had softened. This is shown in production 858L and production 858M. The softening coincided with the routing of cable V. There was also some black bituminous residue on the cable itself. The only reason that the bituminous substance of the felt would soften would be due to heat. This evidence accordingly indicated that cable V had got warm at some stage⁹³⁶.

⁹³⁴ Alexander Ross, 28 January 2010, am, pp. 46-49; John Madden, 30 March 2010, pm, pp. 17-26.

⁹³⁵ Alexander Ross, 28 January 2010, am, pp. 46-47

⁹³⁶ Stuart Mortimore, 11 March 2010, pm, pp. 35ff.

Comment on the quality of workmanship exhibited by the electrical installation

Absence of grommets at the knockout

52. This was: (a) contrary to the IEE Regulations; (b) contrary to the manufacturer's recommendations; and (c) contrary to good electrical practice.

The route of cable V

53. One should not normally route a cable down a piece of pipe⁹³⁷. The cable was not supported along its length to protect it against damage from vibration or from its own weight⁹³⁸. Nor would one normally seal the hole with pieces of sticky tape in the manner seen in production 857N. Although this would not technically be a problem, it did not look like a very good job⁹³⁹. Stuart Mortimore described the arrangement as “a bit of a lash-up”⁹⁴⁰. Mr Madden stated that this was a “poor standard installation”⁹⁴¹.

54. The hole cut in the pipe was not a neat job. Although it did not create a danger, because plastic is a relatively soft material, the arrangement was not best practice⁹⁴². Mr Millar described it as “very poor workmanship”⁹⁴³.

55. The way the cables were lying in the roof was very untidy. They should have been clipped neatly to prevent people from tripping over them in the roofspace⁹⁴⁴.

The rating of cable V

56. The cross sectional area of cable V (6 mm²) was too low for the maximum load which it could have been called on to supply if the heating elements of both washing

⁹³⁷ Alexander Ross, 28 January 2010, am, p. 54; David Millar 1 April 2010, pm, pp. 32-33.

⁹³⁸ John Madden, 30 March 2010, pm, pp. 60-61.

⁹³⁹ Stuart Mortimore, 11 March 2010, pm, pp. 32-33, 16 March 2010, pm, p. 69.

⁹⁴⁰ Stuart Mortimore, 11 March 2010, pm, p. 32.

⁹⁴¹ John Madden, 31 March 2010, am, p. 67.

⁹⁴² Stuart Mortimore, 11 March 2010, pm, p. 33

⁹⁴³ David Millar, 1 April 2010, pm, pp. 31-32.

⁹⁴⁴ John Madden, 31 March 2010, am, p. 67; David Millar, 1 April 2010, pm, pp. 32-34.

machines were to have been in operation at the same time⁹⁴⁵. The electrician installing the cable should have proceeded on the assumption that both machines were fully serviceable and that accordingly the maximum current which could be drawn by the two washing machines together was 41 amps⁹⁴⁶. For 41 amps current, there should have been a 10 square millimeter cable. However, in fact, having regard to diversity (i.e. the cycling time off and on), a 6 square millimeter cable was, in fact, adequate: even if the current drawn was 41 amps, the cable would not in fact overheat⁹⁴⁷. And, in fact, Mr McRae had taken steps, by disconnecting one of the heating elements on the Minett, to bring the current drawn, if the heating elements of both machines should be operating at the same time, under 32 amps⁹⁴⁸.

The Merlin Gerin circuit breaker

57. The rating of the Merlin Gerin circuit breaker (50 amps) was too high, having regard to the rating of cable V. Cable V was rated at 32 amps⁹⁴⁹. This did not satisfy regulation 11 of the Electricity at Work Regulations⁹⁵⁰. Indeed, because the cable was grouped with other cables, arguably, the rating should have been reduced to 26 amps. And the circuit breaker also protected the white cable to the Minett which was rated at only 25 amps⁹⁵¹. On the other hand, with both washing machines being served by that cable, the starting current of the washing machine motors would probably have caused a circuit breaker of 32 amps or less to trip⁹⁵². The practical implication of this should have been to increase the size of the cable serving these machines so that one could safely have a circuit breaker which would not trip all the time⁹⁵³.

58. It was bad practice to install a circuit breaker from one manufacturer in a distribution board made by another manufacturer. This introduces the risk of a poor

⁹⁴⁵ John Madden, 30 March 2010, pm, pp. 40-41; cp Alexander Ross, 27 January 2010, pm, pp. 20-25.

⁹⁴⁶ John Madden, 30 March 2010, pm, pp. 39-45.

⁹⁴⁷ Stuart Mortimore, 16 March 2010, pm, pp. 65-67; John Madden, 30 March 2010, pm, pp. 44-51.

⁹⁴⁸ Chapter 10, para. 5.

⁹⁴⁹ Stuart Mortimore, 16 March 2010, pm, pp. 63-64; John Madden, 30 March 2010, pm, pp. 30-40.

⁹⁵⁰ John Madden, 30 March 2010, pm, p. 40.

⁹⁵¹ John Madden, 30 March 2010, pm, pp. 30-40.

⁹⁵² Stuart Mortimore, 16 March 2010, pm, pp. 64-65; John Madden, 30 March 2010, pm, pp. 55-56.

⁹⁵³ John Madden, 30 March 2010, pm, pp. 56-57.

electrical connection, which can create the conditions for overheating⁹⁵⁴. In fact, in this case, it was not a problem⁹⁵⁵.

The connection between the two switches in the laundry

59. The connection between the two isolator switches in the laundry were not properly made. There were lengths of unprotected basic insulation not protected by the outer sheath of the cable and accordingly exposed to mechanical damage⁹⁵⁶.

Note to Chapter 11

I have given effect to the submissions on behalf of Alexander Ross. I have made no finding that he was involved in the installation of cable V, the left hand wall mounted switch in the laundry, the connection between the two isolator switches in the laundry, and the Merlin Gerin circuit breaker.

⁹⁵⁴ Stuart Mortimore, 16 March 2010, pm, p. 67; John Madden, 30 March 2010, am, p. 141; David Millar, 1 April 2010, pm pp. 34-35.

⁹⁵⁵ John Madden, 30 March 2010, pm, pp. 57-58.

⁹⁵⁶ Alexander Ross, 28 January 2010, am, p. 53; Stuart Mortimore, 16 March 2010, pm, pp. 68-69; John Madden, 29 March 2010, am, pp. 113-114, 30 March 2010, pm, pp. 58-59; David Millar, 1 April 2010, am, pp. 29-30.

CHAPTER 12: MAINTENANCE OF THE ELECTRICAL INSTALLATION

Context

Relevant guidance

1. Regulation 4(2) of the Electricity at Work Regulations 1989 provided:-

“As may be necessary to prevent danger, all systems shall be maintained so as to prevent so far as is reasonably practicable such danger.”

The fixed electrical installation at Rosepark was an electrical system which fell within the scope of this provision. Failure to carry out maintenance of the system created a risk of injury due to damage and deterioration of the system⁹⁵⁷.

2. The means by which the system is maintained was a matter for the duty-holder, in this case the partnership who were the employers at Rosepark. However the most common means of doing so was and is by periodic inspection and testing⁹⁵⁸. The Memorandum of Guidance to the Regulations published by the HSE advises that regular inspection of equipment is an essential part of any preventive maintenance programme⁹⁵⁹. The Memorandum of Guidance advised that the frequency at which preventative maintenance required to be carried out is a matter for the judgment of the duty holder⁹⁶⁰.

3. The IEE Regulations as they existed throughout the life of Rosepark Care Home before the fire, specified that electrical installations should be inspected and tested periodically⁹⁶¹. Periodic inspection and testing would involve a person examining the fixed parts of the electrical examination, looking for damage, deterioration, wear and tear and non-compliance with the British Standard. In addition, a sample of the

⁹⁵⁷ John Madden, 31 March 2010, pm, pp. 38-39.

⁹⁵⁸ John Madden, 9 August 2010, am, pp. 117-118.

⁹⁵⁹ John Madden, 31 March 2010, pm, pp. 39-40.

⁹⁶⁰ John Madden, 31 March 2010, pm, pp. 39-40.

⁹⁶¹ 15th edition, Pro 1948, Chapter 63 (p. 106 at bottom right); John Madden, 31 March 2010, am, pp. 93-94.

installation should be tested⁹⁶². In the context of a periodic inspection undertaken in accordance with the IEE Regulations, the electrician undertaking the inspection would require to remove the front cover of a distribution board such as the distribution board in cupboard A2, so that he could visually inspect the inside of the unit. He would inter alia look for loose connections, signs of overheating and damage, wear and tear, ingress of moisture and dust. He would check that the cables are not damaged in any way and that sheath cables enter into the back of the consumer unit so that the insulated conductor is not exposed to damage against the edge of the consumer unit⁹⁶³.

4. At the time when the Home was constructed five years was the default period for periodic inspection and testing, specified in a Note in the IEE Regulations. This would have applied to a care home⁹⁶⁴. In fact, after he had carried out the electrical installation at Croftbank, Mr Ross and a colleague issued a certificate recommending that the system there be inspected and tested within two years.

5. In 1992, in conjunction with the 16th edition of the IEE Regulations, the IEE published a Guidance Note on Inspection and Testing. Table 4A of this Guidance Note⁹⁶⁵ specified five years as the appropriate maximum period between inspections for hospitals. This could reasonably be applied to care homes⁹⁶⁶. The same maximum period was recommended for hospitals in subsequent editions of the IEE Guidance Note, published in June 1995 and 1997⁹⁶⁷.

6. In addition to periodic inspection and testing, the 3rd edition of the IEE Guidance Note on Inspection and Testing contained advice on routine checks. It advised that: “Electrical installations should not be left without any attention for the periods of years that are normally allowed between formal inspections”⁹⁶⁸. Routine

⁹⁶² John Madden 31 March 2010, am, p. 94.

⁹⁶³ Alexander Ross, 28 January 2010, am, pp. 62-63; John Madden, 31 March 2010, am, p. 95, pm, pp. 17-21; David Millar, 1 April 2010, pm, pp. 23-24; Robert Cairney, 2 August 2010, am, pp. 5-6, 14-16.

⁹⁶⁴ Pro 1948, Appendix 16, Note (p. 220 at bottom right); John Madden, 31 March 2010, am, pp. 96-100.

⁹⁶⁵ Pp. 22-23.

⁹⁶⁶ Pro 1417; John Madden, 31 March 2010, pm, pp. 1-5.

⁹⁶⁷ Pro 1418, Pro 1419; John Madden, 31 March 2010, pm, pp. 6-8, 12-16.

⁹⁶⁸ Pro 1419, para. 2.1.4 (p. 32); John Madden, 31 March 2010, pm, pp. 13-14.

checks are an essential part of preventative maintenance of an electrical system⁹⁶⁹. The recommended maximum period between such routine checks for premises such as hospitals was 1 year⁹⁷⁰. Such a check should include an inspection that looks for breakages, wear, deterioration, signs of overheating, missing parts such as covers and screws, accessibility of switchgear, security of enclosure doors, adequate labeling and loose fittings⁹⁷¹. Such a check would not require the removal of the front cover from the distribution board and would accordingly be unlikely to uncover the absence of any grommet or other cable protection at the knockout.

7. A regime of regular visual inspection along the lines recommended in this Guidance Note, while itself a necessary part of any system of preventative maintenance, would not have been an adequate substitute for periodic inspection and testing and would not, on its own, constitute an adequate regime of continuous monitoring and maintenance⁹⁷². A visual inspection which did not involve taking the front cover off the distribution board would be of limited use⁹⁷³. Such an inspection would not meet the requirements of the IEE Regulations as regards periodic inspection and testing⁹⁷⁴. Nor would it satisfy the requirement for maintenance of the electrical system of a care home⁹⁷⁵.

8. IEE Inspection and Testing Guidance Note 3 allowed for periodic inspection and testing to be replaced by an adequate regime of continuous monitoring and maintenance of the installation⁹⁷⁶. This was first introduced as an alternative in the British Standard 2001 and written into the Guidance Note in 2002⁹⁷⁷. A range of options for continual monitoring are available: one could install automatic devices that will monitor the system⁹⁷⁸; an electrician could periodically go round the system with a thermal imaging camera; an electrician could visit frequently and carry out

⁹⁶⁹ John Madden, 31 March 2010, pm, p. 14.

⁹⁷⁰ Table 2.1.5 (p. 34); John Madden, 31 March 2010, pm,

⁹⁷¹ John Madden, 31 March 2010, pm, pp. 43-44.

⁹⁷² Robert Cairney, 2 August 2010, am, pp. 20-21.

⁹⁷³ Robert Cairney, 2 August 2010, am, pp. 15-16.

⁹⁷⁴ Robert Cairney, 2 August 2010, am, p. 16.

⁹⁷⁵ John Madden, 9 August 2010, am, pp. 109-110, 118-119.

⁹⁷⁶ Pro 1420, para. 3.1; Robert Cairney, 2 August 2010, am, pp. 16-17.

⁹⁷⁷ Pro 2122, p. 64; John Madden, 9 August 2010, am, pp. 101, 111-119.

⁹⁷⁸ Robert Cairney, 2 August 2010, am, pp. 16-20; John Madden, 9 August 2010, am, pp. 104-106.

inspections and tests of a subset of the system. A process of periodic visual inspection would not satisfy the requirement for a regime of continuous monitoring⁹⁷⁹.

Work undertaken by Mr Ross

9. Throughout the period from the construction of Rosepark until the fire in January 2004, Mr Ross was in full time employment⁹⁸⁰. From time to time, however, Mr Ross carried out work for the Balmers on a casual basis, being paid cash and without insurance⁹⁸¹. In particular:-

9.1. In July 1993 an application was made for building warrant to create en suite WC facilities for three rooms on the upper floor and two on the lower floor at Rosepark. Mr Ross undertook the electrical work associated with this alteration on a casual basis on his own account⁹⁸².

9.2. In 1996, Mr Ross, along with a colleague, carried out the electrical installation at Croftbank⁹⁸³.

9.3. In about 1998, an additional bedroom (room 37) was created on the lower floor at Rosepark where previously there had been a drugs room⁹⁸⁴. Mr Ross undertook the electrical work associated with this alteration⁹⁸⁵.

9.4. In about 1998 the conservatory was added to the dayroom at Rosepark. Mr Ross undertook the electrical work associated with this alteration⁹⁸⁶.

9.5. He undertook the electrical work for the extension at Croftbank in 1998⁹⁸⁷.

⁹⁷⁹ John Madden, 9 August 2010, am, pp. 104-111.

⁹⁸⁰ Alexander Ross, 26 January 2010, pm, pp. 31-35, 27 January 2010, pm, pp. 3-4.

⁹⁸¹ Alexander Ross, 28 January 2010, am, pp. 35-36.

⁹⁸² Alexander Ross, 27 January 2010, am, pp. 101-102; Thomas Balmer, 30 April 2010, am, pp. 105-108.

⁹⁸³ Alexander Ross, 27 January 2010, am, p. 108; 28 January 2010, am, pp. 32-33.

⁹⁸⁴ Thomas Balmer, 30 April 2010, am, pp. 108-110.

⁹⁸⁵ Thomas Balmer, 30 April 2010, am, pp. 108-112.

⁹⁸⁶ Thomas Blamer, 30 April 2010, am, pp. 112-113.

⁹⁸⁷ Alexander Ross, 28 January 2010, pm, pp. 87-88; Thomas Balmer, 30 April 2010, pm, p. 33.

9.6. He undertook the electrical work for the extension at Croftbank in 2001⁹⁸⁸.

9.7. He undertook some other jobs which he was paid on a one-off basis for, including moving a photocell cable for outside lights and changing it to a time switch⁹⁸⁹.

9.8. Mr Ross also undertook work for both Thomas and Alan Balmer at their homes⁹⁹⁰.

10. Other may have done electrical work at Rosepark on an *ad hoc* basis.

Portable appliance testing

11. For a number of years before the fire, annual testing of the portable appliances was undertaken at Rosepark.

a. In January 1995, Mr Ross undertook an inspection of portable appliances⁹⁹¹.

b. Mr Clark undertook inspection of portable appliances in each year 1998-2003 inclusive (and indeed in previous years)⁹⁹². That included “plug top” testing of the switches in the laundry⁹⁹³.

The fixed electrical installation

⁹⁸⁸ Alexander Ross, 28 January 2010, pm, p. 88; Thomas Balmer, 30 April 2010, pm, p. 33

⁹⁸⁹ Alexander Ross, 27 January 2010, am, pp. 106-107.

⁹⁹⁰ Alexander Ross, 27 January 2010, am, pp. 107-108.

⁹⁹¹ Pro 571, p. 3; Alexander Ross, 27 January 2010, am, pp. 121-126; Thomas Balmer, 30 April 2010, am, pp. 130-133.

⁹⁹² Pro 567; Joseph Clark, 20 January 2010, pm, pp. 50-53, 21 January 2010, am, pp. 6-29; Thomas Balmer, 30 April 2010, am, pp. 130-137.

⁹⁹³ Joseph Clark, 20 January 2010, pm, pp. 53-54.

12. The only checking which was undertaken on the fixed electrical installation between the construction of the Home and the fire in January 2004 was undertaken by Alexander Ross. Mr Ross described what he did as follows:-

“Mr Balmer used to come over on a ... at the start of the New Year with a, perhaps, a bottle and, eh, maybe some pens and calendars and just, eh, just for the fact that I had been doing jobs for him and eh then, if I got a chance I would take a quick wa ... a walk through the building, but nothing, no testing or anything, just like visual thing with a quick walk through just to see there was nothing looking dangerous like sock ... broken sockets or anything like that fashion”⁹⁹⁴.

13. During these walk through:-

13.1. Mr Ross undertook a visual inspection, checking for things like damaged sockets and loose light fittings⁹⁹⁵.

13.2. He might look at the consumer units. He stated that this was just a visual examination⁹⁹⁶. Mr Ross specifically stated that he would neither open the front plastic covers, nor would he unscrew the front face of the board to examine its internal workings⁹⁹⁷ - indeed that he had never opened the plastic doors⁹⁹⁸.

14. Mr Ross did not charge Rosepark Care Home for doing this visual inspection⁹⁹⁹. He neither produced a report on the exercise, nor was he asked to do so¹⁰⁰⁰. Mr Balmer did not ask Mr Ross to produce any records of what he was doing¹⁰⁰¹.

15. At no time did Mr Ross inspect and test the electrical installation at Rosepark in accordance with the IEE Regulations¹⁰⁰². He was unaware of anyone else undertaking

⁹⁹⁴ Alexander Ross, 27 January 2010, am, pp. 104-106.

⁹⁹⁵ Alexander Ross, 27 January 2010, am, pp. 108-109.

⁹⁹⁶ Alexander Ross, 27 January 2010, am, pp. 109-112.

⁹⁹⁷ Alexander Ross, 27 January 2010, am, p. 116.

⁹⁹⁸ Alexander Ross, 28 January 2010, am, p. 58.

⁹⁹⁹ Alexander Ross, 27 January 2010, am, pp. 120-121.

¹⁰⁰⁰ Alexander Ross, 27 January 2010, am, p. 144

¹⁰⁰¹ Thomas Balmer, 7 May 2010, am, pp. 113-114.

¹⁰⁰² Alexander Ross, 28 January 2010, am, pp. 17-18.

such an inspection and test¹⁰⁰³. Mr Ross understood the nature of a periodic inspection and test under the IEE Regulations and, in particular, that this would involve opening up the fuse boxes¹⁰⁰⁴. He gave evidence that he was never asked to undertake a “full test or inspection”. Such an exercise would have taken some time, would require him to get hold of the appropriate instruments, and was not the sort of exercise that could be done without a specific instruction¹⁰⁰⁵. Apart from the portable appliance test, Mr Ross did not carry out any other inspection or testing at Rosepark for which he made a charge¹⁰⁰⁶.

16. Alexander Ross undertook an inspection of limited scope on an informal basis. No records were kept. Thomas Balmer gave evidence that it was recommended to him in a casual conversation with an unnamed individual employed or sub-contracted by Star Electrical (7 May 2010 am pp 122 to 123) that it was better to have a qualified electrician to do a visual inspection than have a system of inspection and testing. He indicated that he checked the Regulations which suggested that monitoring was a good system to have in place.

17. It is clear that Alexander Ross did not take off the distribution board to expose the wiring behind¹⁰⁰⁷. There was no adequate regime of inspection and testing of the fixed electrical installation¹⁰⁰⁸. Continuous monitoring as envisaged by the IEE Regulations was something distinct from a visual inspection. A process of regular visual inspections would not satisfy either the IEE Guidance (John Madden 9 August 2010 am 104-144). On no view was what Thomas Balmer described as an adequate regime of inspection and testing of a fixed electrical installation in terms of IEE Regulations.

18. Following the fire, a series of documents was recovered from the filing cabinet in the Balmers’ office at Rosepark.

¹⁰⁰³ Alexander Ross, 28 January 2010, am, p. 18.

¹⁰⁰⁴ Alexander Ross, 27 January 2010, am, pp. 136-137.

¹⁰⁰⁵ Alexander Ross, 27 January 2010, am, pp. 111-113, 138-139.

¹⁰⁰⁶ Alexander Ross, 27 January 2010, am, p. 121.

¹⁰⁰⁷ Thomas Balmer, 30 April 2010, pm, pp. 6-8, 67-74.

¹⁰⁰⁸ Robert Cairney, 2 August 2010, am, pp. 15-16; John Madden, 9 August 2010, am, pp. 104-111, 118-119.

18.1. A document in the following terms (Pro 215, p. 60) was recovered from a wallet file with a label on the front “Comtec Systems”, which was found in a filing cabinet in the Balmers’ office¹⁰⁰⁹:-

“Alex Ross ... electrical

126 The Loaning

Motherwell

0698 261738

24 hr electrical care.

Rosepark Nursing Home
261 New Edinburgh Road
Uddingston G71 6ll

Dear Sirs

Thankyou for your enquiry of 20th January 1993 regarding 24 hr electrical cover for above nursing home.

I will be delighted to provide 24hr electrical cover. As your building is a new build I suggest our cover be on a call-out basis and look forward to working with Rosepark Nursing Home.

Yours faithfully

[Manuscript “Alex Ross”]

Alex Ross”

18.2. A document in the following terms (Pro 215, p. 6) was also recovered from the same wallet file¹⁰¹⁰:

“Alec Ross ELECTRICAL

24 Electrical care

126 The Loaning

Motherwell

2698 268926

¹⁰⁰⁹ Pro 215, p. 60; Thomas Balmer, 30 April 2010, am, pp. 122-123; Carol Ann Brown, 12 August 2010, am, p. 8.

¹⁰¹⁰ Pro 215, p. 6; Thomas Balmer, 30 April 2010, am, p. 122; Carol Ann Brown, 12 August 2010, am, p. 8.

Rosepark Nursing Home
261 New Edinburgh Road
Uddingston G71 6LL

Dear Sir

Thankyou for your enquiry of 20th January 1993 regarding 24Hr electrical cover.

I confirm my acceptance to cover Rosepark Nursing Home and all electrical work therein. As you are a new build I consider service on a callout basis would suffice.

Looking forward to working together.

Yours faithfully

[Manuscript 'Alec Ross']

Alec Ross

18.3. The following document (Pro 583) was found in the filing cabinet in the Balmers' office¹⁰¹¹:-

“

3 yr Contract

Alex. Ross electrical

The loaning

Motherwell.

01698 261738

Rosepark Nursing Home
261 New Edinburgh Road
Uddingston

20th January 2000

Dear Tom

Rosepark & Croftbank House Nursing Homes

¹⁰¹¹ Carol Ann Brown, 12 August 2010, am, p. 9.

Thank you for valued enquiry regarding Electrical Cover & Maintenance for your care homes.

I would be delighted to continue 24 hour cover as follows and offer the following cover for Three years commencing 1st February 2000. This extended contract allows me to organize my work schedules and trust you will find this an advantage.

Annual Inspection of all electrical installations, earth bonding and all portable appliances and plug top testing inspected as per electrical schedule.

As agreed charges will be £25.00 per hour and £35.00 for out of hours call and trust his meet with your requirements.

New installation and alterations will be priced prior to work commencing.

Yours sincerely

[Manuscript "Alex Ross"]

Alex Ross

18.4. The following document (Pro 215, p. 5) was also found in the Comtec systems file in the filing cabinet in the Balmers' office¹⁰¹²:-

"Alex. Ross Electrical

126 The Loaning

Motherwell

ML1 3LU

01698 261738

Rosepark Nursing Home
261 New Edinburgh Road
Uddingston

1st February 2003

Dear Tom

Rosepark & Croftbank House Nursing Homes

¹⁰¹² Carol Ann Brown, 12 August 2010, am, pp. 7-8.

Thank you for valued enquiry regarding Electrical & Maintenance cover for your care homes.

I am delighted to continue 24 hour cover and offer you a three year contract from above date on the following basis.

Annual inspection of all electrical installations, check all earth bonds and current flow.

As agreed charges to be £25.00 per hour and £35.00 for out of hours call and trust this meets with your requirements.

Additions and alterations will be priced prior to work commencing.

Yours sincerely,

[Manuscript "Alex Ross"]

Alex. Ross"

19. All of these documents were prepared by Mr Balmer at Rosepark¹⁰¹³.

19.1. The apparent signature on the first of these documents (Pro 215, p. 60) was indeed written by Mr Ross.

19.1.1. Handwriting analysis disclosed that this was likely to have been written by Mr Ross¹⁰¹⁴.

19.1.2. Mr Ross described the circumstances in which he signed this document¹⁰¹⁵.

19.2. On the other hand, the manuscript words "Alex Ross" in the documents dated 20 January 2000 and 1 February 2003 were appended by Mr Balmer.

¹⁰¹³ Alexander Ross, 27 January 2010, am, p. 118 (Pro 215, p. 6); Thomas Balmer, 30 April 2010, am, p. 127, pm, p. 49.

¹⁰¹⁴ Jonathan Morris, 11 June 2010, am, pp. 105-106

¹⁰¹⁵ Alexander Ross, 27 January 2010, am, pp. 119-120.

19.2.1. Handwriting analysis disclosed that it was unlikely that these words were written by Alexander Ross¹⁰¹⁶.

19.2.2. Thomas Balmer accepted that he had written the manuscript words “Alex Ross” where they appear in the documents dated 20 January 2000 and 1 February 2003, in circumstances outlined below¹⁰¹⁷.

19.2.3. Although Mr Ross was initially prepared to accept that these apparent signatures looked like his¹⁰¹⁸ and indeed, accepted that he had signed these documents¹⁰¹⁹, his evidence in that regard is unreliable. It was apparent that he was puzzled by various features of both these documents.

20. The background to these documents was this. At some point after Mr Ross had undertaken the work in July 1993 in connection with the new en suite facilities, Thomas Balmer asked Mr Ross if he could provide him with 24 hour emergency cover. Mr Ross agreed to this¹⁰²⁰. Mr Balmer told Mr Ross that he needed something from him in writing¹⁰²¹. Mr Balmer drafted the first of these documents (Pro 215, p. 60)¹⁰²² and brought it to Mr Ross’ house where Mr Ross signed it¹⁰²³. The name “Alex Ross Electrical” was Mr Balmer’s suggestion, to which Mr Ross agreed¹⁰²⁴. There was no such entity¹⁰²⁵.

21. Notwithstanding the terms of these documents, Mr Ross was at all times in full employment and was accordingly not in a position to provide 24 hour cover. When Mr Balmer first asked him to provide 24 hour cover, Mr Ross had raised this with Mr Balmer. They discussed the fact that Mr Ross was working in full time

¹⁰¹⁶ Jonathan Morris, 11 June 2010, am, pp. 109-112;

¹⁰¹⁷ Thomas Balmer, 30 April 2010, pm, p. 51, 64; 7 May 2010, am. Pp. 105-107.

¹⁰¹⁸ Alexander Ross, 27 January 2010, am, pp. 129, 144, 28 January 2010, am, pp. 1-13.

¹⁰¹⁹ Alexander Ross, 27 January 2010, am, p. 130, pm, p. 8.

¹⁰²⁰ Alexander Ross, 27 January 2010, am, pp. 102-103.

¹⁰²¹ Thomas Balmer, 30 April 2010, am, p. 124

¹⁰²² Alexander Ross, 27 January 2010, am, pp. 102-103.

¹⁰²³ Alexander Ross, 27 January 2010, am, pp. 119-120.

¹⁰²⁴ Alexander Ross, 27 January 2010, am, p. 126; Thomas Balmer, 7 May 2010, am, p. 103.

¹⁰²⁵ Alexander Ross, 28 January 2010, pm, pp. 44-45.

employment and could not possibly give him 24 hour cover. Mr Balmer told Mr Ross that it wouldn't matter because it would probably never be required¹⁰²⁶.

22. Mr Balmer stated¹⁰²⁷ that "24 hour cover was never really required. I think it's a, it could be elected as a misprint. It was really an on-call cover. We never ever ... I've never known in any of our places over the years to have a reason to call electricians outwith daylight hours, shall we say." He stated that a need for on-call cover would probably arise more critically during the day¹⁰²⁸. When Mr Balmer was asked how, if Ross was employed elsewhere during the day, he could provide that sort of cover, he said this¹⁰²⁹: "Well, we never, ever had a problem or a concern but I can see that it may be a concern but, we would have contingency plans if there was something critical happened, we would call in any emergency electrician, or whatever, if required to do so."

23. Mr Ross thought he was just "signing up ... to help Mr Balmer"¹⁰³⁰. Mr Balmer told him that he needed an electrician in place to obtain his certificate for operating the Home¹⁰³¹. Mr Ross saw these letters as "just a way of helping him out, to, to give them, that I would be there if he needed me and he wanted to make it look official ... to make it look official, that he had someone in place"¹⁰³².

24. The relationship between the first two of these documents (Pro 215, p. 6 and p. 60) is unclear. Mr Balmer thought that one of them was a renewal of the other, in which the date had not been changed¹⁰³³.

25. The third document, dated 20 January 2000 (Pro 583) was prepared by Mr Balmer and was never seen by Mr Ross.

¹⁰²⁶ Alexander Ross, 27 January 2010, am, pp. 103-104, 120.

¹⁰²⁷ Thomas Balmer, 30 April 2010, am, p. 125.

¹⁰²⁸ Thomas Balmer, 30 April 2010, am, p. 126.

¹⁰²⁹ Thomas Balmer, 30 April 2010, am, p. 126.

¹⁰³⁰ Alexander Ross, 27 January 2010, am, p. 146.

¹⁰³¹ Alexander Ross, 28 January 2010, am, pp. 41-42

¹⁰³² Alexander Ross, 28 January 2010, pm, p. 47.

¹⁰³³ Thomas Balmer, 7 May 2010, am, pp. 103-104.

25.1. Mr Balmer stated that he remembered trying to reach Mr Ross personally without success as he and his wife were going off on holiday. He needed the document in place so he spoke to Mr Ross on the phone and said “Alex, time for renewal. Are you happy enough for me to sign you back up for your electrical cover as we are going on holiday?” Mr Ross agreed¹⁰³⁴. He later confirmed that if he were having a discussion with Mr Ross of that sort, the way he would put it to Mr Ross was whether he was willing to carry on providing cover and that it would be reasonable to assume there would be no specific discussion in such a conversation about annual inspection of electrical installations and the checking of earth bonding and so on¹⁰³⁵.

25.2. Mr Ross’ evidence in relation to this document was that, as far as he was concerned what he was agreeing to was “just what it had been in the past, that I would be available if required and that any other work would be done separately”¹⁰³⁶. He did not remember discussing the document. While he said that “it was presented to me and had a look at it and signed it”¹⁰³⁷ that evidence is unreliable, given the evidence that he did not, in fact, sign this document.

26. There are unsatisfactory features of this document:-

26.1. It is a markedly different document from the previous document. The terms of the document in fact bore, in their terms, to do much more than sign Mr Ross back up to continue the previous arrangement. In particular, they bore to sign Mr Ross up to annual inspection of the electrical installation, something which, on Mr Balmer’s own account, was done without Mr Ross’ knowledge or consent.

26.2. The contractual services bear to include “portable appliance and plug top testing”. In fact, Mr Clark had been undertaking the portable appliance testing at Rosepark for several years. Mr Balmer accepted that he had no expectation that Mr Ross would be carrying out any portable appliance testing at that

¹⁰³⁴ Thomas Balmer, 30 April 2010, pm, pp. 49-50; 7 May 2010, am, pp. 105-106.

¹⁰³⁵ Thomas Balmer, 30 April 2010, pm, pp. 64-65.

¹⁰³⁶ Alexander Ross, 27 January 2010, am, pp. 130, 141.

¹⁰³⁷ Alexander Ross, 27 January 2010, am, pp. 141-142.

time¹⁰³⁸. Mr Ross confirmed that after 2000 he did not carry out any portable appliance and plug top testing at Rosepark¹⁰³⁹. Mr Balmer accepted that this document was misleading in this respect¹⁰⁴⁰.

26.3. The document bears to “continue 24 hour cover”. Mr Ross had never been in a position to provide 24 hour cover, and continued to be in no position to provide 24 hour cover. Mr Balmer stated that this should have read “on call cover”¹⁰⁴¹. When it was put to him that Mr Ross was in no position to provide on call cover either, his response was “Well depending the, the severity of the emergency, of which there, there weren’t any at all, ehm, so it’s very hard to, ehm, give you an answer to that one”¹⁰⁴². He accepted that the document was in this regard misleading¹⁰⁴³.

26.4. Mr Balmer did not know whether Mr Ross had ever charged for any work under this agreement. Nor could he say whether as at the date of the agreement Mr Ross was, in fact, carrying out any inspection of the electrical installation¹⁰⁴⁴.

27. The fourth document, dated 1 February 2003 (Pro 215, p. 5), was also prepared by Mr Balmer and never seen by Mr Ross. Mr Balmer stated that in late 2002, Mr Ross was doing electrical work for Mr Balmer at home, and alluded to the fact that he was still available to do that and would be all right to continue with the cover, so Mr Balmer signed that document as well¹⁰⁴⁵.

28. There are unsatisfactory features about this document:

28.1. The checking of “current flow” was not something which would be done in relation to a fixed electrical installation, or in the context of inspection and testing of a fixed electrical installation¹⁰⁴⁶. Mr Ross himself when shown this

¹⁰³⁸ Thomas Balmer, 30 April 2010, pm, p. 54.

¹⁰³⁹ Alexander Ross, 27 January 2010, am, p. 135.

¹⁰⁴⁰ Thomas Balmer, 7 May 2010, am, p. 110.

¹⁰⁴¹ Thomas Balmer, 30 April 2010, pm, p. 55.

¹⁰⁴² Thomas Balmer, 30 April 2010, pm, pp. 55-56.

¹⁰⁴³ Thomas Balmer, 7 May 2010, am, p. 107.

¹⁰⁴⁴ Thomas Balmer, 30 April 2010, pm, pp. 56-59.

¹⁰⁴⁵ Thomas Balmer, 7 May 2010, am, p. 106.

¹⁰⁴⁶ John Madden, 31 March 2010, pm, pp. 58-59.

letter did not recall that provision, and said that it looked “a bit strange”¹⁰⁴⁷. When asked what the phrase meant, he said “It doesn’t mean anything. I know what a current flow is but it’s not the type of thing you would ... you would maybe ... you would perhaps measure it but it just seems a bit alien to testing and inspection to me”¹⁰⁴⁸.

28.2. Mr Balmer explained that reference as relating to a specific piece of work which Mr Ross had undertaken at Croftbank House when he had advised that a heavier circuit breaker was required to take the load from a new washing machine¹⁰⁴⁹. He accepted that this was not something which would, in fact, be required as part of an annual inspection of all electrical installation and stated that it would be considered additional work¹⁰⁵⁰.

28.3. Although the letter purported to “continue 24 hour cover” Mr Ross had not been providing 24 hour cover at the time when this document was signed¹⁰⁵¹. Nor was there any expectation that he would be providing 24 hour cover during the lifetime of the document¹⁰⁵². The document was, in this regard, as Mr Balmer accepted, misleading¹⁰⁵³.

28.4. Mr Balmer had no recollection of Mr Ross invoicing him any charges under the February 2003 document¹⁰⁵⁴.

29. Mr Ross did not understand at any time that he was committing himself to carry out an examination the result of which would satisfy the IEE Regulations¹⁰⁵⁵.

30. These were documents which would be made available to inspectors from the Health Board and Care Commission¹⁰⁵⁶.

¹⁰⁴⁷ Alexander Ross, 27 January 2010, am, p. 146

¹⁰⁴⁸ Alexander Ross, 27 January 2010, am, pp. 147-148.

¹⁰⁴⁹ Thomas Balmer, 30 April 2010, pm, pp. 60-62.

¹⁰⁵⁰ Thomas Balmer, 30 April 2010, pm, pp. 62-63; 7 May 2010, am, pp. 110-111. .

¹⁰⁵¹ Alexander Ross, 28 January 2010, pm, pp. 45-46; Thomas Balmer, 30 April 2010, pm, p. 66.

¹⁰⁵² Thomas Balmer, 30 April 2010, pm, p. 66.

¹⁰⁵³ Thomas Balmer, 7 May 2010, am, p. 107.

¹⁰⁵⁴ Thomas Balmer, 30 April 2010, pm, p. 66.

¹⁰⁵⁵ Alexander Ross, 27 January 2010, am, p. 145

¹⁰⁵⁶ Thomas Balmer, 7 May 2010, am, p. 107; 10 May 2010, am, pp. 51-55, 58-61.

Note on Chapter 12

It was accepted of behalf of the Balmer Partnership the means by which the electrical installation was maintained was a matter for them as duty holders and employers. It was accepted that, whilst Mr Balmer appeared to have set in train a regime of what could reasonably be described as casual inspections, this did not satisfy the requirements of IEE Guidance and was not an adequate system of inspection and testing of the fixed electrical installation. It was pointed out that throughout the period Alexander Ross had carried out significant electrical work in the Care Home, in Croftbank and in the private homes of Thomas and Alan Balmer. It was accepted that he was in full time employment and, as a result, not in a position to give strict 24 hour cover as is stated in these documents.

It is of significance (see paragraph 16) that Thomas Balmer gave evidence that it was recommended to him in a casual conversation with an unnamed individual employed or subcontracted by Star Electrical that it was better to have a qualified electrician to do a visual inspection than have a system of inspection and testing. He indicated that he checked the Regulations which suggested that monitoring was a good system to have in place.

I had given effect to the submissions of Alexander Ross in respect of the electrical installation and the maintenance of the electrical installation.

CHAPTER 13: CUPBOARD A2

General description

1. Cupboard A2 was located in corridor 4 just before the corner (i.e. in the corridor running from the central stairwell/lift area to the corner) on the righthand side¹⁰⁵⁷. The cupboard had double wooden doors which opened out the way¹⁰⁵⁸. These doors looked the same as the doors of a cupboard in the equivalent location on the lower floor which is shown in production 886C¹⁰⁵⁹. They were not kept locked¹⁰⁶⁰. The left hand door was snibbed shut with a bolt and the righthand door closed onto a latch but not locked¹⁰⁶¹.

2. Within the cupboard there were three open shelves and above them an internal cupboard. Production 914A is a photograph of the cupboard taken after the fire. It shows the numbering applied to the various shelves during the investigation:-

Shelf 1: the ground

Shelf 2: the first open shelf above the ground

Shelf 3: the middle open shelf

Shelf 4: the topmost open shelf

Shelf 5: the lower shelf within the inner cupboard

Shelf 6: the upper shelf within the inner cupboard

3. The open shelves did not extend across the whole width of the cupboard; rather, they extended from the northern (righthand wall) but a gap was left towards the southern (lefthand wall) where there the electrical distribution board, which has

¹⁰⁵⁷ See Chapter 3, para. 17.

¹⁰⁵⁸ Allison Cumming, 18 November 2009, pm, pp. 92, 94; Yvonne Carlyle, 27 November 2009, am p. 19.

¹⁰⁵⁹ Allison Cumming, 18 November 2009, pm, pp. 96-97; Yvonne Carlyle, 27 November 2009, am, p. 19.

¹⁰⁶⁰ Allison Cumming, 18 November 2009, pm, p. 95; Yvonne Carlyle, 27 November 2009, am, p. 18; Sadie Meaney, 22 February 2010, am, p. 68; Thomas Balmer, 4 May 2010, pm, p. 67.

¹⁰⁶¹ Phyllis West, 23 November 2009, pm, pp. 40-44; Sadie Meaney, 22 February 2010, am, pp. 74-75; Thomas Balmer, 4 May 2010, pm, p. 67.

already been described¹⁰⁶², was located. The shelves were screwed down onto brackets¹⁰⁶³.

4. Internally, the ceiling of the cupboard was above the level of the ceiling in the corridor outside.

5. The cupboard was connected to the ventilation system. The vent to that system was towards the northern (righthand) end of the partition above the doors. The vent can be seen in production 912N¹⁰⁶⁴.

The Internal cupboard

6. The top of the internal cupboard did not reach to the ceiling of the cupboard. The internal cupboard had two shelves: the base of the internal cupboard and an upper shelf. The upper shelf was open to the ceiling because the cupboard unit had no top¹⁰⁶⁵. The internal cupboard had two doors which were kept locked.

7. The internal cupboard had been installed at the request of the Health Board so that toiletries could be kept under lock and key¹⁰⁶⁶. It was kept locked¹⁰⁶⁷. The key was kept on the wall beside the internal cupboard inside the main cupboard high up¹⁰⁶⁸.

8. The internal cupboard contained shampoos, aerosols, and toiletries¹⁰⁶⁹. Sadie Meaney had given an instruction that shampoos etc should be kept in this cupboard¹⁰⁷⁰.

Contents of the cupboard

¹⁰⁶² Chapter 11, paras. 15 ff.

¹⁰⁶³ Stuart Mortimore, 16 March 2010, am, p. 95.

¹⁰⁶⁴ Stuart Mortimore, 2 August 2010, pm, p. 23.

¹⁰⁶⁵ Stuart Mortimore, 2 August 2010, pm, pp. 21-22.

¹⁰⁶⁶ Sadie Meaney, 18 February 2010, am, pp. 134-135; Thomas Balmer, 4 May 2010, pm, pp. 66-67.

¹⁰⁶⁷ Allison Cumming, 18 November 2009, pm, pp. 95-96; Yvonne Carlyle, 27 November 2009, am, p. 18; Sadie Meaney, 18 February 2010, am, p. 135.

¹⁰⁶⁸ Phyllis West, 23 November 2009, pm, pp. 41; Yvonne Carlyle, 27 November 2009, am, p. 18.

¹⁰⁶⁹ Yvonne Carlyle, 27 November 2009, am, p. 18.

¹⁰⁷⁰ Sadie Meaney, 22 February 2010, am, pp. 68-69.

9. David Robertson, Forensic Scientist, along with his colleague Karen Walker, excavated the contents of both the cupboard and internal cupboard on 6th February 2004¹⁰⁷¹.

10. On the floor (Shelf 1), on the right hand side under the lowest shelf, he found a chamber pot, bowl and wooden coat hanger. There were also containers of E45 cream, a large safety pin and knitting needles. On the left hand side, to the rear, there was found the remains of a foot spa and cardboard box. The remains of some clear plastic boxes were found attached to the carpet¹⁰⁷². There would have been knitting materials on top of the foot spa on the left hand side of the cupboard, and the distribution box would be immediately above¹⁰⁷³. Mrs McCondichie thought that the dart board was kept at the bottom of the cupboard along with games like carpet bowls.

11. On the lowest shelf (Shelf 2), on the left side, Mr Robertson found some beads, paper and a blue bean bag. Also on that shelf were melted pencils and felt tip pens, glue, postcards, tapes and a CD, an upturned tea candle, fake flowers, ribbons, body wipes, Kirby grips, a sewing box, a soft darts game, a plastic target, and a board game¹⁰⁷⁴.

12. On the lowest shelf, (Shelf 2) on the right hand side, was a plastic crate (melted on the left side), a games compendium, folder, papers, stacks of photographs in a plastic bag on the right side of the crate, photograph frames in a bin liner, a plastic container with numbers, a jigsaw, a metal container of dominoes, playing cards, markers, a padded envelope with bingo and a book of party games¹⁰⁷⁵.

13. On the middle open shelf, (Shelf 3) on the right side, were found latex gloves, a white plastic container; then, moving across the shelf, charred electrical hair tongs, a plastic bag of charred “McDonalds Economy Pads” behind which was a white ceramic oil burner, a glass bottle of Acetone with a plastic cap, 50ml., intact, cosmetics, eye shadow, lipstick, nail varnish, a charred plug cassette, videos and

¹⁰⁷¹ David Robertson, 9 February 2010, pm, p60.

¹⁰⁷² David Robertson, 9 February 2010, pm, pp78-80; Pro. 1797, p74;

¹⁰⁷³ Margaret McCondichie, 8 February 2010, am, pp104-105

¹⁰⁷⁴ David Robertson, 9 February 2010, pm, pp80-82.

¹⁰⁷⁵ David Robertson, 9 February 2010, pm, pp82-83; Pro.1797, p75;

jigsaws¹⁰⁷⁶. On the same shelf there were also fragments of glass which had originally been an eau de cologne bottle¹⁰⁷⁷. The latter was a 250 ml bottle of Bronnley Blue Poppy body splash¹⁰⁷⁸. This cologne contained about 85% ethanol and the mixture had a flash point of about 17 degrees Centigrade¹⁰⁷⁹.

14. On the middle open shelf (Shelf 3), on the left side, were found a charred “mosaiccolour” board game on top of a stack of games¹⁰⁸⁰. Mrs McCondichie kept song sheets and board games on this shelf¹⁰⁸¹.

15. On the topmost open shelf (Shelf 4), on the left side, in a cardboard box, were found dominoes, solitaire, two bottles of Budweiser, a shower scrunchie, a jigsaw, a box of whisky fudge, Turkish delight, some bath lotion/gel and butterfly earrings. On the left most age was a 2 speaker cassette player¹⁰⁸².

16. On the topmost open shelf, (Shelf 4) on the right side, were found Christmas cards, postcards, paper folders, hymn sheets, books and a catalogue¹⁰⁸³. Mrs McCondichie thought that there would have been paperbacks on the shelf immediately below the internal cupboard¹⁰⁸⁴.

17. On the lower shelf of the internal cupboard (Shelf 5), on the left side, there was found a red plastic container with radox bottles (in addition to hairspray, and shaving foam – see below)¹⁰⁸⁵.

18. On the lower shelf of the internal cupboard (Shelf 5), on the right side, were found toothpaste (their boxes intact), toothbrushes and cotton buds, all inside a red plastic tray/basket; and a box of tissues and paper towels, a medicated cleanser bottle, calamine lotion, baby bath lotion, and Vicks, all inside a white plastic basket¹⁰⁸⁶.

¹⁰⁷⁶ David Robertson, 9 February 2010, pm, pp83-84; Pro. 1797, p75;

¹⁰⁷⁷ Karen Walker, 9 August 2010, am, pp. 93-96.

¹⁰⁷⁸ Stuart Mortimore, 2 August 2010, pm, pp. 25-26, 31-32.

¹⁰⁷⁹ Stuart Mortimore, 2 August 2010, pm, pp. 26-27

¹⁰⁸⁰ David Robertson, 9 February 2010, pm, p86; Pro. 1797, p75;

¹⁰⁸¹ Margaret McCondichie, 8 February 2010, am, pp106-107;

¹⁰⁸² David Robertson, 9 February 2010, pm, p89; Pro. 1797, p75;

¹⁰⁸³ David Robertson, 9 February 2010, pm, pp89-90; Pro. 1797, p76;

¹⁰⁸⁴ Margaret McCondichie, 8 February 2010, am, pp108-109;

¹⁰⁸⁵ David Robertson, 9 February 2010, pm, p90; Pro. 1797,

¹⁰⁸⁶ David Robertson, 9 February 2010, pm, p91; Pro. 1797, p77;

19. Also on the lower shelf of the internal cupboard were the remains of red and white plastic trays, a white plastic container containing cotton buds, comb, shaving brush, nail brush, 2 boxes of tights (as well as an exploded can of hairspray and cans of shaving foam – see below)¹⁰⁸⁷.

20. On the top shelf of the internal cupboard (Shelf 6), on the left side, were found toiletries, shampoo/conditioner, foam bath; and, in the centre, the remains of a smoke detector¹⁰⁸⁸.

21. On the top shelf of the internal cupboard (Shelf 6), on the right side, were found pieces of plastic inside a cardboard box, cardboard, plastic bottles, suntan cream, Vaseline lotion, and a melted vent cover¹⁰⁸⁹

Aerosols in the cupboard

22. At the time of the fire there was a significant quantity of aerosol cans in cupboard A2¹⁰⁹⁰. These were as follows:-

(a) Label 627 is the metal body of a single aerosol can. The can is intact apart from the absence of the top (i.e. the actuator mechanism)¹⁰⁹¹. Production 836B is a photograph of Label 627¹⁰⁹². Following the fire Label 627 was found within debris on the left hand side of Shelf 1 (i.e. on the floor)¹⁰⁹³. It may be seen in situ in production 914L¹⁰⁹⁴. Having regard to its location within debris on the floor, it cannot be assumed that this aerosol was in this location before the fire: it could have fallen from a higher shelf¹⁰⁹⁵.

¹⁰⁸⁷ David Robertson, 9 February 2010, pm, pp91-92; Pro. 1797, p77;

¹⁰⁸⁸ David Robertson, 9 February 2010, pm, p92; Pro. 1797, p77;

¹⁰⁸⁹ David Robertson, 9 February 2010, pm, p92; Pro. 1797, p77;

¹⁰⁹⁰ For evidence about aerosol cans generally, and the role that they played in the development of the fire, see Chapter 34 (formerly 29).

¹⁰⁹¹ Christopher Martin, 30 July 2010, am, pp. 55-56; Karen Walker, 9 August 2010, am, p. 69, Pro 836B.

¹⁰⁹² Karen Walker, 9 August 2010, am, p. 69.

¹⁰⁹³ Karen Walker, 9 August 2010, am, pp. 68-70.

¹⁰⁹⁴ Karen Walker, 9 August 2010, am, pp. 69-70.

¹⁰⁹⁵ Karen Walker, 9 August 2010, am, pp. 75-76.

(b) Label 628 comprises the metal bodies of two aerosol cans. These are intact apart from the absence of whatever would have been round the aperture on top¹⁰⁹⁶. The base of the smaller can had bellowed out¹⁰⁹⁷. Following the fire they were also found on the left hand side of Shelf 1 (i.e. on the floor)¹⁰⁹⁸. Productions 843A and 843B are photographs of these cans and they may be seen in production 843D¹⁰⁹⁹. These cans may be seen in situ in production 333E¹¹⁰⁰. Having regard to their location within debris on the floor, it cannot be assumed that these aerosols were in this location before the fire: they could have fallen from a higher shelf¹¹⁰¹.

(c) Label 631 is part of the body of an aerosol can with a blue base. Following the fire it was found on the right side of Shelf 1 (i.e. on the floor). Productions 847D and E are photographs of this aerosol can. It may be seen in situ in production 847A¹¹⁰². Having regard to its location within debris on the floor, it cannot be assumed that this aerosol was in this location before the fire: it could have fallen from a higher shelf¹¹⁰³.

(d) Part of another aerosol can was found embedded in the floor carpet¹¹⁰⁴.

(e) Label 629 is the body of an aerosol can. It has a large gash in its side. Production 819B is a photograph of this aerosol can and it may be seen in production 819A and 910O. It was found in the middle of Shelf 3 (i.e. the middle open shelf)¹¹⁰⁵.

(f) Label 487 is a ruptured aerosol can (formerly containing hairspray) found on Shelf 5 (i.e. the lower of the shelves within the inner cupboard). Production 836D is a photograph of this aerosol can. It may be seen in situ in

¹⁰⁹⁶ Karen Walker, 9 August 2010, am, p. 71; Pros 843A and B.

¹⁰⁹⁷ Christopher Martin, 30 July 2010, am, pp. 58-59.

¹⁰⁹⁸ Karen Walker, 9 August 2010, am, pp. 72-74, under reference to Pro 333E.

¹⁰⁹⁹ Karen Walker, 9 August 2010, am, p. 71.

¹¹⁰⁰ Karen Walker, 9 August 2010, am, pp. 72-74.

¹¹⁰¹ Karen Walker, 9 August 2010, am, pp. 75-76.

¹¹⁰² Karen Walker, 9 August 2010, am, pp. 74-75.

¹¹⁰³ Karen Walker, 9 August 2010, am, pp. 75-76.

¹¹⁰⁴ Karen Walker, 9 August 2010, am, pp. 76-77 under reference to Label 482.

¹¹⁰⁵ Karen Walker, 9 August 2010, am, pp. 78-80.

productions 913O and 913Q¹¹⁰⁶, where it can be seen at the back just to the right of the midline of Shelf 5¹¹⁰⁷.

(g) Label 486 comprises: a multipack of eleven aerosol cans of Insette hairspray shrink-wrapped together in clear plastic; and (ii) several other cans of shaving foam and hairspray. These were found on the left hand side of Shelf 5 (i.e. the lower of the shelves within the inner cupboard). Production 844A is a photograph of these cans. The aerosols within the shrink wrap did not appear to have been subjected to excessive heat. When examined by Mr Martin in June 2010, the bottom crimps of the Insette aerosols within the shrinkwrap were corroded but the top crimps were in very good condition and could still operate to discharge the contents of the aerosols. Mr Martin inferred that this was because the top crimps had been covered by the cap and so had not been exposed to so much wetness in storage. On some of the loose aerosols contents had been discharged from the top crimp. This appeared to have happened since the fire, since the discharged lacquer appeared clear and above the smoke damaged aerosol¹¹⁰⁸.

(h) Label 488 includes at least four aerosol cans of shaving foam and some other aerosol cans. These are shown in production 839A. They were found on Shelf 5, the lower shelf of the inner cupboard. The crimps of these aerosols were intact. When examined in June 2010, they appeared to be in good condition apart from general rust which could have occurred during storage¹¹⁰⁹.

(i) Label 490 includes a quantity of aerosol cans of Sabre shaving foam which were also found on Shelf 5, the lower shelf of the inner cupboard. These may be seen in production 834C¹¹¹⁰. They were of steel construction¹¹¹¹. When examined by Mr Martin in June 2010, some of these cans exhibited corrosion and were showing holes. The corrosion could have occurred during storage¹¹¹².

¹¹⁰⁶ Karen Walker, 9 August 2010, am, pp. 81-82

¹¹⁰⁷ Karen Walker, 9 August 2010, am, pp. ; Christopher Martin, 30 July 2010, am, pp. 89-90.

¹¹⁰⁸ Karen Walker, 9 August 2010, am, pp. 82-87.

¹¹⁰⁹ Karen Walker, 9 August 2010, am, pp. 87-93; Christopher Martin, 30 July 2010, am, pp. 82-89.

¹¹¹⁰ Karen Walker, 9 August 2010, am; Christopher Martin, 30 July 2010, am, pp. 91-94,

¹¹¹¹ Christopher Martin, 30 July 2010, am, pp. 65-67.

¹¹¹² Christopher Martin, 30 July 2010, am, p. 69.

CHAPTER 14: CROSS-CORRIDOR FIRE DOORS

Location of cross-corridor fire doors

1. On the upper floor, fire doors were located at the following locations¹¹¹³:
 - 1.1. Between the foyer area and the corridor containing the bedrooms.
 - 1.2. On either side of the central stairwell.
 - 1.3. Between bedrooms 18 and 17.
 - 1.4. At the entry to the south-west stairwell.

Nature of the fire doors

2. All of these doors were solid – none had a glazed panel. All but the door into the south-west stairwell could be held open on a magnetic catch, which would release in the event of the fire alarm sounding. In that event the door would be closed by a self-closing device fitted at the top of the door. Each of the doors swung one way only¹¹¹⁴.

Changes to the cross-corridor fire doors

3. Initially, none of the fire doors into the stairwells were held open on magnetic hold-open devices. Such devices were added at the doors into the central stairwell shortly after the home opened at the request of the proprietors.
 - 3.1. The MISC 6 form, dated 14 February 1992, produced by Mr Fotheringham to Mr McNeilly, certifying the installation of the fire alarm system, specified that there were three automatic door release devices¹¹¹⁵. This number would

¹¹¹³ See generally, Chapter 3, para. 10.

¹¹¹⁴ Iain Fotheringham, 15 January 2010, am, p. 126.

¹¹¹⁵ Pro 1094, p. 11; Iain Fotheringham, 18 January 2010, am, pp. 150, 155.

correspond to the two cross-corridor fire doors on the upper floor and the single door on the lower floor – i.e. excluding the fire doors at the stairwells¹¹¹⁶.

3.2. Each of the fire doors into the stairwell had a notice affixed to them which stated “Fire door keep shut”, which was not the appropriate notice for a door which was held open on a magnetic device¹¹¹⁷. This contrasted with the notice affixed to the cross-corridor fire doors which stated “Automatic fire door. Keep clear. Close at night”¹¹¹⁸ and would be consistent with a door which did not have an automatic hold-open device.

3.3. In September 1992, Comtec installed an extra magnetic door unit at the main stairwell¹¹¹⁹.

3.4. In July 1993, Comtec fitted a magnetic door contact on the door at the lift¹¹²⁰.

3.5. Mr Fotheringham stated that the only reason the doors into the central stairwell were held open was because they were in the main corridor and the owners required them to be open¹¹²¹.

The corridor 3/4 fire door

4. The corridor 3/4 fire door between rooms 17 and 18 is shown in Productions 336A and 336B. When examined following the fire, had the following features:

4.1. The door leaf was of solid timber construction, nominally 45 mm thick, typical of a door leaf used in fire-resisting doorsets¹¹²². It was true and flat, and

¹¹¹⁶ Iain Fotheringham, 18 January 2010, pm, pp. 15-20.

¹¹¹⁷ Thomas Balmer, 29 April 2010, am, pp. 72-73.

¹¹¹⁸ Pros 332A, 887R, 1062A; Iain Fotheringham, 15 January 2010, am, pp. 122-124; 18 January 2010, am, pp. 44-45.

¹¹¹⁹ Pro 215, p. 69; Iain Fotheringham, 15 January 2010, am, pp. 117-118. Although Mr Balmer did not recall this change, he accepted that this was what the Comtec documentation showed: 29 April 2010, am, pp. 52-64.

¹¹²⁰ Pro 215, p. 63; Iain Fotheringham, 15 January 2010, am, pp. 118-119.

¹¹²¹ Iain Fotheringham, 15 January 2010, am, pp. 112-113.

did not suffer from any material distortion such as would have affected its operation¹¹²³.

4.2. The door was hung on two hurl hung hinges. Neither of the hinges showed any significant wear¹¹²⁴.

4.3. The door was fitted with a standard door closer, approved for use with 30 minutes timber door sets, at the top¹¹²⁵.

4.4. The door leaf was fitted with an intumescent seal which was fitted along the vertical edges and top edge of the leaf¹¹²⁶. The intumescent seal had expanded along the majority of its length at the head of the door leaf and to a greater degree at the leading edge side¹¹²⁷.

4.5. There had been a kickplate (production 776) on the corridor 4 side of the door, which had become detached during the fire¹¹²⁸.

5. The hinges were not of a type which would normally be used on a heavy, fire-resisting door. This is because, as the door frame starts to char in response to a fire, hinges of this type will fail more readily than the more usual butt hinge. There was, though, no evidence that this had in fact occurred at Rosepark¹¹²⁹.

6. Above the door on each side was an exit sign. A photograph of a similar fitting on the equivalent door downstairs can be seen in production 886A. The plastic of the fitting on the corridor 3 side had become badly melted, as can be seen in production 336A¹¹³⁰.

¹¹²² Christopher Miles, 2 August 2010, am, pp. 41-42.

¹¹²³ Christopher Miles, 2 August 2010, am, pp. 45-47.

¹¹²⁴ Christopher Miles, 2 August 2010, am, p. 47.

¹¹²⁵ Christopher Miles, 2 August 2010, am, pp. 51-52.

¹¹²⁶ Christopher Miles, 2 August 2010, am, pp. 53-54.

¹¹²⁷ Christopher Miles, 2 August 2010, am, pp. 54-57.

¹¹²⁸ Christopher Miles, 2 August 2010, am, p. 57.

¹¹²⁹ Christopher Miles, 2 August 2010, am, pp. 47-51.

¹¹³⁰ Christopher Miles, 2 August 2010, am, pp. 58, 78.

The fire door into the south-west stairwell

7. This door was also hung on two hurl type hinges and fitted with intumescent seals. The intumescent seal had expanded along some of its length at the head of the door leaf and at the hanging edge. This expansion was not significant or complete. It was not fitted with a smoke seal, so that smoke would be able to penetrate the gap between the door leaf and the frame¹¹³¹.

Practice at Rosepark

8. The practice of the Home was that with the exception of the fire doors entering the stairwell at the south west end of the building (which were always kept closed), the other corridor fire doors were kept open during the day¹¹³². Mr Balmer's view was that these doors should be closed at night once the evening medicine round had been concluded¹¹³³. He understood that these doors should be closed at night because if the mechanism failed in a way which kept the doors open, compartmentation would be lost¹¹³⁴.

9. This reflected normal practice. That practice was widely regarded as good practice, on the basis that if such doors are held open on a magnetic device and are at the same time exposed to the forces of a self-closer, they may warp in a manner which would affect their function in a fire¹¹³⁵.

10. Production 334I, one of the notices on the wall at the fire alarm panel, stated:

“Night staff must be extremely vigilant – make sure fire doors are all closed ...”.

11. The corridor 3/4 fire door had a label on it which read:

“Automatic fire door. Keep clear. Close at night.”¹¹³⁶

¹¹³¹ Christopher Miles, 2 August 2010, am, pp. 93-7.

¹¹³² Allison Cumming, 19 November 2009, pm, pp. 18-20; Phyllis West, 23 November 2009, am, p. 72.

¹¹³³ Thomas Balmer, 29 April 2010, am, pp. 66-67.

¹¹³⁴ Thomas Balmer, 29 April 2010, am, pp. 68-69.

¹¹³⁵ Martin Shipp, 15 April 2010, am, pp. 125-126; Christopher Miles, 2 August 2010, am, pp. 45-46;

cp Colin Todd, 27 July 2010, am, pp. 55-58.

¹¹³⁶ 887R; Thomas Balmer, 29 April 2010, am, p. 69.

The fire doors at the central stairwell both had labels which read “Fire door. Keep shut”

12. The video advised that corridor fire doors should be closed at 11 pm and this was reflected in one of the questions in the questionnaire.

13. Matron, on the other hand, believed that the cross-corridor fire doors were left open through the night (although some nurses might close them over). She herself would have considered this acceptable for three reasons:

13.1. The doors would have closed over automatically if there was a fire alarm.

13.2. The doors had no glazed panel, which presented a danger if staff were opening the door, of hitting a resident who was on the other side¹¹³⁷.

13.3. Night staff were encouraged to sit at the corner of the dogleg, and if the corridor 3/4 door was closed they would not see a resident wandering¹¹³⁸.

She might have encouraged staff to close the doors at the stairs, because of the risk of falls¹¹³⁹.

14. The evidence was the cross-corridor fire doors were, in fact, normally left open throughout the nightshift¹¹⁴⁰. Flora Davidson, exceptionally, said that at least some of them were closed¹¹⁴¹.

Monitoring of the position

15. Thomas Balmer stated that when he visited in the evenings around 11 pm or 11.30 pm, these doors were always closed¹¹⁴². There was no written instruction by

¹¹³⁷ Sadie Meaney, 18 February 2010, am, pp. 123-125, pm, p. 4.

¹¹³⁸ Sadie Meaney, 19 February 2010, am, pp. 79-80.

¹¹³⁹ Sadie Meaney, 18 February 2010, am, p. 125.

¹¹⁴⁰ Allison Cumming, 19 November 2009, pm, p. 18; Alexis Coster, 24 November 2009, am, pp. 84-85; Eleanor Ward, 24 November 2009, pm, p. 19; Rosemary Buckley, 25 November 2009, pm, p. 64; Yvonne Carlyle, 27 November 2009, am, p. 21; Irene Richmond, 27 November 2009, pm, p. 98.

¹¹⁴¹ Flora Davidson, 12 February 2010, am, pp. 45-46, 55-56.

the Balmer Partnership to the Matron and staff that cross-corridor fire doors should be closed at night. Other than occasional personal visits at night, he took no steps to check or audit the question of whether or not these doors were kept closed at night¹¹⁴³.

Note to Chapter 14

It was proposed on behalf of Lanarkshire Health Board that I should determine

“It would have been a reasonable precaution for each of the corridor fire doors to have been fitted with a vision panel when the doors were installed. Had there been a vision panel in each of the corridor fire doors, the staff attempting to follow the fire verification procedure would immediately have seen that corridor 3 was contaminated by smoke and that corridor 4 was smoke logged. The staff would have immediately called emergency services and there would not have accrued the delays in raising the alarm. ... The investigating staff member might have been able to close the open bedroom doors in corridor 3. Those residents behind closed bedroom doors and so receiving a less toxically loaded mix of air and under less pressure would have been at risk for less time. The accident might not have resulted in the deaths of Robina Burns, Margaret Gow, Isabella MacLachlan and Isabella MacLeod.”

It was pointed out on behalf of North Lanarkshire Council there was no evidence as to when the doors which were in situ at the time of the fire were installed. The original plans provided for a vision panel. The Building Control Inspector Hugh Gibb was asked (3 February 2010 pm page 85 and 86) about the cross corridor doors and stated that it should have had a vision panel. He was asked:

“If that had been the door in place when you carried out your completion inspection, would you have been content with it?”

His answer was:

“Certainly without the vision panel no”.

North Lanarkshire Council make the important point that, notwithstanding when the doors were fitted, the purpose of vision panels within cross-corridor doors does not relate to fire safety but serves to afford sight of persons coming in the opposite direction. This was the evidence of the Building Control Inspector, Hugh Gibb.

That appears to me to be determinative of this issue. In any event, the smoke in corridor 2 (the lift area) was described by staff as being thick and black with visibility

¹¹⁴² Thomas Balmer, 29 April 2010, am, p. 66.

¹¹⁴³ Thomas Balmer, 29 April 2010, am, p. 70.

of very short range. In my view it is speculative to say that, had there been a vision panel in place, this would have allowed staff to have seen smoke in corridor 3. I am not prepared to make the determination sought by Lanarkshire Health Board.

The evidence indicates that corridor doors were open at night. There were no instructions by the Balmer Partnership to staff, and in particular to the Matron, that cross-corridor fire doors should be closed at night. There were no steps to check or audit the question of whether or not these doors were kept closed at night. It is the case that doors did close automatically when the fire alarm went off.

CHAPTER 15: BEDROOM DOORS

Construction at the time of the fire

1. The bedroom doors were ordinary doors, not fire-rated. At the time of the fire some of the bedroom doors had working door closers. Others had previously had closers, but these had been removed or disconnected¹¹⁴⁴.

Background

2. When Rosepark was constructed, bedroom doors were not required in terms of the Building Standards then applicable to be fire-rated¹¹⁴⁵. The doors were originally fitted with Perko door closers. Mr Dickie had told Mr Balmer that “it would be a requirement to have the closing device fitted to the door for safety” and Mr Balmer understood that this was because it “created inherency of fire protection within that room”¹¹⁴⁶.

3. The Perko door closers were not acceptable to Mr McNeilly and he had insisted that overhead door closers be fitted before he would issue the goodwill letter for registration.

4. The door closers were removed at various times by Joseph Clark. This was always at the request of the resident, and would only be done with the authority of Mr Balmer¹¹⁴⁷. Door closers were first removed and disconnected when Brigid Boyle was Matron (i.e. between July 1992 and 1997)¹¹⁴⁸. All of the door closers which had been removed or disconnected had been removed or disconnected before Ms Meaney came to Rosepark¹¹⁴⁹.

¹¹⁴⁴ Allison Cumming, 19 November 2009, pm, p. 23.

¹¹⁴⁵ Thomas Sorbie, 8 June 2010, am, p. 60.

¹¹⁴⁶ Thomas Balmer, 29 April 2010, am, pp. 90-91.

¹¹⁴⁷ Joseph Clark, 20 January 2010, am, pp. 85-90.

¹¹⁴⁸ Thomas Balmer, 4 May 2010, am, p. 27-28.

¹¹⁴⁹ Sadie Meaney, 19 February 2010, am, pp. 1-4.

5. When Mr Balmer first authorized the removal or disconnection of an automatic door closer he undertook no risk assessment exercise in relation to that step¹¹⁵⁰.

Changes to bedroom doors; the involvement of the Health Board

6. Concerns had been expressed by some residents that they could not freely get in and out of their rooms because of the door closers¹¹⁵¹. Mrs Balmer raised this with Health Board inspectors during an inspection¹¹⁵². The Health Board advised that closers could be removed in respect of residents who were finding the closers restrictive¹¹⁵³. They also said that the matter was under review¹¹⁵⁴. It was only following this discussion that management at Rosepark removed door closers¹¹⁵⁵.

7. At an inspection by the Health Board on 9 February 1999, Ms McCallum noticed that the closers on some bedroom doors were not connected. The report of this inspection records: “There was some debate around this matter and the team agreed to look further into the regulations around door closers”¹¹⁵⁶.

8. Ms McCallum gave evidence to the effect that following the inspection on 9 February 1999 she was sure she had contacted the Home and informed it that door closers had to remain fitted, but could not specifically remember doing this. I do not think it proper to make a finding that such a communication occurred.

- a. Ms McCallum could not specifically remember contacting the home.
- b. Mr and Mrs Balmer both gave evidence that they received no further communication about the subject following this discussion¹¹⁵⁷.

¹¹⁵⁰ Thomas Balmer 7 May 2010, pm, p. 16.

¹¹⁵¹ Thomas Balmer, 29 April 2010, am, pp. 97, 102.

¹¹⁵² Anne Balmer, 15 July 2010, am, pp. 106-107, 116.

¹¹⁵³ Brigid Boyle, 16 February 2010, am, pp. 23-28; Thomas Balmer, 29 April 2010, am, pp. 96-104; Anne Balmer, 15 July 2010, am, p. 107, 109.

¹¹⁵⁴ Anne Balmer, 15 July 2010, am, p. 120

¹¹⁵⁵ Thomas Balmer, 7 May 2010, pm, pp. 16-17.

¹¹⁵⁶ Pro 218, p. 93; Thomas Balmer, 29 April 2010, am, pp. 98-100.

¹¹⁵⁷ Anne Balmer, 15 July 2010, am, p. 117, 120.

c. A copy of the report as sent out on 20 April 1999, and a final copy sent out on 27 May 1999. Both of these contained the passage just mentioned without any change.

d. There was no further written communication received by Rosepark on this subject.

However, on the other hand, it is the case that the management at Rosepark did not raise the issue again with the Health Board¹¹⁵⁸. Mr Balmer acknowledged that it was unsatisfactory that this had been left hanging¹¹⁵⁹.

9. If the inspectors had requested the Home to take any particular steps in relation to the question of bedroom doors, the Home would have been keen to respond to any request¹¹⁶⁰.

10. Mr Balmer recognized that the removal of the door closers meant “there would have to be a heightened awareness from staff to ensure ... those doors were closed ... [i]n the evenings when the resident was sleeping ...”¹¹⁶¹. He took the view that removal of door closers was acceptable provided staff were being instructed to close bedroom doors at night¹¹⁶². He took no steps himself to ascertain whether or not such an instruction had in fact been given to staff¹¹⁶³. He assumed that the Care Manager would have done this. He took no steps himself to ascertain whether or not doors were in fact being closed at night¹¹⁶⁴. Nor did the management at Rosepark apply their mind to the question of whether or not there was available at the time any technological solution which would ensure that in the event of a fire alarm sounding bedroom doors would be closed¹¹⁶⁵.

¹¹⁵⁸ Thomas Balmer, 29 April 2010, am, pp. 117-119; Anne Balmer, 15 July 2010, am, pp. 120-121.

¹¹⁵⁹ Thomas Balmer, 10 May 2010, pm, p. 36.

¹¹⁶⁰ Anne Balmer, 15 July 2010, am, p. 128.

¹¹⁶¹ Thomas Balmer, 29 April 2010, am, pp. 120, 122-123; see also pp. 110-111.

¹¹⁶² Thomas Balmer, 29 April 2010, am, p. 129, pm, p. 1.

¹¹⁶³ Thomas Balmer, 29 April 2010, am, p. 130, pm, pp. 1-2.

¹¹⁶⁴ Thomas Balmer, 29 April 2010, pm, p. 2.

¹¹⁶⁵ Thomas Balmer, 29 April 2010, am, pp. 120-123.

Further dealings with the Fire Service

Construction of Croftbank

11. When Croftbank was built in 1996, the evidence of Thomas Balmer and Alan Balmer was that the Fire Service issued a goodwill letter without insisting that the bedroom doors have door closers¹¹⁶⁶. This matter was not put to Mr McNeilly of SF&R who carried out the inspection and the goodwill letter was not produced in court. It should be noted that this conflicts with the requirement of Mr McNeilly for door closers at the time of construction of Rosepark and also with the vouched and explicit requirement for self closing fire resistant doors at the time of the extensions of Croftbank in 1997/1998 and 2001.

Extension to Croftbank 1997-1998

12. In 1997-98 a ten bedroom extension was constructed at Croftbank¹¹⁶⁷. The extension had already been effectively completed when the management requested the Fire Service to issue a goodwill letter. By this date, the first edition of SHTM 84 had been issued. This document inter alia specified that “All bedrooms (staff and resident) should be fully enclosed in construction which offers 30 minutes fire resistance” and that “Doors should be FD30S, fitted with an automatic self-closing device, with a “swing-free” arm activated by the operation of the alarm and detection system”¹¹⁶⁸.

13. Mr McNeilly insisted that the bedroom doors of this extension should be “self-closing fire resisting door sets which provide a minimum fire resistance of FT30 as standard”¹¹⁶⁹. The management of Croftbank complied with this requirement¹¹⁷⁰. On this occasion, Mr McNeilly was content with Perko door closers¹¹⁷¹.

¹¹⁶⁶ Thomas Balmer, 29 April 2010, am, p. 94; Alan Balmer, 2 June 2010, pm, p. 13.

¹¹⁶⁷ William Dickie, 13 January 2010, am, pp. 142-147; 13 January 2010, pm, pp. 1-3; Thomas Balmer, 29 April 2010, pm, p. 9.

¹¹⁶⁸ Pro 1227, p. 47; William Dickie, 13 January 2010, pm, pp. 19-20.

¹¹⁶⁹ Pro 1115, p. 39; Thomas McNeilly, 25 January 2010, am, pp. 93-98, 104; Thomas Balmer, 29 April 2010, pm, pp. 7-14.

¹¹⁷⁰ Thomas Balmer, 29 April 2010, pm, pp. 16-18; 30 April 2010, am, pp. 66-67; 10 May 2010, pm, pp. 38-39; Alan Balmer, 2 June 2010, pm, pp. 13-34.

¹¹⁷¹ Alan Balmer, 2 June 2010, pm, pp. 29-32.

14. Once the work had been done, Mr Balmer and Mr Dickie met on site with Mr McNeilly and Mr Power of the Fire Service to discuss this requirement¹¹⁷². Mr Balmer and Mr Dickie pointed out that the building had been built according to Building Regulations. Mr McNeilly told them that he was working to SHTM 84, which recommended that these types of doors should be fire resistant and self-closing¹¹⁷³.

Extension to Croftbank 2001

15. In 2001 a further extension was built at Croftbank. In preparing the designs for this extension, Mr Dickie took account of SHTM 84. The bedroom doors in this extension were specified to be fire-rated doors with door closers¹¹⁷⁴.

16. Mr Balmer and Mr Dickie met with Mr McNeilly in connection with this extension, on 21st February 2001. Mr McNeilly's note of the points discussed includes reference to: (i) fire compartments; (ii) fire protection to walls, doors to bedrooms and stores; (iii) staff ratios in relation to rooms within zones; and (iv) means of escape¹¹⁷⁵.

Proposed new unit at Rosepark

17. In April 1999 the Balmers sought building warrant for a freestanding nursing unit at Rosepark¹¹⁷⁶, although this was not in fact built. The drawings specified that the bedroom doors would be "self-closing smoke-stop fire doors" providing 30 minutes of fire resistance¹¹⁷⁷. Mr Balmer was aware that the plans for this unit specified that the bedroom doors would be fire doors¹¹⁷⁸.

¹¹⁷² Thomas McNeilly, 25 January 2010, am, pp. 106ff; Colin Power, 11 June 2010, am, pp. 139-146.

¹¹⁷³ Thomas McNeilly, 25 January 2010, am, pp. 109-110.

¹¹⁷⁴ William Dickie, 13 January 2010, pm, pp. 21-24; Thomas Balmer, 29 April 2010, pm, pp. 21, 25; Alan Balmer, 2 June 2010, pm, pp. 41-42.

¹¹⁷⁵ Pro 1115, p. 6; Thomas Balmer, 29 April 2010, pm, pp. 25.

¹¹⁷⁶ Pro 1105, p. 4; Thomas Balmer, 29 April 2010, pm, p. 26.

¹¹⁷⁷ Pro 1105, p.43; William Dickie, 13 January 2010, am, pp. 141-142.

¹¹⁷⁸ Thomas Balmer, 29 April 2010, pm, pp. 20-21.

No reconsideration of the position at Rosepark

18. At the time of these various discussions, door closers had been removed from bedrooms at Rosepark¹¹⁷⁹. The position at Rosepark was not re-assessed in light of these various discussions¹¹⁸⁰. Mr Balmer acknowledged, with the benefit of hindsight, that the discussions in relation to Croftbank extensions should have alerted him to the potential significance of door closers in care homes, and that if there were practical problems attendant on the use of such closers, the appropriate way to address that at the time would have been to consider whether there were technological ways of dealing with the matter, or at least taking advice as to the appropriate response¹¹⁸¹.

19. The management at Rosepark was aware that there were devices which could hold a door open and release it in the event that a fire alarm sounded – they had such devices on the corridor firedoors. They did not, however, address whether there was a similar device which could conveniently be fitted to a bedroom door¹¹⁸².

20. Had they sought advice from the Fire Service, they would have been advised that bedroom doors should be fire-resistant and self-closing and should not be left open at night. If there was an over-riding need to leave bedroom doors open at night, the Fire Service would have offered advice on the different types of mechanism that could have been fitted to accommodate this and allow the door to close in the event of a fire¹¹⁸³.

Policy of the Home

21. The Home had no written policy on the question of whether or not (or in what circumstances) bedroom doors could properly be left open at night¹¹⁸⁴. Mr Balmer did not issue any instruction or guidance about the question of closing bedroom doors¹¹⁸⁵.

¹¹⁷⁹ Thomas Balmer, 29 April 2010, pm, pp. 34-35.

¹¹⁸⁰ Thomas Balmer, 29 April 2010, pm, pp. 34-35; Alan Balmer, 2 June 2010, pm, pp. 47-48 Anne Balmer, 15 July 2010, am, pp. 122-123.

¹¹⁸¹ Thomas Balmer, 10 May 2010, pm, pp. 40-41.

¹¹⁸² Alan Balmer, 2 June 2010, pm, pp. 49-55

¹¹⁸³ Colin Power, 11 June 2010, pm, pp. 20-22.

¹¹⁸⁴ Allison Cumming, 19 November 2009, pm, p. 26; Phyllis West, 23 November 2009, am, p. 63.

¹¹⁸⁵ Thomas Balmer, 4 May 2010, pm, pp. 55-56

Mrs Balmer took the view that the issue was more of a nursing matter than a management matter¹¹⁸⁶, which she would leave to the Care Manager's judgment¹¹⁸⁷. Likewise, Mr Balmer took the view that it was the Care Manager's responsibility to issue any instructions in this regard¹¹⁸⁸. He did not discuss the issue with the Care Manager; nor did she raise the issue with him¹¹⁸⁹.

22. However:-

a. Both Mr and Mrs Balmer took the view that bedroom doors should, unless there was a good reason to the contrary, be closed at night¹¹⁹⁰.

b. The members of the partnership took the view that, if a resident (or a resident's relatives) wished the bedroom door to be left open, those wishes should be respected. They took the view that the wishes of the residents were paramount¹¹⁹¹. Mrs Balmer felt that it was the resident's right to have his or her bedroom door open¹¹⁹².

c. Mr Balmer appears to have taken the view that once the resident in question was asleep, nightshift staff should ensure that the door was closed, perhaps opening it again when they anticipated that the resident would be likely to waken again¹¹⁹³.

23. Mr Balmer recognized that if a resident's bedroom door was left open that would compromise an element of fire safety as identified by Mr McNeilly at the outset¹¹⁹⁴. However, he did not seek any professional advice as to how the tension,

¹¹⁸⁶ Anne Balmer, 15 July 2010, am, p. 104.

¹¹⁸⁷ Anne Balmer, 15 July 2010, am, p. 114.

¹¹⁸⁸ Thomas Balmer, 29 April 2010, am, pp. 124-125, 126.

¹¹⁸⁹ Sadie Meaney, 18 February 2010, am, p. 131; Thomas Balmer, 29 April 2010, am, p. 126.

¹¹⁹⁰ Anne Balmer, 15 July 2010, am, pp. 102-103.

¹¹⁹¹ Thomas Balmer, 29 April 2010, pm, pp. 3-4; 5 May 2010, am, p. 77; Alan Balmer, 3 June 2010, am, pp. 37-39; Anne Balmer, 15 July 2010, am, pp. 103-104; see also Brigid Boyle, 16 February 2010, am, p. 22.

¹¹⁹² Anne Balmer, 15 July 2010, am, p. 104.

¹¹⁹³ Thomas Balmer, 4 May 2010, pm, pp. 57-59; see also Brigid Boyle, 16 February 2010, am, p. 22;

Anne Balmer, 15 July 2010, am, p. 104.

¹¹⁹⁴ Thomas Balmer, 4 May 2010, pm, p. 57; 5 May 2010, am, p. 77.

which he recognized, between fire safety and the wishes of residents might be resolved¹¹⁹⁵.

24. Ms Meaney's view was that the normal procedure would be to close the door, for reasons of privacy as well as fire safety. However, if a resident requested her door to be left open, or there was some other good reason for the door to be open, it could be left open¹¹⁹⁶. Staff might leave the doors open so that they could check on residents¹¹⁹⁷. Essentially, unless it was something which had been specifically requested by a resident or the resident's relatives, the question of whether individual doors were left open or closed was a matter for the judgment of the nurse in charge¹¹⁹⁸.

25. The "Checklist for Evacuation" in the Policy Manual and, as modified for the firemen's strike, Pro 334I contained a statement to the following effect:

"Night staff must be extremely vigilant – make sure fire doors are all closed and plugs are pulled out"

Ms. Meaney took the view that this related to bedroom doors as well as cross-corridor doors¹¹⁹⁹. It is not at all clear whether this was the intention of the notice, but in any event, it is apparent that neither she nor management expected this instruction to be applied literally so far as bedroom doors were concerned.

Practice

26. Residents went to bed both during the backshift and after the nightshift staff came on. The decision whether or not to leave a bedroom door open or ajar was taken by the nurse or carer who put the resident to bed¹²⁰⁰. When a resident was put to bed,

¹¹⁹⁵ Thomas Balmer, 5 May 2010, am, pp. 78-79.

¹¹⁹⁶ Sadie Meaney, 18 February 2010, am, pp. 125-127, 19 February 2010, am, pp. 81-82.

¹¹⁹⁷ Sadie Meaney, 18 February 2010, am, pp. 120-121.

¹¹⁹⁸ Sadie Meaney, 18 February 2010, am, pp. 127-128, 22 February 2010, pm, pp. 82-84.

¹¹⁹⁹ Sadie Meaney, 19 February 2010, pm, pp. 62-63, 22 February 2010, am, pp. 54-55.

¹²⁰⁰ Phyllis West, 23 November 2009, am, pp. 60.

the carer or nurse would ask the resident if he or she wanted the door left open. The resident's preference would be complied with¹²⁰¹.

27. There were a number of other reasons why a bedroom door would be left open: for example, if the resident was ill (particularly at the latter stage of life) and required to be kept under observation, or was agitated and liable to get up and fall¹²⁰². And there were residents who might become very distressed if the door was shut¹²⁰³. It was regarded as safer to have the door of a "wanderer" open since if the resident fell behind the door they could be injured pushing the door open¹²⁰⁴.

28. Mr Norton stated that some doors were open, some were closed: as he put it, "there was no standard policy of closing all doors ..."¹²⁰⁵.

29. This had been the practice since at least 1997 and did not change either after the video was introduced or after the meeting relating to the Fire Brigade strike¹²⁰⁶.

30. If the backshift had put a resident to bed and left the door open, the nightshift staff would simply leave the bedroom door open¹²⁰⁷.

31. A resident's preference in relation to having his or her bedroom door open or closed was not noted in the care plan. This was not something which was discussed with a resident on admission. Nor was it discussed with the relatives of a resident who could not express a preference¹²⁰⁸.

32. The doors which would otherwise close by themselves would be held open using wedges. There were wedges in the bedrooms to put under the doors to hold

¹²⁰¹ Allison Cumming, 19 November 2009, pm, pp. 20-22, 25-26; Phyllis West, 23 November 2009, am, pp. 62-63; Alexis Coster, 24 November 2009, am, p. 84; Yvonne Carlyle, 27 November 2009, am, p. 20; Flora Davidson, 12 February 2010, am, pp. 46-47.

¹²⁰² Allison Cumming, 19 November 2009, pm, p. 26; Phyllis West, 23 November 2009, am, pp. 62-66; Eleanor Ward, 24 November 2009, pm, pp. 16-17; Rosemary Buckley, 25 November 2009, pm, pp. 64-65.

¹²⁰³ Rosemary Buckley, 25 November 2009, pm, pp. 75-77; Brian Norton, 26 November 2009, am, pp. 51-52.

¹²⁰⁴ Irene Richmond, 1 December 2009, am, pp. 58-59.

¹²⁰⁵ Brian Norton, 26 November 2009, am, pp. 51-52.

¹²⁰⁶ Eleanor Ward, 24 November 2009, pm, p. 41; Irene Richmond, 1 December 2009, am, pp. 59-60.

¹²⁰⁷ Yvonne Carlyle, 27 November 2009, am, p. 21; Irene Richmond, 1 December 2009, am, p. 57.

¹²⁰⁸ Allison Cumming, 19 November 2009, pm, pp. 24-25.

them open¹²⁰⁹. Someone who visited the Home would be liable to see doors that were being held wedged open and wedges lying about¹²¹⁰.

Management's awareness of practice

33. The management at Rosepark was not aware of the extent of the practice of bedroom doors being left open at night.

34. Mr Balmer was aware that there were requests that certain residents' bedroom doors be left open at night and that some residents became distressed if their bedroom doors were closed at night¹²¹¹. During visits to the Home during the night, he would find bedroom doors closed, with the exception of one or two with staff going in and out¹²¹². When he found this he took no steps to satisfy himself that those doors would be closed at an appropriate point. He assumed that staff would close the doors once they had finished in that room¹²¹³.

35. It is noted that at the time of the fire, there was no express policy on behalf of the Care Commission to require either:

- (a) that residents' doors be closed at night regardless of their wishes;
- (b) that there should be a default position in favour of door closers save in particular situations such as medical emergency or where a resident was close to death; or
- (c) that, a resident wished to leave the door open at night, there should be a device fitted to the door to effect immediate closure in the event of fire.

¹²⁰⁹ Allison Cumming, 19 November 2009, pm, p. 23; Phyllis West, 23 November 2009, am, pp. 67-68.

¹²¹⁰ Allison Cumming, 19 November 2009, pm, pp. 23-24.

¹²¹¹ Thomas Balmer, 29 April 2010, am, pp. 124-125.

¹²¹² Thomas Balmer, 29 April 2010, pm, pp. 2, 35.

¹²¹³ Thomas Balmer, 29 April 2010, pm, pp. 2-3.

Note to Chapter 15

It was said on behalf of the Balmer Partnership that it was accepted that, following the developments of Croftbank, there could have been a reassessment of the position of door closers. It is then submitted, while the responsibility lay with the duty holder, no professional advice regarding these matters at Rosepark had been given to the Balmer Partnership.

In my view this submission begs the question. It had been made clear by Mr McNeilly, the Fire Safety Officer, to Thomas Balmer and his architect during the extension to Croftbank 1997/1998 that bedroom doors should be fire resistant and self closing. His requirements received effect. Thomas Balmer acknowledged in his evidence that, with the benefit of hindsight, the discussions in relation to the Croftbank extension should have alerted him to the potential significance of door closers in care homes, and that if there were practical problems attendant on the use of such closers, the appropriate way to address the problem at the time would have been to consider whether there were technological ways of dealing with the matter, or at least taking advice as to the appropriate response.

As I understand it, it is accepted on behalf of the Balmer Partnership that they had responsibility, as duty holders and employers, for fire safety matters. It was for them, and not the Matron, to determine and implement fire safety issues.

As far as the meeting with Health Board inspectors in February 1999 was concerned, this issue had been raised at the inspection by the Health Board inspectors. It appears the matter was not followed up in writing. Standing their concerns, management did not raise the matter again with the Health Board and Thomas Balmer acknowledged that it was unsatisfactory that the issue had been left hanging.

I accept the submission on behalf of Matron that the issue of closing doors was a fire safety related matter which was an issue for management i.e. the Balmer Partnership.

It is perhaps of significance that the Care Commission submitted that, in terms of the National Care Standards, the Care Commission considered that the premises were the

residents' home and their wishes should be respected. There was no express policy requiring residents' doors to be closed at night regardless of their wishes.

CHAPTER 16: POLICIES

Policy Manual

1. Production 259 was the Policy Manual which contained the policies of Rosepark Care Home which applied at the time of the fire¹²¹⁴. It was normally kept in Matron's office, although following the fire it was found in a cupboard in the drugs store opposite Matron's office¹²¹⁵.
2. According to Mr Balmer this Manual was prepared by Matron¹²¹⁶. He did not himself put any entries into the Policy Manual¹²¹⁷. Mrs Balmer likewise stated that the Care Manager worked more the with Policy Manual and updating it¹²¹⁸. I deal with the respective responsibilities of the Balmer Partnership and Matron in Chapter 18 "Fire Safety, Roles and Responsibilities".

Health and Safety Policy

3. The Policy Manual contained a Policy Statement in the following terms (p. 8):
 "Our policy is to provide and maintain safe and health working conditions, equipment and systems of work for all our employees, and to provide such information, training and supervision as they need for this purpose. We also accept our responsibility for health and safety of other people who may be affected by our activities.

The allocation of duties for safety matters and the particular arrangements which we will make to implement the policy are set out below.

The policy will be kept up to date, particularly as the business changes in nature of size. To ensure this, the policy and way in which it has operated will be reviewed every year.

Signed: Thomas Balmer

Title: Owner

Date: 12/11/02

¹²¹⁴ Thomas Balmer, 4 May 2010, am, pp. 60-61.

¹²¹⁵ Carol Ann Brown, 12 August 2010, am, pp. 3-4.

¹²¹⁶ Thomas Balmer, 4 May 2010, am, p. 44.

¹²¹⁷ Thomas Balmer, 6 May 2010, pm, p. 20; see also Alan Balmer, 3 June 2010, am, pp. 27-31.

¹²¹⁸ Anne Balmer, 15 July 2010, am, pp. 143-144

4. The Health and Safety Policy of Rosepark Care Home was set out at p. 19 of production 259. It was in the following terms:

“**Rosepark Care Home** intends to comply with the spirit as well as the letter of the Health and Safety at Work etc, Act 1974, and all associated health & Safety Regulations brought under this act including the Management of Health & Safety at Work Regulations 1992.

We will develop a control system, which is designed to provide speedy recognition and resolution of health and safety problems.

While each employee has a responsibility for health and safety, the prime responsibility rests with Staff Nurses and Heads of Department to maintain safe working practices that will be assisted by Matron and Owners.

The person with overall responsibility of the premises: **ROSE PARK CARE HOME, 261 NEW EDINBURGH ROAD, UDDINGSTON, G71 6LL**

Is **MR THOMAS BALMER & MRS ANNE BALMER**

Health & Safety is given the highest priority in terms of management objectives.

The statutory duty to communicate this policy to all employees Is met by Matron.

Local Health and Safety Policies and Procedures will be developed to address the specific issues that affect our staff.

Additional procedures, instructions and practices, which apply to a specific location or department will be advised and discussed with all staff at regular staff meetings.

These procedures will be subject to regular audit and review. This particular policy will be revised, and if necessary, revised.

Signatures: Thomas Balmer Anne Balmer
Mr Thomas W. Balmer Mrs Anne Balmer
(Owner) (Owner)

Dated: 12.11.02”

5. This document was a pro forma. It had not been framed by Mr Balmer¹²¹⁹. Mr Reid did not recognise it – or any of the documentation in the Health and Safety section of the Policy Manual - as his¹²²⁰.

Risk Assessment Policy

6. The Policy Manual contained a section headed “Risk Taking and Risk Assessment Policy”¹²²¹ which contained the following:

“Taking risks is a part of normal life. People living in Rosepark Care Home should have, as far as possible, the same rights as those living in home. The key element for staff and residents is risk assessment.”

7. This section included a section: “Health and Safety – Assessing “Hazards and Risks”¹²²². This stated inter alia:-

“A Hazard is something with the potential to cause harm.

A Risk is the likelihood of that potential being realized.

Who Will Carry Out Assessment of Hazard/Risks?

Ideally, the Head of Department is the person best suited to assess Hazard and recommend appropriate action.

This should be done using Rosepark Assessment Sheet. All action to be recorded along with recommendation.

Joint Department Assessments to be overseen by Matron and Lead Person or Depute Lead Person.

All completed assessments and recommendations to be filed.

Duties of Department Heads

- identify possible Hazards
- Identify those at risk
- Evaluate Risks

¹²¹⁹ Thomas Balmer, 4 May 2010, am, pp. 61-62.

¹²²⁰ James Reid, 16 February 2010, am, pp. 68-75.

¹²²¹ Pro 259, p. 33ff; Thomas Balmer, 4 May 2010, am, pp. 78ff.

¹²²² Pro 259, p. 35; Thomas Balmer, 4 May 2010, am, p. 79

- Decide on control measures
- Record all significant assessment

Five Step Guide for Department Heads

1. Look for potential hazards
2. Decide who may be harmed
3. Evaluate the risks from those hazards
4. Record your findings
5. Review your assessment, revise if necessary”

The “Assessment Sheet” form attached bore to require Matron’s signature.

8. This part of the policy document was, in fact, concerned with the risk assessment of specific day to day activities¹²²³. The sheets were used by the Domestic Department to make sure that all COSHH Regulations were met and by the Catering Department to deal with various matters within that department¹²²⁴. Matron did not recall ever having been involved in completing such risk assessment sheets. The only risk assessment process that she was involved in was the kind of risk assessment found in the Care Plans in relation to the care of individual residents¹²²⁵.

Fire Policy

9. The Policy Manual contained a number of documents relating to fire safety. These were as follows: -

9.1.

“PREVENTION OF FIRE

POINTS TO REMEMBER

CHECKLIST FOR EVACUATION

1. CHECK TELEPHONE NUMBERS OF STAFF NAMED ON THE FIRE LIST ARE CORRECT.

¹²²³ Thomas Balmer, 4 May 2010, am, p. 79

¹²²⁴ Sadie Meaney, 19 February 2010, pm, pp. 19-20; Thomas Balmer, 4 May 2010, am, pp. 79-82; 6 May 2010, pm, pp. 19-20.

¹²²⁵ Sadie Meaney, 18 February 2010, am, pp. 110-111, 19 February 2010, pm, pp. 19-20.

2. FIRE EXITS ARE UNOBSTRUCTED AND AVAILABLE.
3. FIRE ALARMS AND EMERGENCY LIGHTS ARE IN GOOD WORKING ORDER
4. FIRE FIGHTING EQUIPMENT AVAILABLE AND READY FOR USE
5. ALL MEMBERS OF STAFF MUST KNOW –
 - A) HOW TO RAISE THE ALARM
 - B) HOW TO CALL THE EMERGENCY SERVICES IN CASE OF UNFORESEEN CIRCUMSTANCES
 - C) KNOW WHERE THE FIRE ESCAPES ARE
6. DO WHAT THE PERSON IN CHARGE DIRECT YOU TO DO SO AS TO ACT MORE QUICKLY
7. NO STORAGE OF ANY KIND TO BE LEFT ON STAIRCASES – NO FIRE ESCAPE DOORS BLOCKED AT ANY TIME!
8. NIGHT STAFF MUST BE EXTREMELY VIGILANT – MAKE SURE FIRE DOORS ARE ALL CLOSED AND PLUGS ARE PULLED OUT
9. FREQUENT ROUNDS MUST BE MADE – AND RESIDENTS CONSIDERED AS A “RISK” SHOULD BE CHECKED OFTEN DURING THE NIGHT
10. KITCHEN & LAUNDRY – SPECIAL ATTENTION TO MAKE SURE MACHINES AND EQUIPMENT ARE TURNED OFF AND PLUGS PULLED OUT
11. FOR EVACUATION OF NON-AMBULANT PERSONS WHEELCHAIRS SHOULD BE EASILY ACCESSED AT SPECIAL POINTS ON EACH FLOOR”

9.2.

“IMPORTANT

IN THE EVENT OF A FIRE

1. PERSON IN CHARGE TO DIAL 999 – THEN CALL KEY STAFF ON FIRE LIST.
2. RESPONSIBLE PERSON TO BE NAMED TO MEET FIRE CREWS ON ARRIVAL, IN ORDER TO PROVIDE THEM WITH ACCURATE INFORMATION AND SUPPORT
3. CLOSE ALL FIRE DOORS – IN ORDER TO PREVENT SPREAD OF FIRE
4. EVACUATE RESIDENTS IMMEDIATELY INVOLVED NEAR THE FIRE AREA – THEN CONTINUE TO EVACUATE THE OTHERS SYSTEMATICALLY AND CALMLY.

5. LEAVE ALL VALUABLES, BAGS, JACKETS, ETC., WHERE THEY ARE! DO NOT TAKE MATERIAL THINGS – SAVE YOURSELF AND THE RESIDENTS

6. CHECK LIST – TO BE CALLED BY NAMED PERSON – TO ENSURE ALL RESIDENTS AND STAFF ARE SAFELY OUT OF THE BUILDING”

9.3.

“PROMOTING FIRE SAFETY

PEOPLE DEPEND ON YOU FOR THEIR SAFETY

Fire can be a panic situation for a person who is confined to a wheelchair or bed, or for anyone who has reduced mobility.

IN CASE OF EMERGENCY, STAY CALM AND TAKE IMMEDIATE ACTION TO REMOVE PEOPLE FROM DANGER

RECOGNISING HAZARDS

Awareness of fire hazards is the first step toward prevention. Three elements are needed for a fire to start. By removing any of these elements, a fire can be prevented.

HEAT – Flame or Spark

OXYGEN – Normal Air

FUEL – Any Combustible Material (Items that catch fire and burn easily)

Alert the person in charge if you smell smoke or if a door feels hot.

DO NOT OPEN THE DOOR!

SMOKING

Never leave smokers unsupervised. Some people may not be able to handle smoking materials safely because of medication or reduced abilities.

Smoking materials should be stored for safekeeping. Strictly follow the smoking policy.

- Smoking is allowed in authorized areas only
- Be careful when you empty ashtrays
- Never use paper cups or rubbish bins for ashtrays
- NEVER permit smoking where oxygen is in use

STORAGE

Never store oily rags, paint cans, chemicals or other combustibles in closed areas.

FAULTY WIRING

Inspect all equipment that you use and report any defects. Do not use faulty equipment.

- Frayed power cords
- Overloaded circuits
- Overheated equipment
- Improperly earthed equipment

AEROSOL CANS

Never burn aerosol cans. Never use an aerosol spray near open flames or cigarettes. The container may explode.

IN CASE OF FIRE

Be sure you know the organisation's Fire Emergency Procedures:

- Understand fire and evacuation procedures
- Know the location of all exits
- Know where the fire alarms and extinguishers are located
- Know emergency telephone numbers

IN CASE OF FIRE, REMEMBER

A.R.C.E.

ALARM

RESCUE/EVACUATE

CONTAIN

EXTINGUISH

SOUND THE ALARM

EVACUATE THE PREMISES AND RESCUE ANY PEOPLE IN IMMEDIATE DANGER IF IT IS SAFE TO DO SO

CONTAIN THE FIRE BY CLOSING DOORS AND WINDOWS

EXTINGUISH THE FIRE, IF POSSIBLE, USING THE CORRECT EXTINGUISHER"

10. In addition to entries in the Policy Manual, a document headed “Staff Policy and Useful Information”, which was given to staff on their employment and a copy of which was kept in the individual employment files stated the following¹²²⁶:-

“**Fire safety** - During orientation you will be shown fire extinguishers, break glass fire exits etc. **Fire policy** – In the unlikely event of fire the Staff Nurse on duty will take control. If instructed you are expected to move residents from any potential fire to place of safety. Fire Awareness training will be ongoing. Both Rosepark and Croftbank are equipped with sophisticated fire and smoke detection systems and are built with Residents safety in mind.”

Care Plans

11. Each resident had a care plan. The function of the care plan was to describe the client’s care needs, to give their personal details and to document any medical or para-medical visits¹²²⁷. The care plans at Rosepark included inter alia a sheet recording the resident’s preferences as regards various features of their life and their care¹²²⁸, a moving and handling assessment¹²²⁹, and an assessment of the resident’s dependency¹²³⁰.

Smoking Policy

12. The only place where staff on the dayshifts were allowed to smoke was a smoking room in the staff room area on the lower ground floor. This was shown in Production 881F¹²³¹. Nightshift staff were also permitted to smoke in the residents’ smoking area off the Rose Lounge¹²³². Following the fire, evidence was found of smoking in the staff kitchen opposite the staff smoking room¹²³³. Staff were not supposed to smoke there, but Ms Meaney could envisage that happening as staff were

¹²²⁶ E.g. Pro 243, p. 19 (Isobel Queen’s record); Sadie Meaney, 18 February 2010, pm, pp. 34-36.

¹²²⁷ Allison Cumming, 19 November 2009, am, p. 54.

¹²²⁸ See e.g. Allison Cumming, 19 November 2009, am, pp. 68 -73, under reference to Pro 32, pp. 10ff.

¹²²⁹ See e.g. Allison Cumming, 19 November 2009, am, pp. 79-82 under reference to Pro 32, pp. 30ff.

¹²³⁰ See e.g. Allison Cumming, 19 November 2009, am, pp. 84-88 under reference to Pro 32, pp 34ff

¹²³¹ Allison Cumming, 19 November 2009, pm, pp. 27-28.

¹²³² Sadie Meaney, 19 February 2010, pm, pp. 79-81.

¹²³³ Pro 881Q, 881R; Sadie Meaney, 19 February 2010, pm, p. 81.

going off duty. If a member of staff were to be caught smoking in the residents' corridors they would be disciplined¹²³⁴.

13. There was a residents' smoking room off the day room and residents were only permitted to smoke in that room. A member of staff would take the resident into that room and observe him there¹²³⁵. If a member of staff became aware of a resident smoking in his room (e.g. by smelling smoke or seeing evidence of smoking activity) the smoking materials would be taken away from that resident¹²³⁶.

Note to Chapter 16

The important issue of the respective responsibilities of the Balmer Partnership and Matron is discussed fully in Chapter 18.

¹²³⁴ Phyllis West, 23 November 2009, am, p. 76.

¹²³⁵ Phyllis West, 23 November 2009, am, p. 78.

¹²³⁶ Phyllis West, 23 November 2009, pm, pp. 51-52.

CHAPTER 17 - FIRE SAFETY NOTICES

Introduction

1. There were a number of fire safety notices on the walls of Rosepark.

The Staff Fire Action Notice

2. Production 656 was a staff fire action notice which was located in the foyer area at the time of the fire. It was in the following terms:-

“STAFF FIRE ACTION

IN THESE PREMISES THE FIRE WARNING IS GIVEN BY THE CONTINUOUS SOUNDING OF A SIREN

ON DISCOVERING A FIRE

- (a) RAISE THE ALARM BY OPERATING THE NEAREST FIRE ALARM CALL POINT.
- (b) TACKLE THE OUTBREAK WITH A FIRE EXTINGUISHER, BUT ONLY IF IT IS SAFE TO DO SO, OTHERWISE LEAVE THE BUILDING AND PROCEED TO THE ASSEMBLY POINT AT MAIN DOOR

ON HEARING A WARNING OF FIRE

- (a) ALERT ALL PERSONS UNDER YOUR CHARGE – OR MAKE SURE THAT THEY HAVE BEEN ALERTED.
- (b) ALL PERSONS SHOULD EVACUATE THE PREMISES QUICKLY BUT CALMLY BY THE NEAREST EXIT AND PROCEED TO THE ASSEMBLY POINT AT MAIN DOOR OR FRONT CAR PARK. DO NOT DELAY THE DEPARTURE BY COLLECTING COATS OR OTHER PERSONAL BELONGINGS.
- (c) BEFORE LEAVING, CHECK CLOAKROOMS AND TOILETS TO ENSURE THAT ALL PERSONS HAVE LEFT THE PREMISES.
- (d) CLOSE ALL DOORS OF ROOMS AND THOSE THROUGH WHICH YOU PASS ON LEAVING THE BUILDING.

- (e) DO NOT USE LIFTS AS A MEANS OF ESCAPE.
- (f) ENSURE THAT THE FIRE BRIGADE IS CALLED IMMEDIATELY YOU HEAR THE FIRE WARNING – DIAL 999 AND GIVE THE FULL POSTAL ADDRESS OF THE AFFECTED PREMISES WHEN CONNECTED WITH THE FIRE BRIGADE OPERATOR.
- (g) DO NOT RE-ENTER THE BUILDING UNTIL A FIRE BRIGADE OFFICER HAS STATED THAT IT IS SAFE TO DO SO.”

This was a pre-printed standard form notice, apart from the addition of the words “SIREN”, “MAIN DOOR” and “MAIN DOOR OR FRONT CAR PARK’. Further copies of the same notice, without those additions, were on the wall in the staff room on the lower floor¹²³⁷.

“In the event of a fire”

3. Next to the fire alarm panel (with copies also in Matron’s office and the staff room¹²³⁸) was located a notice in the following terms¹²³⁹:

“IN THE EVENT OF A FIRE

- PERSON IN CHARGE TO DIAL 999 – THEN CALL BOTH EMERGENCY CONTACTS NAMED ON KEY STAFF TELEPHONE LIST.
- RESPONSIBLE PERSON TO BE NAMED TO MEET FIRE CREWS ON ARRIVAL, IN ORDER TO PROVIDE THEM WITH ACCURATE INFORMATION AND SUPPORT – ON NIGHT DUTY, THE NAMED PERSON WOULD BE THE E.N.
- CLOSE ALL FIRE DOORS – IN ORDER TO PREVENT SPREAD OF FIRE
- EVACUATE RESIDENTS IMMEDIATELY INVOLVED NEAR THE FIRE AREA – THEN CONTINUE TO EVACUATE THE OTHERS SYSTEMATICALLY AND CALMLY.

¹²³⁷ Pro 881I, 881L; Sadie Meaney, 19 February 2010, pm, pp. 68-71.

¹²³⁸ Sadie Meaney, 22 February 2010, am, p. 6.

¹²³⁹ Pro 334H

- LEAVE ALL VALUABLES, BAGS, JACKETS, ETC., WHERE THEY ARE! DO NOT TAKE MATERIAL THINGS – SAVE YOURSELF AND THE RESIDENTS

- CHECK LIST – TO BE CALLED BY NAMED PERSON – TO ENSURE ALL RESIDENTS AND STAFF ARE SAFELY OUT OF THE BUILDING

- OFF-DUTY STAFF COMING IN TO HELP WITH EVACUATION – TICK NAME OFF ON CHECK LIST WHICH WILL BE ON MAIN OFFICE DOOR. IF YOUR NAME IS NOT ON LIST – ADD IT TO LIST SO THAT WE KNOW EXACTLY WHO IS IN THE BUILDING”

“Checklist for evacuation”

4. Also adjacent to the fire alarm panel (and on the walls in Matron’s office and the staff room¹²⁴⁰) was a notice in the following terms¹²⁴¹:

“PREVENTION OF FIRE – POINTS TO REMEMBER
CHECKLIST FOR EVACUATION

1. CHECK TELEPHONE NUMBERS OF STAFF NAMED ON THE FIRE LIST ARE CORRECT.

2. FIRE EXITS ARE UNOBSTRUCTED AND AVAILABLE.

3. FIRE ALARMS AND EMERGENCY LIGHTS ARE IN GOOD WORKING ORDER

4. FIRE FIGHTING EQUIPMENT AVAILABLE AND READY FOR USE

–

BLACK FIRE EXTINGUISHERS FOR ELECTRICAL APPLIANCES ONLY
RED FIRE EXTINGUISHERS (WATER) FOR NON-ELECTRICAL MATERIALS.

5. ALL MEMBERS OF STAFF MUST KNOW –

○ HOW TO RAISE THE ALARM

○ HOW TO CALL THE EMERGENCY SERVICES IN CASE OF UNFORESEEN CIRCUMSTANCES

¹²⁴⁰ Sadie Meaney, 22 February 2010, am, p. 6.

¹²⁴¹ Pro 334I

- KNOW WHERE THE FIRE ESCAPES ARE
 - IF YOU FIND THE FIRE – LOOK TO SEE IF THERE IS SMOKE COMING FROM UNDER THE DOOR
 - DO NOT ATTEMPT TO TOUCH THE HANDLE OF THE DOOR
 - WITH THE BACK OF YOUR HAND – FEEL IF THE DOOR IS HOT – IF IT IS, DO NOT ENTER THE ROOM – IF THERE IS NO SMOKE AND THE DOOR IS NOT HOT – CHECK THE ROOM TO FIND THE CAUSE FOR THE ALARM
 - DO NOT PUT YOURSELF AT RISK AT ANY TIME – TACKLE THE FIRE ONLY IF IT IS SAFE TO DO SO (IF IT IS SMALL AND YOU THINK YOU CAN MAINTAIN AND EXTINGUISH IT)
6. DO WHAT THE PERSON IN CHARGE DIRECT YOU TO DO SO AS TO ACT MORE QUICKLY
 7. NO STORAGE OF ANY KIND TO BE LEFT ON STAIRCASES – NO FIRE ESCAPE DOORS BLOCKED AT ANY TIME
 8. NIGHT STAFF MUST BE EXTREMELY VIGILANT – MAKE SURE FIRE DOORS ARE ALL CLOSED AND PLUGS ARE PULLED OUT
 9. KITCHEN & LAUNDRY – SPECIAL ATTENTION TO MAKE SURE MACHINES AND EQUIPMENT ARE TURNED OFF AND PLUGS PULLED OUT
 10. FOR EVACUATION OF NON-AMBULANT PERSONS WHEELCHAIRS SHOULD BE EASILY ACCESSED AT SPECIAL POINTS ON EACH FLOOR”

Emergency Plan in Operation

5. It was clear from the evidence of the Balmer Partnership and all staff who gave evidence that it was the accepted practice in Rosepark that, when the fire alarm sounded, after the fire alarm panel had been consulted to ascertain the zone in which the alarm emanated, there would be a search of that zone to confirm there was a fire before the Fire Brigade would be called. That was inconsistent with the information in the notices and would have been ascertained from questioning members of staff, those who gave evidence to the Inquiry presenting a reasonable cross-section thereof.

CHAPTER 18: FIRE SAFETY: ROLES AND RESPONSIBILITIES

Management

1. The partnership, as employers of the staff at Rosepark, had statutory duties as regards fire safety. In terms of the Health and Safety Policy Manual of the Home at the time of the fire, Mr and Mrs Balmer were identified as the persons with overall responsibility for health and safety within the premises¹²⁴². In practice, Mr Balmer was the person to whom any health and safety issues were referred¹²⁴³.
2. Within the partnership, Mr Balmer was the individual who took responsibility for fire safety. He was the person responsible in the organization for fire policy¹²⁴⁴. In practice, Mrs Balmer and Alan Balmer did not have any role in relation to fire safety¹²⁴⁵.
3. Although Mr Balmer accepted ultimate responsibility for the policies of the Home, he stated that he left the formulation of policy generally to Matron. This was exemplified by the Fire Brigade Union strike. It was effectively left to the Matrons of the two homes to develop a plan to deal with that strike¹²⁴⁶.

Matron

Responsibility in terms of the “Health and Safety Policy Manual of the Home” (Production 259)

4. The document “Health and Safety Policy Manual”, stated that Matron had a responsibility (described as a “statutory duty”) to communicate the health and safety policy to all employees¹²⁴⁷. There was no evidence which I accepted the Balmer Partnership specified in writing or verbally to her that this was her responsibility.

¹²⁴² Pro 259, p. 19.

¹²⁴³ Sadie Meaney, 18 February 2010, am, pp. 102-103.

¹²⁴⁴ Thomas Balmer, 6 May 2010, am, p. 10; Alan Balmer, 2 June 2010, am, p. 9.

¹²⁴⁵ Thomas Balmer, 5 May 2010, pm, p. 2.

¹²⁴⁶ Alan Balmer, 3 June 2010, am, pp. 27-28.

¹²⁴⁷ Pro 259, p. 19.

Ms Meaney's understanding of her role

5. Sadie Meaney had received no induction when she started work at Rosepark. When she was appointed Matron, Mr and Mrs Balmer had no discussion with her about what her responsibilities were to be. Specifically, she had never had a discussion with Mr and Mrs Balmer in which they had told her what her responsibilities were in relation to health and safety¹²⁴⁸.

6. She took the view that fire was not within her remit¹²⁴⁹. She understood that Thomas Balmer was responsible for deciding what the fire policy was at Rosepark, and that he and Mr Clark were responsible for matters of fire safety¹²⁵⁰. They dealt with such matters as the fire alarm panel and fire extinguishers. Any concerns about fire would be taken to Mr Balmer or to Mr Clark¹²⁵¹. She would not have known how to activate the fire alarm system¹²⁵².

7. Ms Meaney had responsibility for induction training and also for organizing training for existing staff in relation to various aspects of their work¹²⁵³. She accepted that she gave staff “fire awareness” at induction. But her view was that “What I was expected to do as Matron is to give a fire induction, an awareness of fire, that’s my remit, no more than that, as Matron”. It would not have been practicable for her to take on fire training given all the other matters she had to deal with. If there was to be any follow up training, Mr Balmer would have had to arrange that¹²⁵⁴. Ms Meaney did not consider that it was part of her remit to organise fire drills. So far as she was concerned it was Mr Balmer’s job to make sure that fire drills were carried out¹²⁵⁵.

8. Page 6 of production 311 was headed “Fire Policy” and identified Mr Balmer as the responsible person and Matron as the “person responsible for implementing policy”. This document was created without the Matron’s knowledge, signature or

¹²⁴⁸ Sadie Meaney, 18 February 2010, am, pp. 103-105.

¹²⁴⁹ Sadie Meaney, 23 February 2010, am, p. 68.

¹²⁵⁰ Sadie Meaney, 18 February 2010, am, p. 103, 19 February 2010, pm, p. 11.

¹²⁵¹ Sadie Meaney, 18 February 2010, am, pp. 105-106.

¹²⁵² Sadie Meaney, 23 February 2010, pm, pp. 29-31.

¹²⁵³ Sadie Meaney, 19 February 2010, pm, pp. 28-29.

¹²⁵⁴ Sadie Meaney, 19 February 2010, pm, pp. 27-32.

¹²⁵⁵ Sadie Meaney, 18 February 2010, pm, pp. 18, 26.

approval. This appeared in a collection of apparently superseded documents from a filing cabinet in Mr Balmer's office. It did not appear in the Policy Manual, production 259¹²⁵⁶. At the time of the anticipated Fire Brigade strike, Mr Balmer had shown this document to Ms Meaney and asked her to get something together. She had not previously seen it. She was surprised to see herself described as the person responsible for implementing fire policy: she had never been told that she had such a responsibility¹²⁵⁷. The document specified testing procedures for the fire alarm system which, so far as she was concerned, were Mr Balmer's responsibility and which he had delegated to Mr Clark¹²⁵⁸. No steps were taken to articulate to the Matron what continuing responsibilities for fire safety were within her remit.

Mr Balmer's evidence about Matron's role

9. Mr Balmer, on the other hand, appears to have taken the view that Matron had a wider responsibility for fire safety matters, including:

9.1. Responsibility for all training and drills¹²⁵⁹.

9.2. Responsibility for making sure that there was a regime in place for fire alarm testing and fire extinguisher checks¹²⁶⁰.

9.3. Indeed, he appeared to take the view that it was Matron's responsibility to carry out a suitable and sufficient fire risk assessment.

And faced with the prospect of a Fire Brigade Union strike, he effectively left it to the two Matrons to decide what to do.

¹²⁵⁶ Thomas Balmer, 6 May 2010, am, pp. 10-20, 30-31.

¹²⁵⁷ Sadie Meaney, 18 February 2010, am, pp. 106-108, 19 February 2010, pm, p. 32.

¹²⁵⁸ Sadie Meaney, 19 February 2010, pm, pp. 24-26.

¹²⁵⁹ Thomas Balmer, 4 May 2010, am, p. 90.

¹²⁶⁰ Thomas Balmer, 6 May 2010, am, pp. 24-28.

Mrs Boyle

10. Mrs Boyle, the previous Matron, when asked who was responsible for fire safety, stated that this was Mr Balmer and Mr Clark. However she stated that she had responsibility for training and for making sure there was a regular check on the fire alarm system, although she also said that Mr Balmer and Mr Clark were responsible for this¹²⁶¹.

Observations

11. Ms Meaney's view of matters was consistent with certain other features of the history and management of the Home.

11.1. Mr Balmer was responsible for the building and its systems. He entered into maintenance contracts. Mr Clark answered to Mr Balmer in respect of matters of maintenance.

11.2. Mr Balmer had, when the Home opened, carried out fire alarm testing himself. He later delegated this task to Mr Clark.

11.3. Mr Balmer had, as a matter of history, personally arranged for the lectures from Mr McNeilly.

11.4. Mr Balmer took the lead in introducing the Fire Safety Video to the staff.

11.5. Mr Balmer expected Matron to keep him informed without reservation about every aspect of the day to day management within the home.

11.6. Ms Meaney gave evidence that she felt "we should be doing more about fire". She had raised the matter with Mr Balmer. He had indicated the building was state of the art and did not do anything. It was for that reason, in the self assessment form for the Care Commission in December 2003, under "Areas for

¹²⁶¹ Brigid Boyle, 16 February 2010, am pp. 7-9.

development/improvement”, the following entry “continual fire safety training for all staff”. (Sarah Meaney 23 February 2010 am 56-59 and 24 February 2010 pm 27-28). Her evidence was that she decided to bring this to the attention of the Care Commission in the hope that they might intervene. Matron was clearly of the view that “something must be done” but Mr Balmer was not disposed to do so. In my view the entry by Matron in the self assessment form for the Care Commission in January 2004 is consistent with the position that existed in the Care Home that fire safety issues were for Mr Balmer and not for Matron.

12. There was no evidence which I accepted that the Balmer Partnership indicated verbally or in writing what they considered to be the responsibilities of Matron in respect of fire safety. As I have already observed, the Balmer Partnership expected Matron to keep them informed without reservation about every aspect of the day to day management within the Home (paragraph 11 of Chapter 4 hereof). She was accountable to Thomas Balmer on a daily basis and he was aware of what she was doing. He must have been aware that she was not involved in fire safety matters at Rosepark. Her responsibilities related to residents’ care and nursing issues. At no time was it brought clearly to her attention that she was responsible for fire safety policies, training, equipment, fire alarms and drills or their records, procedures or risk assessments. She had no fire safety responsibilities in terms of her employment contract, legislation, or as a matter of fact on a day to day basis. She was only involved in a basic staff introductory fire safety programme of fire awareness. When specifically asked by Thomas Balmer she assisted in an emergency contingency plan to cover a threatened fire strike.

13. If management did, in fact, wish Ms Meaney to take responsibility for matters of fire safety, it would have been appropriate (a) for her specific duties to be articulated in writing (b) for her competence to undertake this task to be assessed; (c) for her to be provided with appropriate training and resources to carry out these duties and (d) for arrangements to be in place to monitor what she was doing in respect of these duties. No such steps were taken.

Staff Nurses

14. Amongst the responsibilities of staff nurses was the following: “To ensure a sound knowledge of the fire procedure, position of fire extinguishers and break glass points”¹²⁶². In addition, the nurse in charge of a shift had particular responsibilities in the context of fire safety¹²⁶³. She was expected to take charge of the situation¹²⁶⁴. In terms of the fire procedure, she had to appoint staff to go and investigate the relevant area, and if a fire was reported, to appoint someone to phone 999 and to send other staff to the area¹²⁶⁵. The position of nurse in charge on the nightshift has particular challenges, because the daytime support network is not available¹²⁶⁶.

15. Ms Queen appears to have understood that responsibility rested with everybody in the building. That was a misunderstanding of her role as nurse in charge¹²⁶⁷. That was to be expected as she had not been provided with any training in her role as nurse in charge on the nightshift.

Joe Clark

16. Mr Clark had been given specific responsibility for carrying out fire alarm tests¹²⁶⁸ and, more generally, undertook maintenance of the fire alarm system.

17. Mr Balmer had trained Mr Clark in the operation of the alarm panel at the time when he asked him to take on the weekly tests¹²⁶⁹.

18. In practice, Mr Clark had come to be regarded as the person to whom nursing staff would turn for guidance in relation to the operation of the fire alarm system.

18.1. He typically led the discussion following fire drills.

¹²⁶² Allison Cummings, 19 November 2009, am, pp. 47-48, under reference to Pro 399, p. 21; Isobel Queen, 2 December 2009, am, p. 23.

¹²⁶³ Sadie Meaney, 19 February 2010, pm, p. 59; cp Anne Jarvie, 21 July 2010, am, pp. 133-137.

¹²⁶⁴ Thomas Balmer, 6 May 2010, am, p. 99

¹²⁶⁵ Sadie Meaney, 19 February 2010, pm, pp. 59-60.

¹²⁶⁶ Anne Jarvie, 21 July 2010, am, pp. 136-138.

¹²⁶⁷ Sadie Meaney, 23 February 2010, pm, pp. 12-13.

¹²⁶⁸ Sadie Meaney, 18 February 2010, am, p. 114.

¹²⁶⁹ Joseph Clark, 21 January 2010, am, p. 71.

18.2. He was the person to whom staff nurses would turn if they were unsure what to do in response to a fire alarm. This was exemplified by the incident involving the false alarm in December 2003: see later.

19. It was inappropriate that he should have come to have this informal role.

19.1. He had no qualification or expertise in fire safety.

19.2. He had an inadequate grasp of key issues relating to the fire alarm system. Even after the fire, there is evidence that he tried to reset the system at Croftbank before the fire service arrived¹²⁷⁰.

20. Management appear to have delegated responsibilities to Mr Clark in respect of the fire alarm system without adequately clarifying what he was to do. Mr Balmer assumed that Mr Clark would keep a record of false alarms, but did not give Mr Clark an instruction to that effect. Nor did he himself check whether such a record was being kept¹²⁷¹.

Staff generally

21. Staff other than the nurse in charge were expected, in an emergency, to act under the instructions of the nurse in charge.

22. The fire policy documentation in the Manual envisaged that any member of staff might require to engage in emergency fire-fighting activities.

¹²⁷⁰ Pro 1115, p. 10; Alan Balmer, 3 June 2010, pm, pp. 89-93.

¹²⁷¹ Thomas Balmer, 4 May 2010, pm, pp. 42-43.

Note on Chapter 18

On behalf of the Balmer Partnership it was recognised that Thomas Balmer was the person responsible for the organisation of fire policy. Mrs Ann Balmer and Alan Balmer did not have any role in relation to fire safety. Thomas Balmer recognised that, as the responsible person, he had the ultimate responsibility for addressing issues to do with fire safety. It was suggested on behalf of the Balmer Partnership that it was not necessary for the Inquiry to determine the roles of various individuals in relation to the responsibility for fire training because it was accepted that there was a confusion about the precise demarcation of responsibility about matters of fire safety. I do not agree. I consider that fairness to the Matron and Isobel Queen require that I state my views on this matter.

Thomas Balmer was responsible for fire policy and fire safety. He was the duty holder. There were no verbal or written instructions or statutory responsibility on Matron to deal with matters of fire safety. There was no assessment of her competence to undertake tasks in connection with fire safety and procedures. She had not been trained to enable her to carry out training duties. Resources were not available to her for that purpose. Steps which she might have taken in this connection were not monitored.

It was pointed out on behalf of Thomas Balmer that Isobel Queen did not appear to understand her role in relation to taking charge of the situation in terms of the appropriate fire procedure. This was because she had received no training.

It is also perhaps significant that the Care Commission direct my attention to Matron's evidence that she had some concerns about continual fire safety training for staff and this was raised in the self evaluation in January 2004 – very shortly before the fire.

CHAPTER 19: THE EMERGENCY PLAN

Actions to be followed in the event of the fire alarm sounding

1. The procedure which was to be followed in the event of the fire alarm sounding at Rosepark was as follows¹²⁷²:

- (1) Staff were to gather at the fire alarm panel.
- (2) The staff nurse on duty would take charge.
- (3) The nurse in charge would send two people to the zone indicated on the fire alarm.
- (4) One of those would come back to report whether or not it was a fire or a false alarm.
- (5) If there was a fire, the other person would immediately start evacuating from that area into the next zone; the staff nurse would nominate someone to phone the Fire Brigade, before sending others to assist.

2. The panel should not be reset until the zone had been entirely checked. Alan Balmer's view was that the alarm should not be silenced until that point either¹²⁷³.

3. This procedure applied both to dayshift and to nightshift¹²⁷⁴.

4. The procedure also applied irrespective of the location of the alarm. In particular, it applied to alarm indications in the attic¹²⁷⁵. However, Alan Balmer stated that, in the event of an alarm indication in the attic, he would expect staff to check the LED indicators in the corridor, and, if they found an indicator activated, to phone the

¹²⁷² Sadie Meaney, 18 February 2010, am, pp. 145-146, 19 February 2010, am, pp. 87-88; Thomas Balmer, 30 April 2010, pm, pp. 1-2; Anne Balmer, 15 July 2010, am, pp. 87-88.

¹²⁷³ Alan Balmer, 3 June 2010, pm, pp. 38-39.

¹²⁷⁴ Alan Balmer, 3 June 2010, pm, p. 30.

¹²⁷⁵ Alan Balmer, 3 June 2010, pm, p. 33.

Fire Brigade straight away at that point. If there was no such indication, the nurse in charge would have to decide whether or not to phone the Fire Brigade straight away or to investigate further within the attic area¹²⁷⁶.

5. Thomas Balmer repeatedly expressed a rider to the procedure to the effect that:

“particularly in the evening, on night shift, when the numbers were reduced, if any staff nurse had concern or suspicion at all, dial 999, don’t necessarily go to the zone. If she had a concern, immediately dial 999 but she would still have to send someone to that area to determine if, indeed, it was an incident, because the fire brigade would require that information on arrival to the home”¹²⁷⁷.

Likewise, Mrs Balmer stated¹²⁷⁸:

“any talks they were always told to use their own initiative. If they were wary or couldn’t find it, to dial 999 right away.”

As to this:-

5.1. The staff did not speak to any such qualification.

5.2. The scope of this rider, as it was expressed by Mr Balmer, was unclear when he first spoke to it, he stated that this was “further instructions to night staff”¹²⁷⁹. Later, he said “it’s always been the case, whether, no matter the time of day”¹²⁸⁰. Later again, he said that the caveat applied “particularly in the evening, on night shift”¹²⁸¹.

5.3. Mr Balmer agreed with the proposition “that the message that your staff were given was that you check to see if it was a false alarm before phoning the Fire Brigade”¹²⁸².

¹²⁷⁶ Alan Balmer, 3 June 2010, pm, pp. 32-33, 70-71.

¹²⁷⁷ Thomas Balmer, 29 April 2010, pm, pp. 44-45; 30 April 2010, am, pp. 119-121, pm, p. 4.

¹²⁷⁸ Anne Balmer, 15 July 2010, am, p. 89.

¹²⁷⁹ Thomas Balmer, 29 April 2010, pm, pp. 44-45.

¹²⁸⁰ Thomas Balmer, 30 April 2010, am, p. 119.

¹²⁸¹ Thomas Balmer, 30 April 2010, pm, p4.

¹²⁸² Thomas Balmer, 30 April 2010, pm, pp. 4-5; see also 29 April 2010, pm, pp. 45-46.

Documentation

6. This procedure was not written down anywhere at Rosepark¹²⁸³.
- 6.1. There was no document in the Policy Manual which recorded it¹²⁸⁴.
- 6.2. Thomas Balmer could not recall any document which set out the procedure¹²⁸⁵.
- 6.3. Alan Balmer had never seen a document at Rosepark which set out the procedure¹²⁸⁶.
- 6.4. Ms Meaney stated that she had never seen it written down¹²⁸⁷.
7. The document in the Policy Manual, and production 334H, each of which started “In the event of fire ...” were directed specifically to a situation where there was in fact a fire¹²⁸⁸. They therefore were incomplete statements of the emergency procedure to be followed at Rosepark, inasmuch as they did not set out the procedure to be followed in the event of a fire alarm.
8. The procedure was directly inconsistent with the procedure prescribed in the Staff Fire Notice production 656¹²⁸⁹, which stated

“ON HEARING A WARNING OF FIRE

...

(f) ENSURE THAT THE FIRE BRIGADE IS CALLED IMMEDIATELY YOU HEAR THE FIRE WARNING – DIAL 999 AND GIVE THE FULL POSTAL ADDRESS OF THE AFFECTED PREMISES WHICH CONNECTED WITH THE FIRE BRIGADE OPERATOR”

¹²⁸³ Thomas Balmer, 7 May 2010, am, p. 74.

¹²⁸⁴ Thomas Balmer, 30 April 2010, am, pp. 39-58 under reference to Pro 259.

¹²⁸⁵ Thomas Balmer, 30 April 2010, am, p. 63.

¹²⁸⁶ Alan Balmer, 4 June 2010, am, pp. 155-156

¹²⁸⁷ Sadie Meaney, 22 February 2010, am, p. 62.

¹²⁸⁸ Thomas Balmer, 30 April 2010, am, pp. 47-51

¹²⁸⁹ Thomas Balmer, 29 April 2010, pm, pp. 47-48; 30 April 2010, am, p. 31.

Mr Balmer expected staff to ignore that Staff Fire Notice¹²⁹⁰.

9. The procedure was also different from the procedure advised in the training video which was used at Rosepark¹²⁹¹.

10. It was also inconsistent with two documents which were found loose within the Fire Register, production 27.

10.1. One appeared to be the wording of a fire notice apt for use in a care home and which stated inter alia: ‘When the fire alarm sounds: 1 Close all doors and windows in the area. 2. Ensure Fire Brigade has been called. ...’¹²⁹².

10.2. The other was headed “Fire Instructions – In Case of Fire” and stated inter alia “The senior person present is responsible for ... ensuring that the Fire Brigade is called immediately on the sounding of the alarm”¹²⁹³.

Actions in the event of fire

11. The actions to be followed in the event of fire were set out in production 334H and (in slightly different terms) in the Policy Manual.

(1) The person in charge was to dial 999 and emergency contacts.

(2) A responsible person was to be named to meet the fire crews on arrival. On night duty this was to be the EN.

(3) All fire doors were to be closed to prevent the spread of the fire. Given that the cross corridor fire doors should have closed in any event, this may reasonably be understood to refer to bedroom doors¹²⁹⁴.

¹²⁹⁰ Thomas Balmer, 6 May 2010, am, pp. 32-34.

¹²⁹¹ Sadie Meaney, 19 February 2010, am, p. 88; see infra.

¹²⁹² Thomas Balmer, 10 May 2010, am, pp. 4-8

¹²⁹³ Thomas Balmer, 10 May 2010, am, pp. 8-13

¹²⁹⁴ Sadie Meaney, 22 February 2010, am, pp. 54-55; see also Pro 259, p. 25: “Contain the Fire by Closing Doors and Windows”.

(4) Residents immediately involved near the fire area were to be evacuated.

12. Notwithstanding the terms of production 334H:-

12.1. The nurse in charge might in fact nominate someone else to make the phone call to the Fire Brigade and to call in other members of staff¹²⁹⁵.

12.2. The person nominated to meet the fire crews would not necessarily be the Enrolled Nurse¹²⁹⁶.

12.3. The individual who had been left at the area would be expected to consider whether or not to engage in emergency fire-fighting¹²⁹⁷. This was mentioned in production 334I. It was also stated at p. 25 of the Policy Manual: “Extinguish the Fire, If Possible, Using the Correct Extinguisher”.

Staff understanding

13. The basic elements of the procedure outlined at paragraph 1 above were reasonably well understood by senior staff at least on the dayshift¹²⁹⁸. In particular, they understood that the Fire Brigade would only be called if a fire was actually found¹²⁹⁹. Staff on the nightshift were noticeably less confident about the procedure. Most of them understood the fundamental point that on the fire alarm sounding, the area would be investigated and if there was fire, the Fire Brigade called¹³⁰⁰, but some had never had any training in the fire procedure¹³⁰¹ and, relying on her own experience, Flora Davidson would have phoned the fire brigade immediately¹³⁰².

¹²⁹⁵ Phyllis West, 23 November 2009, am, pp. 94-95

¹²⁹⁶ Sadie Meaney, 22 February 2010, am, pp. 8-10, 42-44.

¹²⁹⁷ Sadie Meaney, 22 February 2010, am, pp. 51-52, 55-56.

¹²⁹⁸ Allison Cumming, 19 November 2009, pm, pp. 39-42, 45-50; Phyllis West, 23 November 2009, am, pp. 82-101; Eleanor Ward, 24 November 2009, pm, pp. 20-21; Patricia Taylor, 25 November 2009, am, pp. 108-111, 138; Sadie Meaney, 23 February 2010, pm, p. 33.

¹²⁹⁹ Sadie Meaney, 22 February 2010, am, p. 54.

¹³⁰⁰ Eleanor Ward, 24 November 2009, pm, pp. 19-26.

¹³⁰¹ Catherine Melia, Brian Norton, Flora Davidson. Isobel Queen claimed she had not been told the procedure, but there is evidence which would support the proposition that she had.

¹³⁰² Flora Davidson, 12 February 2010, am, pp. 21-24, 53-54.

14. There was, however, considerable doubt apparent in the evidence of staff in relation to the action to be taken in the event that the staff who had been sent to the zone did not find a fire.

14.1. Eleanor Ward stated that she did not know what she would have done in that circumstance¹³⁰³.

14.2. Allison Cumming stated that, in that event, the nurse in charge would probably go and check and would probably then phone Joe Clark to reset the alarm¹³⁰⁴. The Fire Brigade would not be called if no fire had been located¹³⁰⁵.

14.3. Isobel Queen likewise stated that she would phone Joe Clark¹³⁰⁶, and this was exemplified by her actions in relation to a false alarm in December 2003 (see below).

14.4. Patricia Taylor stated that in the first instance she would send the staff back to look more carefully, and if they still could not find anything, she would go and investigate herself. If she could not find anything she would report it to Matron or the Balmers¹³⁰⁷.

14.5. Phyllis West, by contrast, said that if the member of staff came back and said she could not locate the fire, she would call the Fire Brigade, although she acknowledged that this was not the procedure at the time¹³⁰⁸ and she was unsure whether or not she would start an evacuation in that circumstance¹³⁰⁹.

15. Staff who were on duty at the time of the fire had varied knowledge of the procedure:

¹³⁰³ Eleanor Ward, 24 November 2009, pm, p. 26.

¹³⁰⁴ Allison Cumming, 19 November 2009, pm, pp. 47-48.

¹³⁰⁵ Allison Cumming, 19 November 2009, pm, pp. 48-49.

¹³⁰⁶ Isobel Queen, 2 December 2009, am, pp. 27-28.

¹³⁰⁷ Patricia Taylor, 25 November 2009, am, pp. 109-111.

¹³⁰⁸ Phyllis West, 23 November 2009, am, pp. 94-96, 107-108.

¹³⁰⁹ Phyllis West, 23 November 2009, am, pp. 130.

15.1 Isobel Queen claimed that she had never been told what the Home's policy was in relation to what should happen if the fire alarm sounded¹³¹⁰. However, when asked what she would do, she recounted the basics of the fire procedure followed at the Home (with the exception that she stated that she herself would go and investigate the area)¹³¹¹. And there was evidence in the way Question 10 of her questionnaire had been answered from which one could properly infer that she was at the time of her induction told to check if it was a false alarm: see further below.

15.2 Brian Norton had not been told what the procedure on hearing the alarm was.

15.3 Yvonne Carlyle stated that what should happen would be under instruction from the nurse on duty. She would expect that they should check the home for any visible signs of fire. If there were visible signs of a fire she would expect the nurse to phone the Fire Brigade. If they couldn't find visible signs of fire, she would expect the nurse to reset the alarm¹³¹².

15.4 Irene Richmond put it succinctly¹³¹³:

“My understanding was that you checked to see if it was a fire; if there was a fire you phoned the Fire Brigade; if there wasn't a fire, well, obviously you carried about your duties”.

Origin of the policy

16. The procedure to be followed in the event of the fire alarm sounding set out above had been the procedure ever since the Home had opened¹³¹⁴.

17. The origin of the procedure was obscure.

¹³¹⁰ Isobel Queen, 2 December 2009, am, p. 25.

¹³¹¹ Isobel Queen, 2 December 2009, am, pp. 25-26.

¹³¹² Yvonne Carlyle, 27 November 2009, am, pp. 24-26.

¹³¹³ Irene Richmond, 27 November 2009, pm, p. 73.

¹³¹⁴ Thomas Balmer, 29 April 2010, pm, p. 43; 5 May 2010, am, pp. 17-18; Anne Balmer, 15 July 2010, am, pp. 85, 88-89.

17.1. Thomas Balmer attributed the policy to the original Matron, Ms Mackie¹³¹⁵. However, he came to this only after his initial assertion that the policy had been formulated on the basis from Mr McNeilly¹³¹⁶ had been challenged under reference to the evidence about the dates of Mr McNeilly's lectures.

17.2. Anne Balmer attributed the procedure to Mr McNeilly – or at least to “the fire officer involved”¹³¹⁷. She recalled that person giving a lecture before the Home opened where the procedure was outlined as the one to be followed¹³¹⁸. The advice as she recalled it was perhaps a little less definite: “I think the way the fire officer put it was that he didn't say not to phone the fire service right away. He said ... I can't remember how he put it. Maybe it was best to check first, or ... I don't know. I can't remember his actual words ...”¹³¹⁹. Mr McNeilly's evidence was, however, that his advice would always be to phone the Fire Service if the fire alarm sounded, even if there were a suspicion that it might be a false alarm¹³²⁰.

17.3. Mr Clark thought that Mr McNeilly had mentioned that this was the procedure to follow, but was not 100% sure¹³²¹.

17.4. One possibility is that the procedure was introduced following a training session with Mr Fotheringham of Comtec.

17.4.1. Mr Fotheringham came in before the Home first received residents and did a training session which would have been attended by Mrs Mackie, the Matron at the time¹³²².

¹³¹⁵ Thomas Balmer, 29 April 2010, pm, pp. 64-65; 30 April 2010, am, pp. 38-39.

¹³¹⁶ Thomas Balmer, 29 April 2010, pm, pp. 42-43, 48-50.

¹³¹⁷ Anne Balmer, 15 July 2010, am, p. 90.

¹³¹⁸ Anne Balmer, 15 July 2010, am, pp. 89-100.

¹³¹⁹ Anne Balmer 15 July 2010, am, pp. 99-100.

¹³²⁰ 25 January 2010, pm, pp. 53-60; see also Colin Power, 11 June 2010, pm, p. 35.

¹³²¹ Joseph Clark, 21 January 2010, am, p. 88.

¹³²² Thomas Balmer, 30 April 2010, am, pp. 97-99.

17.4.2. Had Mr Fotheringham been asked in the course of such a training session what staff should do if the fire alarm sounded, he would have outlined the procedure set out above.

18. The Balmers believed that the policy had been approved by the Fire Service. The essential basis for this belief would appear to be that that Mr McNeilly had given lectures at Rosepark on three occasions, and that other fire officers had given lectures at Croftbank in 1996 and 1997 and that no issue had been raised about the procedure to be followed¹³²³. But there was no satisfactory evidence that Mr McNeilly knew that the procedure which had been adopted at the Home was as stated above. In the course of two passages of evidence on this subject Mr Balmer stated: (a) that he had a specific memory of Mr McNeilly being told the procedure¹³²⁴; (b) that he had no specific memory of that¹³²⁵; (c) that his memory was that they did recount the fire actions¹³²⁶; and (d) that there was no discussion with Mr McNeilly about the issue of whether or not staff should phone 999 immediately on hearing the fire alarm¹³²⁷. Likewise, there was no satisfactory evidence that the fire officers who gave lectures at Croftbank were aware of the procedure. Alan Balmer did not attend those lectures. He concluded that those officers had approved the procedure on the basis that no one had raised any adverse comment about it with him following the lectures¹³²⁸. Mr McNeilly was emphatic that he would not have countenance any policy other than to phone the Fire Brigade when the fire alarm sounded. I was impressed with that evidence and accept it. There is no evidential base for a finding that the policy in operation at Rosepark had been approved by the Fire Service.

19. The following matters are relevant for the purposes of making the statutory determinations:

19.1. Irrespective of the source of the procedure, it would have been a reasonable precaution for the Fire Brigade to have been contacted immediately in the event that the fire alarm sounded at night.

¹³²³ Thomas Balmer, 29 April 2010, pm, pp. 63-66; 30 April 2010, am, pp. 16-18, 26-29.

¹³²⁴ 4 May 2010, p. 3.

¹³²⁵ 5 May 2010, p. 5.

¹³²⁶ 5 May 2010, p. 5.

¹³²⁷ 5 May 2010, p. 8.

¹³²⁸ Alan Balmer, 3 June 2010, pm, pp. 86-88.

19.2. Further, the system of fire safety management at Rosepark Care Home before the fire in January 2004 was seriously deficient. Among the deficiencies were the following:-

19.2.1. Failure to have this part of the emergency plan recorded in writing.

19.2.2. Failure to review this part of the emergency plan critically in light of the advice given on the fire safety video adopted in 1999, the Fire Brigade Union strike, or the false alarm in December 2003.

19.2.3. Failure to undertake a suitable and sufficient risk assessment, in which the adequacy or otherwise of this procedure would have fallen to be addressed.

These propositions are valid, whatever the origin, as a matter of history, of the procedure.

Note to Chapter 19

On behalf of the Balmer Partnership it was accepted that the appropriate procedure that ought to have been adopted was for the Fire Brigade to be contacted immediately in the event of a fire alarm being sounded at night. It is suggested that it is not necessary for the Inquiry to determine the assertions by the Crown that there were failures to have this part of the emergency plan recorded in writing. I do not agree. This was a significant matter. The evidence to that effect was overwhelming.

I have given effect to the submissions on behalf of SF&R.

CHAPTER 20: FIRE TRAINING AND FIRE DRILLS

Fire training

General observations

1. The purposes of fire safety training in the context of a care home include the following:-

1.1. To disseminate to the staff what the Homes' procedures are in the event of an emergency.

1.2. To make sure that staff are confident and can follow the required actions almost without thinking¹³²⁹.

1.3. To equip staff to act effectively in an emergency¹³³⁰.

1.4. To equip staff to undertake emergency fire fighting¹³³¹.

2. It is particularly important in a care home that staff are well-trained. In an office building, even if no-one tackles the fire successfully, the chances are that the occupants will evacuate themselves on hearing the fire alarm. In the context of a care home, there is a premium on effective first-aid firefighting, and effective action to safeguards residents¹³³².

3. In order to equip staff to act effectively in an emergency, it is necessary that there should be:

3.1. Induction training; and

¹³²⁹ Colin Todd, 26 July 2010, am, pp. 96-97.

¹³³⁰ Colin Todd, 26 July 2010, am, pp. 97-99.

¹³³¹ Colin Todd, 26 July 2010, am, pp. 104-105.

¹³³² Colin Todd, 26 July 2010, am, p. 99.

3.2. Regular refresher training¹³³³.

4. Staff need to understand how quickly a fire can develop – and that, accordingly, they will not have time to take advice or seek instructions¹³³⁴.
5. Management requires to communicate to staff that fire safety training is important and is not just a box to be ticked¹³³⁵.

The opening of the Home

1. Production 27 (the Fire Register) records a fire lecture on 11 February 1992, before the Home opened, and a further fire lecture on 28 February 1992.
2. Mr and Mrs Balmer both gave evidence that at least one of these lectures was given by Mr McNeilly¹³³⁶. However:

2.1. Mr Balmer recalled that Mr McNeilly gave three lectures. There are indeed records of Mr McNeilly giving three lectures, in November 1992, January 1993 and July 1995: see below.

2.2. It may be inferred from the terms of a letter dated 13 July 1992 in which Mr Balmer sought a fire service lecture (see below) that Mr McNeilly had not given a lecture to staff before the date of this letter¹³³⁷.

2.3. Mr Balmer's final position was that these lectures were probably given by Mrs Mackie, the Matron at the time¹³³⁸.

3. Mr Fotheringham of Comtec led a training session before the Home first took in residents¹³³⁹.

¹³³³ Colin Todd, 26 July 2010, am, pp. 99-100.

¹³³⁴ Colin Todd, 26 July 2010, am, pp. 100-102.

¹³³⁵ Colin Todd, 26 July 2010, am, p. 100

¹³³⁶ Anne Balmer 15 July 2010, am, pp. 89-

¹³³⁷ Thomas Balmer, 29 April 2010, pm, pp. 23, 54-55.

¹³³⁸ Thomas Balmer, 29 April 2010, pm, pp. 54-55.

¹³³⁹ Thomas Balmer, 30 April 2010, am, pp. 97-99.

Talks by professional fire officers

4. On 13 July 1992 Thomas Balmer wrote to the Divisional Commander of Strathclyde Fire Brigade in the following terms¹³⁴⁰:

“Our staff complement has now reached optimum level and I feel that the time is now opportune for a professional fire lecture to our staff.

Fire Officer Thomas McNeilly, who carried out inspection of the above premises prior to Health Board registration advised me to write to you for this purpose. I would be grateful if you could arrange this at your earliest convenience”.

5. Mr McNeilly attended at Rosepark and gave a talk on 19 November 1992¹³⁴¹. This was the first time a member of the Fire Service had given a lecture at Rosepark. This talk was attended by about 20 out of the 40-50 staff at the Home at that time¹³⁴². Mr and Mrs Balmer attended¹³⁴³. Mr McNeilly showed a video which showed a TV going on fire and the time taken for the flames to spread within the room. Mr Balmer was shocked at the speed with which the flame and smoke traveled. Mr McNeilly explained the uses of fire extinguishers and took staff through the building explaining various relevant features¹³⁴⁴. This was the first lecture which Mr McNeilly had given at Rosepark¹³⁴⁵.

6. On 30 November 1992, Mr Balmer wrote to Mr McNeilly in the following terms¹³⁴⁶:

“Thanks you for taking time and giving us the benefit of your professional experience in the prevention of fire. The staff found the talk very informative and reassuring in that Rosepark appears to be adequately protected in the event of fire.

A return visit to cover night shift would be appreciated on 14 January at 3 pm if that is suitable to you.”

¹³⁴⁰ Pro 1094, p. 17; Thomas Balmer, 29 April 2010, pm, pp. 50-51

¹³⁴¹ Pro 27, p. 7; Thomas Balmer, 29 April 2010, pm, pp. 51-52

¹³⁴² Thomas Balmer, 29 April 2010, pm, p. 52.

¹³⁴³ Thomas Balmer, 29 April 2010, pm, p. 61; Anne Balmer, 15 July 2010, am, p. 95.

¹³⁴⁴ Thomas McNeilly, 22 January 2010, pm, pp. 96-105; Thomas Balmer, 29 April 2010, pm, pp. 61-62, 30 April 2010, am, p. 19.

¹³⁴⁵ Thomas Balmer, 30 April 2010, am, pp. 24-25.

¹³⁴⁶ Pro 1094, p. 16; Thomas Balmer 29 April 2010, pm, pp. 52-53

7. On 14 January 1993 Mr McNeilly attended at Rosepark and gave a fire lecture¹³⁴⁷ to about 16 members of staff, a mixture of night and day staff¹³⁴⁸. Mr and Mrs Balmer did not attend this lecture¹³⁴⁹.

8. On 21 January 1993 Mr Balmer wrote to Mr McNeilly in the following terms¹³⁵⁰:

“Thank you once again for coming along and giving another fire talk to the remaining staff at Rosepark. The staff enjoyed the talk very much and now feel more aware and confident.”

9. On 11 November 1994, Mr Balmer wrote to the Divisional Commander in the following terms¹³⁵¹:

“Dear Sir

Fire Safety

In recognition of our lawful requirements, and in tandem with our ongoing policy on fire safety within Rosepark, I enquire as to the possibility of having a professional fire prevention officer speaking to our staff on this very important subject.

To cover all staff it may need to be two sessions which, of course, would be mutually arranged. Since our last talk there has been some staff movement, and we feel this professional input is essential, and something we would hope to organize on, perhaps, an annual basis. We will of course take your advice on this matter.”

10. On 28 July 1995 Mr McNeilly gave a fire lecture at Rosepark to about 15 members of staff¹³⁵². Mr and Mrs Balmer did not attend this lecture¹³⁵³. The sign up sheet for this lecture stated¹³⁵⁴:

“Each member of staff must attend a fire lecture yearly. One other lecture will be arranged for an evening.”

¹³⁴⁷ Pro 27, p. 8.

¹³⁴⁸ Thomas Balmer, 29 April 2010, pm, pp. 56-57.

¹³⁴⁹ Thomas Balmer, 29 April 2010, pm, p. 61; Anne Balmer, 15 July 2010, am, p. 96.

¹³⁵⁰ Pro 213, p. 11; Thomas Balmer, 29 April 2010, pm, p. 57.

¹³⁵¹ Pro 1094, p. 15; Thomas Balmer, 29 April 2010, pm, pp. 57-59

¹³⁵² Pro 27, p. 9; Thomas Balmer, 29 April 2010, pm, p. 59.

¹³⁵³ Thomas Balmer, 29 April 2010, pm, pp. 60-61; Anne Balmer, 15 July 2010, am, p. 96

¹³⁵⁴ Pro 27, p. 40; Thomas Balmer, 30 April 2010, am, pp. 97-99.

11. After this lecture, there were, in fact, no further fire lectures from members of the Fire Service at Rosepark¹³⁵⁵, although such input from the Fire Service was arranged for staff at Croftbank after it opened¹³⁵⁶.

12. Mr Balmer took no steps to organize such input on an annual basis¹³⁵⁷. He claimed that he had spoken to Ms Meaney about this. The passage is in the following terms¹³⁵⁸:-

“SHERIFF PRINCIPAL LOCKHART. ... He then asked you did you take any such steps after this date?

THE WITNESS: Other than speaking to Matron about it, no.

Examination in chief by MR WOLFFE (continued): Well you say other than speaking to Matron about it, did you speak to Matron about organising annual lectures for staff? – My main memory is that is, that is the case.

SHERIFF PRINCIPAL LOCKHART: Just a minute ... That you recall ... Did you speak to Matron about organizing annual lectures of staff? “My memory ...”

THE WITNESS: In discussion that would, that would be one of the topics we would discuss, yes ...

Examination in chief by MR WOLFFE (continued): Are you telling me that you told Matron that she should be organizing annual fire lectures for the staff? – No I’m not saying that. But in general discussion, of which we had general discussions that, it would be undoubtedly mentioned at one point in time.”

13. It is plain from the concluding question and answer that no instruction was given to Matron to organize annual lectures. Indeed, Ms Meaney’s evidence was that she had raised with Mr Balmer the question of having additional training in fire safety and that his reply had been that firemen used to come in, but that they had stopped providing that service¹³⁵⁹.

The video

14. The Home acquired a fire safety video in response to a sales flyer introducing the product¹³⁶⁰.

¹³⁵⁵ Thomas Balmer, 29 April 2010, pm, p. 68; 30 April 2010, am, pp. 98, 105-106.

¹³⁵⁶ Thomas Balmer, 29 April 2010, pm, pp. 67-68; 5 May 2010, am, p. 94.

¹³⁵⁷ Thomas Balmer, 4 May 2010, am, pp. 101-102.

¹³⁵⁸ Thomas Balmer, 4 May 2010, am, pp. 102-103.

¹³⁵⁹ Sadie Meaney, 19 February 2010, pm, pp. 34-35.

¹³⁶⁰ Thomas Balmer, 30 April 2010, am, p. 111.

15. The video was specific to a care home setting. Among other passages in the advice given in the video were the following:-

“Sync: (Presenter at Fire Door) I know fire doors can be a nuisance and if you’ve got the fancy ones that close automatically when the alarm goes you’ll often wonder why they need to be closed at night. But the rule is closed after 11 p.m. so closed they must be. Anyway you’ll see why later and why residents’ room doors should be closed.¹³⁶¹

...

Sync: (Presenter outside resident’s room)

...

Anyway while I continue my round here’s a quick recap on everything I’ve told you so far with a few other housekeeping tips on fire prevention. See you later.

VO: (Summary Sequence)

...

Ensure fire doors are closed after 11 p.m.

...

Make sure linen and other potentially flammable materials are stored away from heat sources in locked cupboards.

...

Sync: (Presenter in office) Ah, you’re back. So if we all get the fire prevention side of things right there’ll be less chance of a fire starting in the first place. But even so we still need to be prepared just in case. Now we all work in different sorts of buildings, some small, some large, some modern purpose built, others older converted properties. You may work mainly with able-bodied people or those not so mobile, The interesting thing is that wherever you work the same basic principles on how to handle an emergency involving fire still apply.

...

Even so there’s plenty you can do. The most important thing is to know your home’s emergency plan and your role in that plan.

VO: (Staff respond to alarm) If the alarm sounds the zone panel will light up identifying the location of the trouble. Some alarms especially in larger homes are linked directly to the fire brigade. Sill its someone’s job when the alarm goes to telephone the fire brigade. If it’s yours, do it, and do it every time. Don’t assume it’s a false alarm. It may well be, but you can never be sure. Stay calm and give the information asked for. If it’s not your role to make the call go to the area indicated on the panel and if you can, start to move people to a safe area.

¹³⁶¹ Pro 1645, p. 2,

Sync: (Presenter in office) Now establishments like ours are divided into what are called fire zones. The idea works like this.

VO: (Animated graphics) A zone is a number of rooms or an area between two fire doors. If a fire starts it can be contained in this zone for up to 30 minutes or more. So to start with you only need to evacuate the people in this zone to the next one to keep them safe.

Sync: (Presenter in office) Of course if there's a fire evacuation may not be that simple. First you need to identify where the fire is and which rooms are safe to enter.

VO (Care worker checks before entering room) If there's any sign of smoke coming under a door or the door handle is hot, don't enter.

Sync: (Presenter outside bedroom) If the door handle is hot then the room is probably well ablaze and you'll be allowing the fire and smoke to escape. See why it's important to keep bedroom doors closed all the time? ...

VO: (Animated graphic) If you can identify where the fire is, move those nearest to it first. Move them into the next safe zone without passing the source of the fire.

...

Sync: (Presenter) let's just recap on what to do in an emergency

VO: (Summary sequence) Know your role. Is it your job to call the fire brigade?

...

Know your fire zones.

...“

The video then contained a demonstration of the use of a fire extinguisher and description of the different types of fire extinguishers.

Sync: (Presenter leaving work) So prevention is the main priority right? Let's make sure a fire doesn't start in the first place. But if it does ensure you know what to do. Find out your home's emergency plan and your role in that plan.

Make it your job to know the fire zones, escape routes and emergency exits. Find out where alarm points and extinguishers are and how they work. In an emergency speed is the main priority. Act quickly but don't endanger yourself trying to help others.

So why don't you do what I do now, and put fire safety first.”

16. Mr Balmer took the video home to watch it personally. He considered that it was appropriate and, indeed, a big improvement on the previous video they had used,

in that it was specific to a care home setting¹³⁶². It was then viewed at the Home by Mr and Mrs Balmer and Matron¹³⁶³. They decided to implement it¹³⁶⁴.

17. On viewing the video:-

17.1. Mr Balmer recognized that the advice “Still it’s someone’s job when that fire alarm goes to telephone the fire brigade. If it’s yours, do it and do it every time. Don’t assume it’s a false alarm” was different from the practice at Rosepark¹³⁶⁵.

17.2. He did not apply his mind to the question of whether the procedure followed at Rosepark should be changed in light of the advice on the video¹³⁶⁶.

17.3. He did not consider taking further advice on the question of the appropriate procedure to be followed, for example from Strathclyde Fire Brigade¹³⁶⁷.

17.4. He did not consider whether it would be desirable to link the fire alarm system directly to the Fire Service¹³⁶⁸.

18. At some point, Alan Balmer also viewed the video, which was also used at Croftbank¹³⁶⁹. He could not recall whether the discrepancy between the procedure followed at Croftbank and the procedure outlined on the video had struck him at the time, but assumed that his reaction would have been that it was a generic video rather than one customized to their Care Homes¹³⁷⁰. The question of the procedures was not discussed amongst the partners following purchase of the video¹³⁷¹.

¹³⁶² Thomas Balmer, 30 April 2010, am, pp. 111-112.

¹³⁶³ Thomas Balmer, 30 April 2010, am, pp. 111-112.

¹³⁶⁴ Thomas Balmer, 30 April 2010, am, p. 112.

¹³⁶⁵ Thomas Balmer, 4 May 2010, pm, pp. 75-76.

¹³⁶⁶ Thomas Balmer, 4 May 2010, pm, p. 76; 5 May 2010, am, p. 10.

¹³⁶⁷ Thomas Balmer, 5 May 2010, am, pp. 21-22.

¹³⁶⁸ Thomas Balmer, 4 May 2010, pm, pp. 74-75

¹³⁶⁹ 3 June 2010, am, pp. 5-8.

¹³⁷⁰ Alan Balmer, 3 June 2010, am, pp. 14-15, pm, pp. 44-45, 50-51.

¹³⁷¹ Alan Balmer, 3 June 2010, am, p. 15.

The questionnaire

19. The video came in a pack with a multiple choice questionnaire, which was to be completed by staff after they had viewed the video¹³⁷². There was also an answer sheet, which set out the correct answers¹³⁷³.

20. Question 4 on the questionnaire was in the following terms:

“Regulations require that fire doors should be closed for the night at: (A) 9.00 pm; (B) 10.00 pm; (C) 11.00 pm; (D) Midnight.”

The correct answer was (C). Matron explained that this question did not really apply in the context of Rosepark because the doors were held open on magnetic catches which were released if the fire alarm sounded: if they had been ordinary fire doors they would have had to be closed¹³⁷⁴.

21. Question 9 on the questionnaire was in the following terms:

“You open the linen cupboard and find a small fire in some of the bed linen placed in the cupboard earlier that day and the first thing to do is: (A) Close the door and raise the alarm; (B) Remove any linen that hasn’t yet been damaged by fire; (C) Fetch a red fire extinguisher; (D) Start to evacuate the less able bodied of the home’s residents.”

The correct answer was (A).

22. Question 10 on the questionnaire was in the following terms:

“You are in charge of the home late at night when the fire alarm goes off. The first thing to do is: (A) Ensure that the whole building is evacuated as quickly as possible; (B) Check to see if it is a false alarm; (C) Tell all residents and staff to collect up their valuables; (D) Ensure that the fire brigade are called.”

23. The correct answer to this question, in terms of what was said on the video itself and on the answer sheet with the video¹³⁷⁵, was (D). However, the answer, if the questionnaire were to be completed in terms of the policy of the home, would have been (B). The answer sheet provided with the video made clear that the correct answer was (D).

¹³⁷² Thomas Balmer, 30 April 2010, am, p. 112

¹³⁷³ Thomas Balmer, 30 April 2010, am, p. 113.

¹³⁷⁴ Sadie Meaney, 18 February 2010, pm, pp. 2-5.

¹³⁷⁵ Pro 250; Sadie Meaney, 18 February 2010, pm, pp. 16-18.

24. Mr Balmer stated that he personally would have ticked (B), to reflect the practice and procedure in place at the Home. He would be quite content if his staff ticked (B) because that was the practice within the Home. He would possibly have expected new staff who were shown the video also to tick (B) on the basis of the fire policy as it would have been described to them by the person carrying out the induction¹³⁷⁶. By contrast, Alan Balmer stated that he would expect staff to tick (D) because that was the instruction in the video¹³⁷⁷. Ms Meaney initially stated that she would want to see answer (B) because that was the procedure at the Home¹³⁷⁸, but later that it would not surprise her if staff in fact answered (D) because that was what was on the video¹³⁷⁹.

Meetings to introduce the video

25. On 18 and 23 November 1999, meetings were held at which the video was introduced to the staff. Mr Balmer called and led the meeting on 18 November 1999¹³⁸⁰. It is unclear whether or not he was at the meeting on 23 November 1999 although he thought it likely that he was¹³⁸¹.

18 November 1999 meeting

26. This meeting was attended by 19 members of staff¹³⁸², including the Matron Sadie Meaney, Eleanor Ward (who was, by the time of the fire, nightshift sister), Patricia Taylor (who was, by the time of the fire, a dayshift sister, and who was the member of the staff who gave Isobel Queen her induction), and Irene Richmond¹³⁸³.

27. After some introductory remarks by Mr Balmer, the video was shown. The questionnaires were then handed out for staff to complete. Everyone filled in the

¹³⁷⁶ Thomas Balmer, 5 May 2010, am, pp. 35-36; see also 49-52.

¹³⁷⁷ Alan Balmer, 3 June 2010, pm, pp. 40-43.

¹³⁷⁸ 18 February 2010, pm, p. 31.

¹³⁷⁹ 22 February 2010, am, pp. 83-84.

¹³⁸⁰ Sadie Meaney, 18 February 2010, am, pp. 153-155; Thomas Balmer, 30 April 2010, am, pp. 107-110.

¹³⁸¹ Thomas Balmer, 5 May 2010, am, pp. 63-71.

¹³⁸² Pro 240, p. 22; cf Pro 27, p. 10; Thomas Balmer 5 May 2010, pm, pp. 8-9.

¹³⁸³ Irene Richmond, 27 November 2009, pm, pp. 75-86.

answers and Mr Balmer started to read out the answers from the answer sheet¹³⁸⁴. Staff started joining in¹³⁸⁵. There was a discussion, in the course of which, certain members of the nightshift staff pointed out that the video stated that as soon as the alarm sounded the fire brigade should be called. The outcome of this discussion was a re-affirmation of the procedure that the fire brigade should only be called if a fire was found¹³⁸⁶. Mr Balmer himself stated that staff were to check if there was a false alarm before phoning the Fire Brigade, and this was the clear message that staff were left with¹³⁸⁷. Although Mr Balmer stated that this was the consensus view or “collective decision”¹³⁸⁸, he accepted that ultimately it was his decision to re-affirm the practice that had been in place previously¹³⁸⁹ and staff recalled him telling them to check to see if it was a false alarm¹³⁹⁰.

28. Consistently with this discussion, questionnaires of staff who attended this meeting disclose, in relation to question 10:-

28.1. Both (B) and (D) ticked, but (D) crossed out (Eleanor Ward; Irene Richmond; Anne Daly¹³⁹¹; Margaret McCondichie; Linda Anderson)¹³⁹². Eleanor Ward changed her answer after a discussion during which Mr Balmer told them to check and see if it was a false alarm¹³⁹³.

28.2. Both (B) and (D) ticked (Patricia Taylor; Margaret McCurdie)¹³⁹⁴.

28.3. Only (B) ticked (Sadie Meaney; Anne Marie Ward; Jacqueline Higgins)¹³⁹⁵

¹³⁸⁴ Sadie Meaney, 18 February 2010, am, pp. 157-158; Thomas Balmer, 30 April 2010, am, p. 114.

¹³⁸⁵ Sadie Meaney, 18 February 2010, am, pp. 158-159.

¹³⁸⁶ Thomas Balmer, 30 April 2010, am, pp. 119-121; 4 May 2010, pm, pp. 76-79; 5 May 2010, am, pp. 14-15, 22-23, 56-57.

¹³⁸⁷ Thomas Balmer, 4 May 2010, pm, pp. 78-79, 5 May 2010, am, pp. 51-52.

¹³⁸⁸ Thomas Balmer, 4 May 2010, pm, pp. 77-79.

¹³⁸⁹ Thomas Balmer, 4 May 2010, pm, p. 79; 5 May 2010, am, pp. 20-21.

¹³⁹⁰ Sadie Meaney, 18 February 2010, pm, p. 13, 19 February 2010, am, pp. 58-59.

¹³⁹¹ Anne Daly, 11 February 2010, am, pp. 118-137

¹³⁹² Pro 401, p. 66; Pro 316, p. 43; Pro 445, p. 61; Pro 695, p. 54; Pro 417, p. 49; Sadie Meaney, 19 February 2010, am, pp. 54-67, 74.

¹³⁹³ Eleanor Ward, 24 November 2009, pm, pp. 33-35, 44-46; she was cross-examined vigorously on this but her evidence as a whole supports the proposition in the text.

¹³⁹⁴ Pro 403, p. 67; Pro 410, p. 44; Sadie Meaney, 19 February 2010, am, pp. 54-67

¹³⁹⁵ Pro 404, p. 40; Pro 412, p. 51; Pro 437, p. 48; Sadie Meaney, 19 February 2010, am, pp. 54-67

29. Mr Balmer claimed that there had also been a discussion about the closing of bedroom doors. His specific recollection appeared to relate to the advice in the video concerning identifying whether a door was hot. He claimed, however, to recall a discussion about the need to close doors, the outcome of which that the staff nurse on duty has the call, but to ensure at quieter times that the door was closed¹³⁹⁶.

30. At the end of the meeting, Mr Balmer collected the questionnaires and took them away to check them¹³⁹⁷. The next day he brought them to Matron and told her to put them in the staff files. A few days after that he brought the video and questionnaires to her and told her to show it to any new staff who came¹³⁹⁸.

23rd November 1999 meeting

31. This meeting was attended by thirteen members of staff¹³⁹⁹. Ms Meaney did not attend this meeting¹⁴⁰⁰, but Mr Balmer did¹⁴⁰¹.

32. Questionnaires from six members of staff who were at that meeting all answered (D) to question 10¹⁴⁰².

Training arrangements after the introduction of the video and up to the time of the fire

Induction

33. New members of staff were given an induction over the first three months of employment, covering various matters, including fire safety. The fire safety component did not differ as between nurses and carers. There were three elements to the induction¹⁴⁰³.

¹³⁹⁶ Thomas Balmer, 5 May 2010, am, pp. 74-76.

¹³⁹⁷ Sadie Meaney, 18 February 2010, pm, pp. 12-13.

¹³⁹⁸ Sadie Meaney, 18 February 2010, am, p. 161.

¹³⁹⁹ Pro 240, p. 23; cf Pro 27, p. 11; Thomas Balmer, 5 May 2010, pm, p. 10.

¹⁴⁰⁰ Sadie Meaney, 19 February 2010, am, p. 67.

¹⁴⁰¹ Rosemary Buckley, 25 November 2009, pm, pp. 54, 78-85.

¹⁴⁰² Sadie Meaney, 19 February 2010, am, pp. 67-73; Thomas Balmer, 5 May 2010, am, pp. 66-70.

¹⁴⁰³ Sadie Meaney, 18 February 2010, am, pp. 144-146.

33.1. The new member of staff was shown the video in the day room and required to complete the questionnaire.

33.2. The new member of staff was shown the layout of the building, the fire exits, the extinguishers and the fire panel.

33.3. The new member of staff would be told what to do if there was a fire – i.e. the Rosepark policy as to what to do when the fire alarm went off.

34. Mr Balmer expected that the member of staff undertaking the induction would tell the new member of staff about the fire procedure which was in fact to be followed at the Home. He did not issue any instruction to Matron or others that they were to so instruct new members of staff¹⁴⁰⁴.

35. Ms Meaney would delegate the task of inducting new members of staff to other senior nurses. Her expectation was that the nurse undertaking the induction would stay in the day room with the new member of staff, unless she were to be called away to deal with something else. She thought the questionnaire was given out after the video. She expected the nurse carrying out the induction to go through the questionnaire with the new member of staff after it had been completed¹⁴⁰⁵.

36. In practice, staff nurses to whom the task was delegated would leave new members of staff in the day room to watch the video and complete the questionnaire on their own¹⁴⁰⁶. If the new member of staff was a carer, rather than being told the full procedure, she might be told simply to go to the panel and do what the person in charge instructs¹⁴⁰⁷. In relation to Question 16, Phyllis West (who was one of the members of staff who undertook inductions) would have expected staff to answer (D), although she recognized that this was not the procedure followed at Rosepark¹⁴⁰⁸.

¹⁴⁰⁴ Thomas Balmer, 5 May 2010, am, pp. 40-45.

¹⁴⁰⁵ Sadie Meaney, 18 February 2010, am, pp. 146-150, pm, pp. 25, 28-29; 22 February 2010, am, pp. 80-82.

¹⁴⁰⁶ Phyllis West, 23 November 2009, am, pp. 120-121, 133; Tracey Farrer, 24 November 2009, am, p. 143; Flora Davidson, 12 February 2010, am, pp. 30-31.

¹⁴⁰⁷ Phyllis West, 23 November 2009, am, pp. 124-125.

¹⁴⁰⁸ Phyllis West, 23 November 2009, am, pp. 135-137

37. The nurse to whom the task had been delegated would bring the questionnaire to Matron's office. The new member of staff would not come to her office at that time. Matron would file the questionnaire, and, once the three month induction had been completed, transfer it to the individual staff member's file. A brief evaluation would be recorded in somewhat formulaic terms¹⁴⁰⁹. Ms Meaney would not herself correct the questionnaires of staff who had been given them by one of her senior colleagues¹⁴¹⁰.

Refresher training

38. Apart from the training which staff received at their induction, there was no other organized fire safety training for staff at Rosepark¹⁴¹¹. After induction, no further fire awareness training was provided to that member of staff¹⁴¹². Apart from a meeting to discuss the Fire Brigade strike, there were no staff meetings at which there was any significant discussion of fire safety¹⁴¹³. No one ever suggested to Matron that staff should be receiving periodic fire instruction¹⁴¹⁴.

39. The only additional fire safety training during this period was the exercise which was undertaken in anticipation of the Fire Brigade Union strike when various fire safety points were reinforced and discussed at a meeting¹⁴¹⁵.

40. Mr Balmer stated "Staff were expected and allowed to go off the floor during their working day ... to visit this video ... and peruse it at ... prescribed times"¹⁴¹⁶. He claimed that he would frequently find groups of staff in the dayroom perusing the video – sometimes a mixture of new staff and existing staff, and sometimes just existing staff¹⁴¹⁷. There is no evidence to support this practice.

¹⁴⁰⁹ Sadie Meaney, 18 February 2010, am, pp. 150-151, pm, pp. 20-24, 19 February 2010, am, pp. 9-11; 23 February 2010, am, pp. 107-109, pm, pp. 1-7

¹⁴¹⁰ Sadie Meaney, 23 February 2010, am, p. 106.

¹⁴¹¹ Sadie Meaney, 18 February 2010, pm, pp. 4-5, 28-30; 19 February 2010, am, p. 5

¹⁴¹² Sadie Meaney, 18 February 2010, pm, p. 37; 19 February 2010, pm, p. 3.

¹⁴¹³ Sadie Meaney, 19 February 2010, pm, pp. 93-84.

¹⁴¹⁴ Sadie Meaney, 18 February 2010, pm, p. 41

¹⁴¹⁵ Sadie Meaney, 19 February 2010, am, p. 4.

¹⁴¹⁶ Thomas Balmer, 4 May 2010, pm, pp. 44-45.

¹⁴¹⁷ Thomas Balmer, 4 May 2010, pm, pp. 46-48.

41. Matron stated that the video was available for anyone that wanted to watch it “if they wanted a refresher”¹⁴¹⁸.

SVQ courses

42. Rosepark encouraged care staff to undertake SVQ courses. Management and Matron did not understand these to have any in depth fire training content¹⁴¹⁹. This was borne out by the evidence of Maureen King¹⁴²⁰.

Training in the operation of the fire alarm panel

43. Training in the operation of the fire alarm panel was patchy. Eleanor Ward, the nightshift sister, who had been on the staff since 1997, had never had the operation of the panel explained to her¹⁴²¹. Flora Davidson, a part-time nightshift staff nurse could not remember receiving any instruction in how the panel operated and when she was the nurse in charge did not know how it operated¹⁴²².

Training in evacuation techniques

44. During the time when Ms Meaney was Matron, the staff never undertook physical exercises to give them experience of what would be involved in an evacuation¹⁴²³. Ms Meaney never took staff to a particular area for a discussion about how, in a practical sense, an evacuation would be carried out¹⁴²⁴.

¹⁴¹⁸ Sadie Meaney, 18 February 2010, pm, p. 4

¹⁴¹⁹ Sadie Meaney, 19 February 2010, am, p. 43-44; Thomas Balmer, 5 May 2010, pm, pp. 4-5.

¹⁴²⁰ Maureen King, 16 April 2010.

¹⁴²¹ Eleanor Ward, 24 November 2009, pm, pp. 22, 24-26.

¹⁴²² Flora Davidson, 12 February 2010, am, pp. 20-21.

¹⁴²³ Sadie Meaney, 19 February 2010, am, pp. 93-94; see also Phyllis West, 23 November 2009, am, p.

127.

¹⁴²⁴ Sadie Meaney, 23 February 2010, am, p. 81.

Training in the use of fire extinguishers

45. No arrangements were made before the fire in January 2004 to give staff at Rosepark a chance to practice using a fire extinguisher¹⁴²⁵.

“Ongoing” fire training

46. A Staff Policy and Useful Information document given to staff on their employment and a copy of which was kept in the individual files stated inter alia; “Fire Awareness training will be ongoing”¹⁴²⁶. The pre-inspection return to the Care Commission dated 12 January 2004 likewise used the word “ongoing”. Ms Meaney explained that in relation to fire training this was “ongoing” in the sense that senior nurses would be making sure that staff did what they were told, for example when the fire alarm sounded¹⁴²⁷. There was some evidence that a senior nurse might go over fire safety matters with staff from time to time¹⁴²⁸.

47. Mr Balmer stated: “My memory is that we did have annual, ehm, awareness sessions”¹⁴²⁹. On being pressed about this, he stated that he had never attended any such session and resorted ultimately to saying “Care Managers and Matron would organize ... fire training within that remit, and if I was requested to be there I would be there”¹⁴³⁰. No other witness spoke to such sessions taking place. I am not prepared to conclude that they did.

Training of bank nurses

48. Ms Meaney thought that bank staff would not necessarily get the full induction, though they should be shown the layout of the building, the fire exits, extinguishers and panel¹⁴³¹. Ms Meaney thought that they would be told the fire procedure¹⁴³².

¹⁴²⁵ Sadie Meaney, 19 February 2010, am, pp. 103-104, pm, p. 22; Thomas Balmer, 5 May 2010, am, p. 91; Alan Balmer, 3 June 2010, pm, pp. 17-19.

¹⁴²⁶ Sadie Meaney, 18 February 2010, pm, pp. 34-36.

¹⁴²⁷ Sadie Meaney, 19 February 2010, am, pp. 49-52.

¹⁴²⁸ Sadie Meaney, 23 February 2010, am, pp. 81-82.

¹⁴²⁹ Thomas Balmer, 30 April 2010, am, p. 99.

¹⁴³⁰ Thomas Balmer, 30 April 2010, am, pp. 99-100.

¹⁴³¹ Sadie Meaney, 19 February 2010, am, pp. 53-54; 22 February 2010, am, pp. 87-88.

¹⁴³² Sadie Meaney, 22 February 2010, am, pp. 89-92.

48.1. Alexis Coster, a bank nurse who was on occasion the nurse in charge, had never been given any training or induction in relation to the operation of the alarm system or as to the procedure to be followed if the fire alarm went¹⁴³³.

48.2. Catherine Melia, another bank nurse who was on occasion the nurse in charge, was shown how to operate the fire alarm panel but was not told anything about the fire procedure at her induction¹⁴³⁴.

The issue raised with the Care Commission

49. In a self-evaluation returned to the Care Commission dated 15 January 2004, Ms Meaney included, under the heading “Areas for Development/Improvement”, “Continual fire safety training for staff”¹⁴³⁵. Ms Meaney explained that she hoped to enlist the assistance of the Care Commission inspectors to have a discussion about the matter, with a view to securing additional fire safety training¹⁴³⁶. Because Ms Meaney had been concerned about fire safety and had raised the matter with Thomas Balmer. He indicated to her that the building was state of the art and safe. It was because of this concern that she raised continual fire safety training for staff under the heading “Areas of Development/Improvement” in the self evaluation form returned to the Care Commission dated 15 January 2004. Unfortunately the fire occurred before that inspection took place.

Fire Drills

Dates of fire drills

50. Fire drills took place on the following dates:

50.1. 29 January 2001;

50.2. 30 November 2001;

¹⁴³³ Alexis Coster, 24 November 2009, am, pp. 81-82, 85-86.

¹⁴³⁴ Catherine Melia, 11 February 2010, pm, pp. 67-68, 70-79, 81.

¹⁴³⁵ Pro 259, p. 253.

¹⁴³⁶ Sadie Meaney, 22 February 2010, pm, pp. 71-76, 23 February 2010, am, pp. 54-59.

- 50.3. 16 August 2002;
- 50.4. 3 February 2003; and
- 50.5. 21 January 2004¹⁴³⁷.

51. This is a complete list of the fire drills which were undertaken during the time when Ms Meaney was Matron.

51.1. These are all the drills during that period recorded in Production 27, the Fire Register.

51.2. Mr Clark stated that Mr Balmer had told him to record fire drills in Production 27¹⁴³⁸.

51.3. Ms Meaney only recalled three drills during her time as Matron, although she accepted under reference to Production 27 (which disclosed five) that there may in fact have been five with two of them being taken by another nurse when she was not there¹⁴³⁹. Mr Balmer accepted that statement¹⁴⁴⁰.

52. Mr Balmer expected that Matron would keep information on fire drills in a different form in her office as part of her training records. He said that participants in drills would sign a sheet and that Matron “would take control of them and log them or lodge them wherever she did so”¹⁴⁴¹. However:-

52.1. Just such a sheet was lodged in Production 27 in respect of the drill on 16 August 2002, while in Production 27, participants in the drill on 3 February 2003 had signed another page. Ms Meaney confirmed that there was no other record (apart from Production 27) where she would expect to find documents showing staff who had participated in evacuations¹⁴⁴².

¹⁴³⁷ Thomas Balmer, 29 April 2010, am, pp. 83-86.

¹⁴³⁸ Joseph Clark, 20 January 2010, pm, p. 92

¹⁴³⁹ Sadie Meaney, 18 February 2010, pm, pp. 5-16.

¹⁴⁴⁰ Thomas Balmer, 4 May 2010, pm, p. 34.

¹⁴⁴¹ Thomas Balmer, 4 May 2010, pm, pp. 20, 23-26, 31-32; 5 May 2010, am, pp. 113-117.

¹⁴⁴² Sadie Meaney, 22 February 2010, pm, pp. 18-19, 39-40.

52.2. Mr Balmer was not actually aware of any other document in which such records (which, as registered person, he had, a statutory duty to keep) would be kept¹⁴⁴³.

53. Mr Balmer took the view that , in addition to fire drills, there were false or unwanted alarms, which had the effect, in his view, of an unannounced drill¹⁴⁴⁴.

Content of fire drills

54. Joe Clark would activate a fire alarm in a particular room, and staff would gather at the panel. Two staff would be dispatched to the area, to identify the location of the fire. This might be indicated by a cleaner's cone. One of them would report back and other members of staff would be dispatched to the area. Meantime the other member of staff would check the zone to see if there were any residents in it. If there were residents in their rooms, they would probably be brought up. But normally, at the time when drills were carried out, residents would be in the lounge at that time. Sometimes, but not always, members of staff might role-play as residents to be evacuated¹⁴⁴⁵.

55. Following the drill, there would be a discussion at the fire panel to discuss any concerns. According to Mr Balmer, the discussion would be led by Mr Clark¹⁴⁴⁶. Ms Meaney stated that there would just be a discussion amongst the nurses and that Mr Clark would not be present¹⁴⁴⁷. AS Mr Clark was in effect leading the drill, I find it improbable that he did not take part in any discussions which followed.

¹⁴⁴³ Thomas Balmer, 29 April 2010, am, pp. 80-83.

¹⁴⁴⁴ Thomas Balmer, 4 May 2010, pm, pp. 34-35.

¹⁴⁴⁵ Joseph Clark, 20 January 2010, pm, pp. 73-75, 21 January 2010, am, pp. 47-49, 59-60; Sadie Meaney, 18 February 2010, pm, pp. 4-6 Thomas Balmer, 5 May 2010, pm, pp. 34-36

¹⁴⁴⁶ Thomas Balmer, 5 May 2010, pm, pp. 31-32, 36-37.

¹⁴⁴⁷ Sadie Meaney, 18 February 2010, pm, pp. 27-28.

Fire drill 16 August 2002

56. The drill on 16 August 2002 (which was attended by Mr and Mrs Balmer and by Ms Meaney) probably took place at around 2 pm¹⁴⁴⁸. This was organized by Mr Balmer. He told Ms Meaney to observe what the staff did¹⁴⁴⁹.

Mr Reid's recommendation

57. Mr Reid identified a deficiency in the frequency of fire drills. His report, Production 216, recommended that "Fire drills should be carried out at 6 monthly intervals"¹⁴⁵⁰.

Fire drill 3 February 2003

58. The drill on 3 February 2003 (which was attended by Mr and Mrs Balmer, Ms Meaney, Phyllis West and Joe Clark along with 7 other members of staff) probably took place mid-afternoon. Residents were moved to the sitting room area¹⁴⁵¹.

The fire drill in January 2004

59. A fire drill was undertaken on 21 January 2004. Mr and Mrs Balmer were on holiday and Matron thought she had better do one¹⁴⁵². Rosepark was to be inspected by the Care Commission the following month.

60. When the fire alarm sounded Sadie Meaney took charge¹⁴⁵³. Patricia Taylor took a roll call of staff, and Allison Cumming a roll call of residents¹⁴⁵⁴. Mhairi Sadiq and Margaret McCondichie were sent to "the ground floor". When Mhairi Sadiq got

¹⁴⁴⁸ Thomas Balmer, 29 April 2010, am, p. 87.

¹⁴⁴⁹ Sadie Meaney, 19 February 2010, pm, pp. 27-28.

¹⁴⁵⁰ Thomas Balmer, 5 May 2010, pm, pp. 22-26.

¹⁴⁵¹ Phyllis West, 23 November 2009, am, pp. 108-115; Sadie Meaney, 18 February 2010, pm, p. 13; Thomas Balmer, 29 April 2010, am, p. 86.

¹⁴⁵² Sadie Meaney, 18 February 2010, pm, p. 8.

¹⁴⁵³ Mhairi Sadiq 29 July 2010, pm, p. 41.

¹⁴⁵⁴ Patricia Taylor, 25 November 2009, am, p. 115.

to the stairs she nearly went down the stairs to the lower floor. Margaret McCondichie tugged her and said it was the ground floor¹⁴⁵⁵. Mhairi Sadiq explained¹⁴⁵⁶:-

“I just got mixed up ... because I, because I though I was going to the ground, I thought ground was down, and the address of the home is New Edinburgh Road and that’s sort of this main road that you would see here ... I just, I just got mixed up.”

Only one resident was in his room; the remainder were in the day room at the time¹⁴⁵⁷. Following the drill, Mhairi Sadiq told Ms Meaney that she had got mixed up between the lower ground and the ground floor. Ms Meaney told her that they were getting a new fire panel anyway¹⁴⁵⁸.

Coverage of drills

61. During the time that Ms Meaney was Matron, not all the staff of the Home were exposed to a fire drill¹⁴⁵⁹. No fire drill was ever carried out on the nightshift¹⁴⁶⁰.

62. The following nightshift staff had never participated in a drill:

Isobel Queen¹⁴⁶¹

Eleanor Ward¹⁴⁶²

Catherine Melia¹⁴⁶³

Flora Davidson¹⁴⁶⁴

Rosemary Buckley¹⁴⁶⁵

Margaret Holmes¹⁴⁶⁶

Brian Norton (bank)¹⁴⁶⁷

Irene Richmond¹⁴⁶⁸

Yvonne Carlyle¹⁴⁶⁹

¹⁴⁵⁵ Mhairi Sadiq, 29 July 2010, pm, pp. 41-42.

¹⁴⁵⁶ Mhairi Sadiq, 29 July 2010, pm, p. 42

¹⁴⁵⁷ Patricia Taylor, 25 November 2009, am, p. 115.

¹⁴⁵⁸ Mhairi Sadiq, 29 July 2010, pm, pp. 42-44, 46-50.

¹⁴⁵⁹ Sadie Meaney, 18 February 2010, pm, p. 18.

¹⁴⁶⁰ Sadie Meaney, 18 February 2010, pm, p. 18.

¹⁴⁶¹ Isobel Queen, 2 December 2009, am, p. 63.

¹⁴⁶² Eleanor Ward, 24 November 2009, pm, p. 22

¹⁴⁶³ Catherine Melia, 11 February 2010, pm, p. 80.

¹⁴⁶⁴ Flora Davidson, 12 February 2010, am, p.. 44-45.

¹⁴⁶⁵ Rosemary Buckley, 25 November 2009, pm, p. 60

¹⁴⁶⁶ Margaret Holmes, 12 February 2010, am, p. 127.

¹⁴⁶⁷ Brian Norton, 26 November 2009, am, p. 42.

¹⁴⁶⁸ Irene Richmond, 27 November 2009, pm, p. 89.

Fire safety training of staff who were on duty on the night of 30-31 January 2004

Isobel Queen

63. Isobel Queen received an induction from Patricia Taylor¹⁴⁷⁰. Her evidence to the inquiry was that during the induction the fire panel was simply identified to her as they walked past it, although she had told the police that she had been shown the operation of the alarm and knew how to operate it¹⁴⁷¹. She watched the video in the day room on her own. She was given the questionnaire to fill in while she was watching the video and did so. She did not recall any discussion with anyone following the video¹⁴⁷².

64. Ms Queen's evidence was that she had never been told what the Home's policy was in relation to what should happen if the fire alarm sounded¹⁴⁷³. However, it seems likely that she had learned something of the procedure, perhaps from speaking to other staff¹⁴⁷⁴.

64.1. When asked what she would have done, she recounted the basics of the fire procedure followed at the Home (with the exception that she stated that she herself would go and investigate the area)¹⁴⁷⁵.

64.2. In response to Question 10 of the Questionnaire¹⁴⁷⁶, Isobel Queen had apparently marked (D), scribbled it out, and inserted (B). She could not herself remember how that had come about¹⁴⁷⁷. A plausible explanation for the change to her answer to Question 10 was that she was given her induction by Patricia Taylor, who had been at the Home for many years and was familiar with the

¹⁴⁶⁹ Yvonne Carlyle, 27 November pm, p. 24

¹⁴⁷⁰ Sadie Meaney, 23 February 2010, am, pp. 98-99.

¹⁴⁷¹ Isobel Queen, 2 December 2009, am, pp. 34-40.

¹⁴⁷² Isobel Queen, 2 December 2009, am pp. 30-31

¹⁴⁷³ Isobel Queen, 2 December 2009, am, p. 25, 3 December 2009, am, pp. 21-24.

¹⁴⁷⁴ Isobel Queen, 3 December 2009, am, pp. 24-25.

¹⁴⁷⁵ Isobel Queen, 2 December 2009, am, pp. 25-26.

¹⁴⁷⁶ Pro 243, p. 35.

¹⁴⁷⁷ Isobel Queen, 2 December 2009, am, pp. 56-58.

procedure which applied there¹⁴⁷⁸, and that Ms Queen was in fact told in the context of answering the questionnaire that the procedure at Rosepark involved checking first before phoning the fire service.

65. Ms Queen had answered Questions 13 and 17 on the questionnaire wrongly¹⁴⁷⁹. However, she had correctly answered Question 9¹⁴⁸⁰:

“You open the linen cupboard and find a small fire in some of the bed linen placed in the cupboard earlier that day. The first thing to do is: (A) close the door and raise the alarm ...”.

66. Apart from her induction, she had no other fire safety training at Rosepark. She did not watch the video again. She had never taken part in a fire drill at Rosepark. She had never been given any training or instruction by matron or management at Rosepark about evacuation of residents in the event of a fire¹⁴⁸¹.

Brian Norton

67. Brian Norton was a bank nurse. At his interview before he started at Rosepark he was not asked about his fire safety training. He was taken round the Home and shown the fire exits, extinguishers, break glass points and fire alarm panel. He was given a general description of the panel. He was not told anything about the procedure which was to be followed if the fire alarm sounded¹⁴⁸². At that time he was an enrolled nurse. He subsequently upgraded his qualification, but received no further training in fire safety. He never took part in any drills at Rosepark¹⁴⁸³.

Irene Richmond

68. Irene Richmond had watched the fire safety video as part of the group on 18 November 1999¹⁴⁸⁴. In response to Question 10 of the Questionnaire¹⁴⁸⁵, she had apparently marked (D), scribbled it out and inserted (B). She had answered Question

¹⁴⁷⁸ Sadie Meaney, 23 February 2010, am, pp. 100-102.

¹⁴⁷⁹ Sadie Meaney, 23 February 2010, am, pp. 103-105; Colin Todd, 28 July 2010, am, pp. 46-47.

¹⁴⁸⁰ Isobel Queen, 2 December 2009, am, p. 55.

¹⁴⁸¹ Isobel Queen, 2 December 2009, am, p. 63.

¹⁴⁸² Brian Norton, 26 November 2009, am, pp. 39-41.

¹⁴⁸³ Brian Norton, 26 November 2009, am, p. 42.

¹⁴⁸⁴ 27 November 2009, pm, p. 78.

¹⁴⁸⁵ Pro 316, p. 45.

16 (which was concerned with the appropriate fire extinguisher for use on an electrical fire) wrongly¹⁴⁸⁶.

69. She had never participated in a fire drill at Rosepark¹⁴⁸⁷.

Yvonne Carlyle

70. At some point after she started work, Yvonne Carlyle, had been shown around the building, including the fire exits¹⁴⁸⁸. She had been shown the training video and had completed the questionnaire¹⁴⁸⁹. She watched it on her own in the dayroom. Matron came in, put the video on, gave her the questionnaire and left her to it. She watched the video and then filled in the questionnaire. She left the questionnaire on matron's desk. No-one spoke to her about it afterwards¹⁴⁹⁰.

71. Yvonne Carlyle had never been told the policy for fire procedure at Rosepark¹⁴⁹¹. She understood that, as a carer, she was under instruction from the nurse on duty¹⁴⁹². Her expectation was that if the fire alarm sounded the nurse on duty would check the home for any visible signs of fire. If there were visible signs of fire, she would have expected the nurse to phone the fire brigade. If she could not find visible signs of fire, she would reset the alarm¹⁴⁹³.

72. At some point she had been told: (a) that if the fire alarm activated she should go to the panel and follow the instructions of the nurse in charge: (b) that if the fire alarm activated you would check the zone and if there was no fire you should phone Mr Balmer or Joe Clark and (c) that the front car park was the place of safety. She may have been told this by the night sister¹⁴⁹⁴.

¹⁴⁸⁶ Colin Todd, 28 July 2010, am, pp. 47-49.

¹⁴⁸⁷ Irene Richmond, 27 November 2009, p. 89.

¹⁴⁸⁸ Yvonne Carlyle, 27 November 2009, pm, pp. 12-13

¹⁴⁸⁹ Yvonne Carlyle, 27 November 2009, pm, pp. 13-14.

¹⁴⁹⁰ Yvonne Carlyle, 27 November 2009, pm, pp. 13-15, 22-24.

¹⁴⁹¹ Yvonne Carlyle, 27 November 2009, am, p. 24.

¹⁴⁹² Yvonne Carlyle, 27 November 2009, am, p. 25.

¹⁴⁹³ Yvonne Carlyle, 27 November 2009, am, p. 26.

¹⁴⁹⁴ Yvonne Carlyle, 27 November 2009, pm, pp. 16-22.

73. She had never participated in a fire drill since she started working at Rosepark¹⁴⁹⁵.

74. She had received no training in evacuation techniques¹⁴⁹⁶.

The questionnaires

75. Mr Todd had undertaken an analysis of 48 questionnaires in employment records taken from Rosepark¹⁴⁹⁷.

75.1. Question 10 – 34 had had given Answer D without this being changed; 6 had given Answer B without this being changed; 3 had given Answer D but this had been crossed out and changed to B; 2 had ticked both B and D; and 2 had originally answered A but this had been corrected to D.

75.2. Question 15 – 45 employees had answered this correctly; 3 had not answered the question.

75.3. Question 16 – 15 employees had originally answered this incorrectly; one had not answered the question; in only two cases had the incorrect answer been corrected on the face of the questionnaire.

75.4. Question 17 – 3 employees had originally answered this incorrectly; one employee did not answer the question; in two of the three cases, the incorrect answer had been corrected on the face of the questionnaire.

75.5. Question 18 – 3 employees had originally answered the question incorrectly; two employees did not answer the question; all of the incorrect answers appeared to have been corrected on the face of the questionnaire.

¹⁴⁹⁵ Yvonne Carlyle, 27 November 2009, pm, p. 25.

¹⁴⁹⁶ Yvonne Carlyle, 27 November 2009, pm, p. 25

¹⁴⁹⁷ Colin Todd, 28 July 2010, am, pp. 51-55

75.6. Question 19 – 6 employees had originally answered the question incorrectly; one employee ticked two answers; two employees did not answer the question; of the six incorrect answers only three had been corrected on the face of the questionnaire.

75.7. Question 20 – Two employees (including Matron) had originally answered this question incorrectly; one employee did not answer the question; only one of the incorrect answers had been corrected on the face of the questionnaire.

Record-keeping

76. A record of training was kept on each individual staff member's file¹⁴⁹⁸. This was kept because the Health Board and the Care Commission asked what staff training had been done¹⁴⁹⁹. The record of staff training for a member of staff who had arrived after the introduction of the video in 1999 would contain only one entry relating to fire training – namely a reference to his or her induction. That would also be true of some – though not all – staff who had been employed before 1999¹⁵⁰⁰.

77. It would have been apparent from an examination of the individual employment training records that staff were not receiving at least one programme of fire safety training annually¹⁵⁰¹. Had Ms Meaney been asked what fire safety training was provided, she would have told the inquirer what the practice was at Rosepark¹⁵⁰².

¹⁴⁹⁸ Sadie Meaney, 18 February 2010, am, pp. 140-142

¹⁴⁹⁹ Sadie Meaney, 18 February 2010, am, p. 141-142

¹⁵⁰⁰ Sadie Meaney, 19 February 2010, pm, pp. 3-5.

¹⁵⁰¹ Sadie Meaney, 22 February 2010, pm, pp. 13-14

¹⁵⁰² Sadie Meaney, 22 February 2010, pm, pp. 14-15.

Note to Chapter 20

On behalf of the Balmer Partnership it was accepted that as a matter of fact there were insufficient fire drills carried out at the Home especially in relation to the nightshift. It was pointed out that Thomas Balmer recognised in his evidence that, with the main focus of the Home being in the care of individuals and their comfort and medical care, they had “taken their eye off the ball” in relation to the issue of what would happen in the event of a fire as no-one seriously thought it was a real possibility. It is concluded on his behalf “Whatever the criticisms may be of others, Mr Balmer does not attempt to evade any responsibility for any shortcomings that may have been exposed by the Inquiry”.

On behalf of the Care Commission it was noted that the content of fire drills would routinely have formed the subject of enquiry by a Care Commission inspector for the period prior to the fire.

As far as the submissions on behalf of Matron are concerned I refer to the matters which I have set out in Chapter 18 dealing with fire safety responsibilities.

CHAPTER 21: EVACUATION AND ITS DIFFICULTIES

Evacuation: the policy of the Home

1. The policy of the Home in respect of evacuation was horizontal evacuation – i.e. to move residents to another area away from the seat of any incident to the next zone; and then staff would come and help to take them up to an assembly point or to the main dining room or sitting room¹⁵⁰³. This was outlined in the fire notice production 334H in the following terms:

“Evacuate residents immediately involved near the fire area and continue to evacuate others systematically and calmly”

2. This was consistent with Question 11 on the questionnaire:

“The fire alarm has sounded and you’ve been instructed to evacuate the affected zone. What should you do first?”

The correct answer was (B) “Move people away from the affected zone to the next zone”¹⁵⁰⁴.

3. Ms Meaney put it this way¹⁵⁰⁵:

“... you move them from the zone that was in danger to a safety zone, that would be the zone next to it, and then wait there for help, to get extra help to come. Evacuate all the rooms, if there were people in them, to the safety zone and then more help would come to take them up, away from the fire.”

4. So, in the event of a fire in corridor 4, residents would be evacuated, in the first instance, to the landing at the top of the south-west stairwell or into corridor 3¹⁵⁰⁶.

Evacuation: practical challenges

5. There were very obvious difficulties in implementing a progressive horizontal evacuation policy for the residents from corridor 4 particularly on nightshift.

¹⁵⁰³ Sadie Meaney, 19 February 2010, am, pp. 89-90; Thomas Balmer, 4 May 2010, am, pp. 35-39.

¹⁵⁰⁴ Sadie Meaney, 18 February 2010, pm, p. 19.

¹⁵⁰⁵ Sadie Meaney, 18 February 2010, pm, p. 19; 19 February 2010, am, pp. 89-90.

¹⁵⁰⁶ Phyllis West, 23 November 2009, pm, pp. 60-64; Sadie Meaney, 19 February 2010, am, pp. 90-91

- 5.1. There would be up to 14 residents there, all of them requiring a degree of assistance, and some considerable assistance.
- 5.2. If it was not possible to evacuate them through the corridor 3/4 fire door, it would be necessary to take them down the south-west stairwell.
- 5.3. It would not have been possible for all the residents from corridor 4 to congregate on the landing at the top of the south-west stairwell¹⁵⁰⁷. Given the limitations of space on the landing of the south-west stairwell, it would be necessary to start taking residents downstairs during the evacuation process.
- 5.4. None of the residents in corridors 3 and 4 would have been safe to use the stairs at the south west corner of the building on his or her own. Some of them would require to be lifted or bumped down the stairs on a mattress or duvet¹⁵⁰⁸.
- 5.5. If staff were required to lift or pull residents as part of the evacuation process, they would find it progressively harder work as they became tired¹⁵⁰⁹.
- 5.6. The procedure envisaged that, if a fire was found and one of the two staff who had been sent to investigate came back to report this, one member of staff would phone the fire brigade and start phoning the emergency contacts. Another member of staff was meant to wait by the front door for the Fire Brigade. The third would return to the area to help. The member of staff who had made the phone calls would go as well as soon as she had made the phone calls. Until the Fire Brigade arrived there would be a maximum of three staff undertaking evacuation¹⁵¹⁰.
6. Janette Midda carried out an exercise with a view to estimating the time which it would have taken to evacuate the residents in Corridors 3 and 4, in the event of a fire

¹⁵⁰⁷ Yvonne Carlyle, 27 November 2009, am, p. 9; Sadie Meaney, 22 February 2010, am, pp. 31-32.

¹⁵⁰⁸ Allison Cumming, 19 November 2009, pm, pp. 14-15; Sadie Meaney, 19 February 2010, am, pp. 92-93; 22 February 2010, am, pp. 30-37.

¹⁵⁰⁹ Sadie Meaney, 22 February 2010, am, pp. 38-39.

¹⁵¹⁰ Sadie Meaney, 22 February 2010, am, pp. 42-4

in cupboard A2¹⁵¹¹. She estimated this at 22.5 to 37 minutes. These timings were estimated on the following basis:

6.1. That the residents of rooms 16 and 17 would be moved into corridor 3 and, with the residents of corridor 3, would then be moved out of corridor 3 towards the entrance; while the residents of rooms 9 to 15 were moved to the south-west stairwell. She estimated the time to take the 10 residents from rooms 9 to 15 to the south-west stairwell as between 13 and 21 minutes depending on staff competency and fitness; and the timings to move residents from rooms 16 and 17 into corridor 3 and then the residents of corridor 3 into corridor 2 at 9.5 – 16 minutes depending on staff competency and fitness.

6.2. She identified, by carrying out practical exercises, times for two members of staff to move a resident from a bed onto an evacuation mattress and to the door of the room, approximately 3 metres. These varied from 52 seconds to 85 seconds, with the time increasing with the number of attempts due to fatigue. The timings would depend on the fitness of the members of staff involved.

6.3. She identified, by practical exercises, times for two members of staff to move a resident from a bed onto an evacuation mattress and to move the resident 15 metres across a vinyl floor. The times varied from 110 seconds to 175 seconds, depending on experience and fatigue. The timings varied quite considerably depending on staff fitness and confidence, from 3.8 to 6 seconds per metre.

6.4. She applied these timings to the distances between each room at Rosepark and the relevant safe area to identify a time to evacuate the resident(s) of that room. So, for example, she estimated that evacuating a resident from room 9 to the south west stairwell would take between 100 and 157 seconds, while to evacuate a resident from room 13 to the same area would take between 56 and 91 seconds.

¹⁵¹¹ Janette Midda, 17 June 2010, am, pp. 8-49

6.5. She obtained the totals simply by adding together the timings for each individual resident.

7. Ms Midda recognized that there were differences between her exercise and the real situation, some of which would tend to decrease and others of which would tend to increase the timings¹⁵¹².

7.1. In a Care Home, with carpeted floors, it would be more difficult to drag the resident across the floor than on the vinyl floor where she carried out her exercises.

7.2. The exercise involved the use of an evacuation mattress, specifically designed for evacuation. In the absence of such a piece of equipment, it would be necessary to use a blanket or sheet, which would be more uncomfortable for the residents and would present a risk of injury.

7.3. In the real situation, rather than simply adding the timings for each resident together, it would be necessary to factor in staff returning from the place of safety.

7.4. In the real situation, a third member of staff might be able to assist more mobile residents to the safe area while two others were using an evacuation mattress. Mr Todd also observed that, in a real situation, the fourth member of staff would also be available to assist for at least part of the time and, indeed, a time would come when the Fire Service would also be able to assist¹⁵¹³.

7.5. Another possibility would be the use of a wheelchair if there was a wheelchair available, which would be quicker than using an evacuation mattress¹⁵¹⁴.

¹⁵¹² Janette Midda, 17 June 2010, am, pp. 8-49.

¹⁵¹³ Colin Todd, 27 July 2010, am, pp. 94-100.

¹⁵¹⁴ Sadie Meaney, 22 February 2010, am, p. 24.

7.6. On the other hand, the requirement to start taking residents downstairs as part of the evacuation through the south-west stairwell would tend to increase the timings and one would also want to have a member of staff at the bottom of the stairs caring for residents there.

8. Notwithstanding its limitations, Ms Midda's exercise is useful in providing a general feel for the difficulties would have been involved in evacuating the residents of this part of Rosepark¹⁵¹⁵. It is broadly consistent with a rule of thumb figure of about 2 ½ minutes per resident for two members of staff spoken to by Mr Shipp¹⁵¹⁶.

9. Most fires in Care Homes do not develop into major fires. However – as the speed of development of the fire at Rosepark illustrates - in the event of a fire developing beyond the point at which first aid fire fighting is possible, the speed of fire development might well be such as to make it impossible to evacuate residents¹⁵¹⁷.

Failure of management at Rosepark to address these issues

10. The management of Rosepark had not addressed these issues.

10.1. Thomas Balmer accepted that in the context of fire safety in a care home, the key consideration is the presence of vulnerable and dependent residents, and that in order to address that issue one would need to think through how and within what timescales residents could reasonably be evacuated from one area to another¹⁵¹⁸. However he had no understanding of the timescales that would be involved in moving 14 residents from corridor 4 into another compartment¹⁵¹⁹. He had given no thought to the question of evacuation under specific reference to the possibility of a fire taking place at night¹⁵²⁰.

¹⁵¹⁵ Colin Todd, 27 July 2010, am, p. 100

¹⁵¹⁶ Martin Shipp, 15 April 2010, pm, pp. 28-29.

¹⁵¹⁷ Martin Shipp, 15 April 2010, pm, pp. 26-27.

¹⁵¹⁸ Thomas Balmer, 7 May 2010, am, p. 76

¹⁵¹⁹ Thomas Balmer, 4 May 2010, am, pp. 39-40; 7 May 2010, am, pp. 84-88.

¹⁵²⁰ Thomas Balmer, 4 May 2010, am, pp. 42-43.

10.2. The potential significance of the ratio of residents to staff had however been drawn to his attention by Mr McNeilly in the course of a discussion in connection with the second extension to Croftbank on 21 February 2001. Mr Balmer and Mr Dickie met with Mr McNeilly in connection with this extension, on 21 February 2001. Mr McNeilly's note of the points discussed includes reference to staff ratios in relation to rooms within zones¹⁵²¹. Mr Balmer recalled a discussion about staff ratios in relation to rooms within zones, and understood that this was concerned with having adequate staff to effect horizontal evacuation from one area to another. He could not remember the detail of the numbers being discussed, although he recalled that it did not have a consequence for that particular extension¹⁵²². At that time Mr McNeilly was working to SHTM 84, which provided that with 4 staff there should not be more than 9 beds in any one subcompartment¹⁵²³. Mr Balmer claimed that this particular ratio was never drawn to his attention before the fire¹⁵²⁴. In any event, no change was made to the numbers of residents in corridor 4 at Rosepark.

10.3. Ms Meaney described a fire as "everybody's nightmare if you work in a nursing home"¹⁵²⁵. She recognized that if there were ever a fire, it would be difficult to get the residents in corridor 4 out because of their frailty¹⁵²⁶. She also recognized that there would be difficulties involved in getting residents from that corridor down the south-west stair¹⁵²⁷. She said "I would dread having a fire ... because ... with the poor mobility of the residents we had it would have been very difficult"¹⁵²⁸. However, she had never discussed this with anyone. Mr Balmer always told her that the Home was very safe, "state of the art" and that there was very little fear of having a fire there, making reference in that regard to the stairwell¹⁵²⁹.

¹⁵²¹ Pro 1115, p. 6; Thomas Balmer, 29 April 2010, pm, pp. 25.

¹⁵²² Thomas Balmer, 29 April 2010, pm, pp. 23-24.

¹⁵²³ Thomas McNeilly, 25 January 2010, am, p. 117.

¹⁵²⁴ Thomas Balmer, 4 May 2010, am, p. 33.

¹⁵²⁵ Sadie Meaney, 19 February 2010, am, p. 95.

¹⁵²⁶ Sadie Meaney, 19 February 2010, am, p. 94.

¹⁵²⁷ Sadie Meaney, 19 February 2010, am, pp. 92-93.

¹⁵²⁸ Sadie Meaney, 19 February 2010, pm, pp. 6-7.

¹⁵²⁹ Sadie Meaney, 19 February 2010, pm, pp. 7-9, 11, 22 February 2010, am, pp. 1-3.

Note to Chapter 21

It is submitted on behalf of the Balmer Partnership that, while there was criticism of the alleged failure of management to address the issue of evacuation and its difficulties, the fact of the matter was that it would have made no practical difference to the events of the evening. I do not agree. The difficulties of evacuation must have been obvious to the Balmer Partnership. This would have been particularly so if a suitable and sufficient risk assessment had been carried out. It would then have been recognised that 14 residents in corridor 4 was too many. This should reasonably have led to sub-division of the corridor or fewer residents in the corridor, movement of highly depended residents to other locations, the installation of a sprinkler system or additional staff on duty at night. I deal with these issues in Chapter 44(3)(e).

No other responses call for comment.

CHAPTER 22: THE MILLENNIUM BUG AND THE FIREMEN'S STRIKE

The "Millennium Bug"

1. In advance of the millennium, Strathclyde Fire Service wrote to Rosepark in connection with anxieties about the potential impact of the millennium on computer systems. The letter stated¹⁵³⁰:-

"In common with many other agencies and industries Strathclyde Fire Brigade is aiming for business as normal throughout the Millennium Year 2000 changeover. In order to achieve this we require the assistance of our clients, particularly in industry and commerce. As you are aware the Brigade requires information to pre-plan for possible fire incidents or other emergencies which may require our attendance. To ensure the information we hold is accurate and up to date could you please complete the attached pro-forma and return it to the office indicated. This may also be a good time to review your emergency procedures and building safety systems. Many safety systems include devices that measure time and dates. Many may not accept year 2000 dates."

2. The pro-forma asked "Have you reviewed your emergency plan?" and this question was answered "Yes"¹⁵³¹.

3. According to Mr Balmer, Rosepark's emergency procedures were reviewed at this time¹⁵³². Ms Meaney did recall Mr Balmer going over it with them, but could not remember the details¹⁵³³. Whatever was done, the procedure to be followed in the event of a fire alarm sounding was not changed.

The Firemen's Strike

4. In October 2002 the Care Commission sent both Matron and Mr Balmer a copy of a letter from the Scottish Executive providing briefing in relation to the possibility of industrial action by the Fire Brigade Union¹⁵³⁴. The briefing warned that, while military personnel would provide basic fire cover, this would not be at the same level as normal provision. It advised: "As there will be a markedly reduced level of fire

¹⁵³⁰ Pro 213, p. 21; Thomas Balmer, 5 May 2010, pm, pp. 37-38.

¹⁵³¹ Thomas Balmer, 5 May 2010, pm, pp. 39-40.

¹⁵³² Thomas Balmer, 5 May 2010, pm, pp. 40-45.

¹⁵³³ Sarah Meaney, 19 February 2010, pm, pp. 91-92.

¹⁵³⁴ Pro 530, p. 5; Sarah Meaney, 18 February 2010, pm, pp. 43-45

cover in the event of industrial action, it is prudent to review both fire prevention and evacuation arrangements”. Inter alia the advice stated:-

“On this basis you are urged to take preparatory action in the following key areas in order to minimize impact in the event of an incident. ...

- Check the effectiveness of the existing fire precautions
- Confirm that all staff are fully aware of fire and evacuation procedures
- Take appropriate steps to enhance staff vigilance
- Review arrangements for calling the emergency services in the event of fire
- Consider the need for additional staff or patrols

In premises regarded as presenting a high risk to life, management should consider the need for additional staffing levels or patrols in order to enhance as necessary existing arrangements for fire prevention, the early detection of fires, evacuation of the occupants, and first aid fire fighting particularly outside of normal working hours”¹⁵³⁵.

5. Mr Balmer took the letter to Matron. He showed her a document headed “Fire Policy”, page 6 of production 311, which she had never seen before, which stated that she was responsible for implementing fire policy, and asked her to draw up a contingency plan. The Matrons of the two Homes worked together on this¹⁵³⁶. Once the plan had been drawn up by the two Matrons, Alan Balmer appears to have played, effectively, a secretarial role in printing out the plans for the two homes¹⁵³⁷.

6. Productions 334H and 334I, the two notices which were on the wall next to the fire alarm panel, were the product of this exercise¹⁵³⁸. It is a reasonable inference from a comparison between these notices and the similar (but different) documents in the Policy Manual, that they were modified versions of earlier documents in the form contained in the Policy Manual¹⁵³⁹. The principal difference was the identification of a list of people who would come in to assist if there was a fire in the night¹⁵⁴⁰. Although there were limited differences from the earlier documents, the aim was to emphasise that staff should be more aware and more vigilant¹⁵⁴¹.

¹⁵³⁵ Pro 530, p. 7; Sarah Meaney, 18 February 2010, pm, pp. 54-63; Thomas Balmer, 5 May 2010, pm, pp. 54-57.

¹⁵³⁶ Sarah Meaney, 18 February 2010, pm, pp. 44-46, 19 February 2010, pm, pp. 40-42; cp Thomas Balmer, 5 May 2010, pm, pp. 47-54.

¹⁵³⁷ Alan Balmer, 3 June 2010, am, pp. 27-28.

¹⁵³⁸ Sarah Meaney, 19 February 2010, pm, pp. 38-40.

¹⁵³⁹ Sarah Meaney, 19 February 2010, pm, pp. 42-50, 55-56

¹⁵⁴⁰ Sarah Meaney, 19 February 2010, pm, pp. 42-50, 52-53

¹⁵⁴¹ Sarah Meaney, 19 February 2010; 22 February 2010, am, pp. 11-20.

7. Matron showed the plan to Thomas Balmer and he told her to arrange a meeting for the staff¹⁵⁴². At the meeting, Joe Clark took the staff through the “Checklist for Evacuation” step by step¹⁵⁴³. Ms Meaney proposed that there should be a list of names of people who would be willing to come in and assist if a fire broke out¹⁵⁴⁴. Eleanor Ward and Irene Richmond expressed disquiet that staff were being asked to attend and go into a potentially burning building¹⁵⁴⁵. A copy of the plan was posted on the wall along with a list of names of those who had volunteered to come in and assist if there was a fire in the night, and a sign-up sheet for staff who had not been at the meeting¹⁵⁴⁶.

8. The management essentially took a “hands off” approach to this issue, leaving it to the two Matrons to address the matter¹⁵⁴⁷. Mr Balmer stated that he sat in on the meeting but would not volunteer any input because the Matrons were in control¹⁵⁴⁸. His presence was not recalled by Eleanor Ward¹⁵⁴⁹.

Note to Chapter 22

This was the only occasion when Sarah Meaney had any input into fire safety policy.

¹⁵⁴² Sarah Meaney, 18 February 2010, pm, pp. 44-46;

¹⁵⁴³ Joseph Clark, 21 January 2010, pm, pp. 3-4; Sarah Meaney, 19 February 2010, pm, p. 50.

¹⁵⁴⁴ Sarah Meaney, 18 February 2010, pm, pp. 45-46

¹⁵⁴⁵ Eleanor Ward, 24 November 2009, pm, pp. 38-41; Rosemary Buckley, 25 November 2009, pm, pp. 62-63; Irene Richmond, 27 November 2009, pm, pp. 92-95.

¹⁵⁴⁶ Sarah Meaney, 18 February 2010, pm, pp. 47-53

¹⁵⁴⁷ Anne Balmer, 15 July 2010, am, pp. 134-135.

¹⁵⁴⁸ Thomas Balmer, 5 May 2010, pm, pp. 54, 59.

¹⁵⁴⁹ Eleanor Ward, 24 November 2009, pm, p. 36.

CHAPTER 23: FALSE ALARMS

General

1. Frequent false alarms create an acknowledged problem in relation to fire safety. An organization which is subject to frequent false alarms can become complacent. Staff come to assume that every time the alarm operates it is a false alarm, with the consequence that the response of staff to an alarm comes to lack urgency¹⁵⁵⁰.
2. An organization which experiences frequent false alarms (and Care Homes are recognized to have a problem in that regard) requires to take steps to counter the complacency which can creep in¹⁵⁵¹.
3. BS 5839-I provided that the person responsible for the fire alarm system should ensure that a logbook was kept, in which among other things, false alarms were recorded. Mr Todd explained that, unless an eye is kept on false alarms, they can get out of control. It is necessary to monitor them, lest steps require to be taken to reduce the level of false alarms or to deal with a specific problem causing false alarms¹⁵⁵².

The frequency of false alarms at Rosepark

4. There were frequent false or unwanted alarms.
 - 4.1. Mr Balmer said that there were probably as many as ten or more of these a year¹⁵⁵³.
 - 4.2. Ms Meaney said that she had been present many times when there was a false alarm¹⁵⁵⁴. Her impression was that this would happen sporadically but could be two or three times a month, both on the day and nightshift¹⁵⁵⁵.

¹⁵⁵⁰ Martin Shipp, 15 April 2010, am, p. 144; Colin Todd, 26 July 2010, pm, pp. 59-61.

¹⁵⁵¹ Martin Shipp, 15 April 2010, am, p. 144.

¹⁵⁵² Colin Todd, 26 July 2010, pm, pp. 57-59.

¹⁵⁵³ Thomas Balmer, 4 May 2010, pm, p. 35; also pp. 38-39.

¹⁵⁵⁴ Sarah Meaney, 18 February 2010, am, p. 116-117; 19 February 2010, am, p. 89.

¹⁵⁵⁵ Sarah Meaney, 18 February 2010, am, pp. 118-119.

4.3. Patricia Taylor had experienced false alarms, in circumstances where the alarm was set off by the toaster. A member of staff would run up from the tearoom to tell the staff at the panel that it was the toaster which had set off the alarm¹⁵⁵⁶.

4.4. Phyllis West experienced one false alarm after she had returned from maternity leave in November 2003 and before the fire. This happened at about 3 pm one afternoon. Joe Clark went up into the attic to investigate. Mr Balmer was present¹⁵⁵⁷.

5. The Fire Brigade was never called to any such alarm¹⁵⁵⁸.

6. Mr Balmer gave evidence that, on one occasion when the fire alarm had been activated by the toaster, a staff nurse on nightshift had immediately called out the Fire Brigade “and they were less than pleased”. The staff nurse in question had been less than happy with the way the Fire Brigade had treated her because she felt that she had been doing what was expected of her¹⁵⁵⁹. Mr Balmer could not really remember the context in which it had come to his attention that the staff nurse was less than happy¹⁵⁶⁰. This was something he had been told by someone else. He could not put an approximate date on the incident¹⁵⁶¹. He could not remember which staff nurse was involved.¹⁵⁶² He did not himself receive any communication from the Fire Service about the incident¹⁵⁶³. He had made no record of the incident¹⁵⁶⁴. I thus make the finding which I have done in paragraph 5.

False alarm December 2003

¹⁵⁵⁶ Patricia Taylor, 25 November 2009, am, pp. 117-120.

¹⁵⁵⁷ Phyllis West, 23 November 2009, am, pp. 101-107

¹⁵⁵⁸ Sarah Meaney, 18 February 2010, am, p. 118; Thomas Balmer, 30 April 2010, am, pp. 29-30; 4 May 2010, pm, p. 39

¹⁵⁵⁹ Thomas Balmer, 5 May 2010, am, p. 32.

¹⁵⁶⁰ Thomas Balmer, 5 May 2010, am, p. 32

¹⁵⁶¹ Thomas Balmer, 4 May 2010, pm, p. 39.

¹⁵⁶² Thomas Balmer, 5 May 2010, am, p. 26.

¹⁵⁶³ Thomas Balmer, 5 May 2010, am, pp. 28-29.

¹⁵⁶⁴ Thomas Balmer, 5 May 2010, am, pp. 29-30.

7. There had been an alarm on the nightshift in December 2003¹⁵⁶⁵. The staff on duty were Isobel Queen, Mary Rodgers, Yvonne Carlyle and Collette Wallace¹⁵⁶⁶. Isobel Queen was the nurse in charge¹⁵⁶⁷.

8. When the fire alarm sounded, Isobel Queen and Mary Rodgers went to the panel. So did Yvonne Carlyle. They checked the panel. This indicated that there was a fire in the attic¹⁵⁶⁸. Isobel Queen silenced the alarm¹⁵⁶⁹ and Isobel Queen, Mary Rodgers and Collette Wallace went and checked outside for visible signs and saw none. All four staff checked all round the home. They checked all the rooms and corridors both upstairs and downstairs¹⁵⁷⁰. They looked at the ceilings¹⁵⁷¹. They discussed trying to get access to the attic but they did not know where the ladders were or the key for access to the attic hatch¹⁵⁷². They went downstairs because residents were upset so they had to go downstairs to reassure them¹⁵⁷³. There were no visible signs of fire¹⁵⁷⁴.

9. Isobel Queen telephoned Joe Clark¹⁵⁷⁵. She told him that the fire alarm had gone off and that it was the attic. She asked him what they should do. He told her that if there were no signs of fire and smoke she should reset the alarm¹⁵⁷⁶. Ms Queen then reset the alarm¹⁵⁷⁷. After she reset the alarm nothing happened¹⁵⁷⁸.

10. It would appear from Mr Clark's evidence that this was the second time such an event had occurred in reasonably close succession. On the first occasion, he had been called out at night. The member of staff told him that she had looked around the home and found nothing. He went to the Home and entered the attic. The detector had activated but there was no sign of smoke or fire in that part of the attic or the

¹⁵⁶⁵ Isobel Queen, 2 December 2009, am, p. 41; Yvonne Carlyle, 27 November 2009, am, pp. 26, 32; Sarah Meaney, 23 February 2010, pm, p. 61.

¹⁵⁶⁶ Yvonne Carlyle, 27 November 2009, am, p. 27; Isobel Queen, 2 December 2009, am, p. 41.

¹⁵⁶⁷ Sarah Meaney, 18 February 2010, am, p. 120; cf Isobel Queen, 2 December 2009, am, p. 41.

¹⁵⁶⁸ Yvonne Carlyle, 27 November 2009, am, pp. 26-28; Isobel Queen, 2 December 2009, am, p. 41.

¹⁵⁶⁹ Isobel Queen, 2 December 2009, am, p. 46

¹⁵⁷⁰ Yvonne Carlyle, 27 November 2009, am, pp. 30-32.

¹⁵⁷¹ Isobel Queen, 2 December 2009, am, p. 42.

¹⁵⁷² Isobel Queen, 2 December 2009, am, pp. 43-44

¹⁵⁷³ Yvonne Carlyle, 27 November 2009, am, p. 32.

¹⁵⁷⁴ Yvonne Carlyle, 27 November 2009, am, p. 28; Isobel Queen, 2 December 2009, am, p. 42.

¹⁵⁷⁵ Yvonne Carlyle, 27 November 2009, am, pp. 28-29.

¹⁵⁷⁶ Isobel Queen, 2 December 2009, am, p. 43.

¹⁵⁷⁷ Yvonne Carlyle, 27 November 2009, am, p. 29; cf Isobel Queen, 2 December 2009, am, p. 43.

¹⁵⁷⁸ Yvonne Carlyle, 27 November 2009, am, p. 29.

sections of the attic leading up to it. He did not check the remainder of the attic but went downstairs, reset the panel and waited for a period to see if it activated again. On the second occasion, it was the same situation. Mr Clark told the nurse to reset the alarm and again went over to investigate. It was the same smoke detector which had activated. There were no signs of any problems, so he simply removed the detector head and replaced it for one in the secretary's room¹⁵⁷⁹.

11. No call was made to the fire brigade¹⁵⁸⁰. No record was made of either incident¹⁵⁸¹.

12. These events disclose a number of troubling features:

12.1. In each case, this might have been a fire spreading in the attic. The Fire Service should plainly have been summoned without delay¹⁵⁸². The fact that the nurse in charge called Mr Clark may be taken to indicate uncertainty about the proper procedures.

12.2. Mr Clark's instruction to the staff should have been to call the Fire Service. His instruction to reset the system and see what happened was plainly inappropriate¹⁵⁸³.

12.3. The fact that on the incident recalled by Ms Queen and Ms Carlyle, staff went downstairs although the alarm indicated the attic suggested that they had no confidence that the fire alarm was giving them correct information¹⁵⁸⁴.

12.4. When Mr Clark attended and went into the attic to investigate, he was putting himself at serious risk – going into an area where, so far as the fire alarm disclosed, there was a fire without the Fire Brigade having been summoned.

¹⁵⁷⁹ Joseph Clark, 21 January 2010, am, pp. 100-130, pm, pp. 1-3; cp Sarah Meaney, 18 February 2010, am, pp. 119-120, 23 February 2010, pm, pp. 61-62.

¹⁵⁸⁰ Yvonne Carlyle, 27 November 2009, am, p. 29; Joseph Clark, 21 January 2010, am, p. 104.

¹⁵⁸¹ Joseph Clark, 21 January 2010, am, p. 104

¹⁵⁸² Colin Todd, 26 July 2010, pm, pp. 63-64.

¹⁵⁸³ Colin Todd, 26 July 2010, pm, pp. 64-65

¹⁵⁸⁴ Colin Todd, 26 July 2010, pm, pp. 62-64.

This indicates a lack of confidence that the system was to be relied on¹⁵⁸⁵. It is worth noting that Mr Clark estimated 10-15 minutes as the time from leaving home until he had completely checked the attic space¹⁵⁸⁶.

13. Mr Todd described the scenario as “fairly awful”¹⁵⁸⁷. It illustrates why the guidance in the Fire Safety Video was plainly correct – namely that if the fire alarm sounds on the nightshift, one should not assume it is a false alarm but should phone the Fire Brigade.

14. Thomas Balmer was advised about this incident after the event. He was aware that the alarm indicator related to the attic. He was aware that the Fire Brigade had not been called. He stated that he himself would have advised staff to phone the Fire Brigade in relation to an alarm in the attic because the attic was out of reach. He was concerned that, faced with such a situation, the nurse in charge had not called the Fire Brigade. His evidence was that he voiced his concerns to Matron – though in the context of a general discussion - to the effect that if the staff nurse was unsure or uncertain in such circumstances why did she not call the Fire Brigade¹⁵⁸⁸. This evidence was not put to Matron. For the reasons which I set out in paragraph 15 I am not prepared to accept that evidence.

15. After he had been told about this incident Thomas Balmer did not instruct Matron to speak to the staff member involved. He did not give instructions to change the emergency plan which remained, albeit not in writing, that staff should only dial 999 if they found a fire. This incident illustrated the inadequacies of the emergency procedure which was in place. This was not addressed and no steps were taken by the Balmer Partnership to set out a revised emergency procedure indicating that the Fire Brigade should be phoned whenever the alarm sounded. The false alarm was not recorded. On the basis that Thomas Balmer took no steps to change the procedure, I am not prepared to hold that he did in fact voice his concerns to Matron.

¹⁵⁸⁵ Colin Todd, 26 July 2010, pm, pp. 65-66.

¹⁵⁸⁶ Joseph Clark, 21 January 2010, am, pp. 126-127.

¹⁵⁸⁷ Colin Todd, 26 July 2010, pm, p. 65.

¹⁵⁸⁸ Thomas Balmer, 5 May 2010, pm, pp. 60-73, 6 May 2010, am, pp. 115-117; see also Alan Balmer, 3 June 2010, pm, pp. 33-34.

Recording of false alarms

16. Production 27, the Fire Register, contained two entries relating to false alarms dating from shortly after the Home opened. There were no subsequent entries. Mr Clark had never been instructed to record false or unwanted alarms and never did so¹⁵⁸⁹. Indeed, when Mr Clark was asked why there was no record of an incident which he described in which he claimed the Fire Service had been called out, he said “Because it was a false alarm”¹⁵⁹⁰.

Note to Chapter 23

It is accepted on behalf of the Balmer Partnership that if the fire alarm sounds on the nightshift one should not assume it is a false alarm but should phone the Fire Brigade. In particular it was accepted that in relation to the false alarm in December 2003 the Fire Brigade should have been summoned immediately. It was accepted that there should have been a proper record of false alarms. It was submitted that Thomas Balmer voiced his concerns to Matron that the nurse in charge had not called the Fire Brigade. It was claimed he voiced his concerns to Matron in the context of a general discussion. However he did not instruct Matron to speak to the staff member involved. It is clear to me that management should have taken the staff to task following these actions in what could have been a very serious fire. The inadequacies of the procedures in place were then apparent. Nothing was done by the Balmer Partnership to change what they knew to be the policy of the Home, namely to phone the Fire Brigade only if a fire was discovered. There were no written instructions to staff to phone the Fire Brigade if the fire alarm sounded. On behalf of the Matron it was said that that the fact that Thomas Balmer had expressed concern to her was not put to her in evidence. That does not appear to be denied on behalf of the Balmer Partnership. I have, however, in Chapter 18 made clear my view on fire safety responsibilities.

¹⁵⁸⁹ Joseph Clark, 21 January 2010, am, p. 104.

¹⁵⁹⁰ Joseph Clark, 21 January 2010, am, p. 94.

CHAPTER 24: JAMES REID'S INVOLVEMENT – FIRE RISK ASSESSMENT

James Reid

1. James Reid was a self-employed business consultant, who provided advice in employment law and health and safety¹⁵⁹¹. Between 1995 and 2003 the division of work between employment law and health and safety was about 60/40. The health and safety work which he undertook covered a wide range of health and safety matters¹⁵⁹².
2. Before becoming self-employed in 1995, Mr Reid had been employed for a number of years in managerial positions, firstly in Scottish Bus Group and then with Insurance Courier Services¹⁵⁹³.
3. Mr Reid held a NEBOSH General Certificate in Occupational Safety and Health, acquired following a course of study at Stevenson College. He was a Technician Member (formerly Associate Member) of the Institute for Occupational Safety and Health¹⁵⁹⁴. The basic requirement for that Membership was to hold the NEBOSH General Certificate¹⁵⁹⁵. As a member of the Territorial Army, he had attended a HM Forces Unit NCO Fire Course in 1998. In September 1999, he had undertaken a one day fire safety audit and fire risk assessment course at Gullane¹⁵⁹⁶. He held no specialist qualification in fire risk assessment¹⁵⁹⁷.

Involvement at Rosepark

4. Mr Reid was first engaged by Mr Balmer in 1996/97. He agreed to provide health and safety and employment law services for both Rosepark and Croftbank for a

¹⁵⁹¹ James Reid, 16 February 2010, am, p. 36.

¹⁵⁹² James Reid, 16 February 2010, am, pp. 52-55.

¹⁵⁹³ James Reid, 16 February 2010, am, pp. 38-42, 17 February 2010, pm, pp. 41-43.

¹⁵⁹⁴ James Reid, 16 February 2010, am, pp. 43-47.

¹⁵⁹⁵ James Reid, 16 February 2010, am, p. 47.

¹⁵⁹⁶ James Reid, 16 February 2010, am, pp. 48-51.

¹⁵⁹⁷ James Reid, 17 February 2010, am, p. 99.

quarterly retainer fee of £200¹⁵⁹⁸. He agreed to look over employment law contracts and policies and procedures, to provide health and safety policy and to make an annual inspection for health and safety issues. It was envisaged that he might be called on to provide advice by telephone on specific issues that might arise¹⁵⁹⁹.

5. Mr Reid understood that his appointment related to Regulation 7 of the 1999 Regulations¹⁶⁰⁰, which provided as follows:

“Every employer shall, subject to paragraphs (6) and (7), appoint one or more competent persons to assist him in undertaking the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions and by Part II of the Fire Precautions (Workplace) Regulations 1997.”

6. At the outset, Mr Reid provided an update of the health and safety policy which the Home had at the time. The general policy statement at the front of the Policy Manual originated from him¹⁶⁰¹. It is unclear whether any of the other health and safety documentation in the Manual did: if it did, it had been reformatted¹⁶⁰². Mr Reid also provided some generic template risk assessments for specific tasks or activities¹⁶⁰³.

7. After his appointment, Mr Reid visited Rosepark every 12 or 14 months¹⁶⁰⁴. During these visits:-

7.1. Mr Reid would sit down with Thomas or Anne Balmer – usually Thomas Balmer – and go through a series of questions.

7.2. Mr Reid would then do a walk through the Home, to identify any health and safety matters which required to be attended to¹⁶⁰⁵.

¹⁵⁹⁸ James Reid, 16 February 2010, am, pp. 57-59.

¹⁵⁹⁹ James Reid, 16 February 2010, am, pp. 58-59.

¹⁶⁰⁰ James Reid, 16 February 2010, pm, pp. 18-19.

¹⁶⁰¹ James Reid, 16 February 2010, am, pp. 63-65; 76-84.

¹⁶⁰² James Reid, 16 February 2010, am, pp. 63-76, 78, 80; 101-104; Alan Balmer, 3 June 2010, am, pp. 55-61; cf 4 June 2010, am, pp. 7-14, 127-132.

¹⁶⁰³ Alan Balmer, 3 June 2010, am, pp. 59-73.

¹⁶⁰⁴ James Reid, 16 February 2010, p. 60; Alan Balmer, 3 June 2010, am, pp. 42, 46-47.

¹⁶⁰⁵ James Reid, 16 February 2010, p. 60; 16 February 2010, pm, pp. 43-44; Alan Balmer, 3 June 2010, am, pp. 47, 50-54.

8. On one of these visits, he had viewed the fire training video¹⁶⁰⁶ and he understood that all staff would see that video¹⁶⁰⁷. He had, during previous visits, looked at records for portable appliance testing, and staff training records for matters such as manual handling¹⁶⁰⁸.

9. Thomas Balmer's evidence about Mr Reid's previous involvement at Rosepark was vague and unsatisfactory, but he did vaguely recall going through questions with Mr Reid¹⁶⁰⁹.

10. In carrying out audits or assessments, Mr Reid used a computer template. This was a generic health and safety template; not one specific to a care home¹⁶¹⁰.

11. Apart from Rosepark and Croftbank, Mr Reid dealt with two other nursing homes. These were the only clients he had dealt with up to January 2003 whose premises presented a sleeping risk or mobility impaired people¹⁶¹¹. He had never previously dealt with premises which presented as challenging an issue in relation to fire safety as Rosepark¹⁶¹².

12. Mr Reid was aware of the Approved Code of Practice on the application of the Management of Health and Safety at Work Regulations 1999 (Production 1440) and Fire Safety: An Employer's Guide (Production 1120), but not (before the fire at Rosepark) of the Home Office Green Guide (Production 1378), the Northern Ireland HTM 84 (Production 1436) or SHTM 84¹⁶¹³.

Production 216

¹⁶⁰⁶ James Reid 17 February 2010, am, pp. 11-12, pm, pp. 36-37.

¹⁶⁰⁷ James Reid, 18 February 2010, am, pp. 33-34.

¹⁶⁰⁸ James Reid, 16 February 2010, am, pp. 92-94.

¹⁶⁰⁹ Thomas Balmer, 7 May 2010, am, pp. 43, 52-57.

¹⁶¹⁰ James Reid, 16 February 2010, am, p. 88, pm, pp. 5-6.

¹⁶¹¹ James Reid, 17 February 2010, pm, pp. 24-25.

¹⁶¹² James Reid, 17 February 2010, pm, p. 23.

¹⁶¹³ James Reid, 17 February 2010, am, pp. 95-98.

13. Production 216 was described as a “Management of Health and Safety General Risk and Compliance Assessment Report” and bore the date 6 January 2003. Following the fire it was found in a filing cabinet in the Balmers’ office¹⁶¹⁴.

14. The document comprised:

14.1. A number of pages which were Word documents which had been generated by Mr Reid himself.

14.2. A section, generated by the computer template, which included a Master Survey and a computer-generated list of Outstanding Actions¹⁶¹⁵.

14.3. A section containing Word documents generated by Mr Reid, each of which contained, in tabular form, a “Hazard Identification & Risk Assessment” relating to a particular hazard¹⁶¹⁶.

15. The Introduction to the document stated¹⁶¹⁷:

“Purpose of Report and the extent of current legal compliance

The purpose of this General Risk and Compliance Assessment Report is to ensure that you, the employer are complying with the legislative duties imposed on you by the Health and Safety at Work etc Act 1974 and other relevant statutory requirements.

The Management of Health and Safety at Work Regulations 1992 and in particular Regulation 3 states:

“every employer shall make a suitable and sufficient assessment of:

- (a) the risks to the health and safety of his employees to which they are exposed whilst at work, and
- (b) the risks to the health and safety of persons who are not in his employment arising out of or in connection with the conduct by him of his undertaking”

To assist in this undertaking you have appointed Reid Consultants as Health and Safety Consultants to provide competent advice and guidance in conformance to Regulations 6 and 7 of the Management of Health and Safety at Work Regulations 1992.

¹⁶¹⁴ Carol Ann Brown, 12 August 2010, am, pp. 5-6.

¹⁶¹⁵ James Reid, 16 February 2010, am, pp. 111-112.

¹⁶¹⁶ James Reid, 17 February 2010, am, pp. 44-47

¹⁶¹⁷ Pro 216, p. 5; James Reid, 16 February 2010, am, pp. 94-97

The content of this report is a summary of our Consultants' findings at the time of General Risk and Compliance Assessment stated on the front cover of this report.

It should be noted that you have a legal duty to retain this report on file together with any subsequent documentation.”

16. This was followed by a page which stated as follows¹⁶¹⁸:

“At the time of this assessment visit it was established that you did not have in place a suitable and sufficient Health and Safety Policy with supporting documentation. A bespoke Health and Safety Policy and Procedures Manual has now been provided, and it now requires completion.

You are advised to adopt the policy and address issues raised by this, e.g. signatures, dates etc.

Section 2(3) of the Health and Safety at Work et Act 1974 states that

[the section is quoted]

Once the Policy Statement has been approved by you, and dated, you must ensure that it is brought to the attention of all your employees and any others who may be affected by your undertaking.

With reference to your “Organisation” and “Arrangements”, there are Sections contained without your Health and Safety Policy and Procedures Manual will identify job holders within your Organisation who have responsibility for the various aspects of health and safety management and or supervision.

You must ensure that the job holder(s) and employees identified are formally made aware of their responsibilities and have the appropriate training and resources allocated to allow them to fulfill their legal obligations within the scope of your Health and Safety Policy and supporting documentation.”

17. The next page set out a method of risk weighting used by Mr Reid to obtain a hazard rating. This operated by multiplying together numerical values attributed to the frequency of a hazard occurring, the likelihood of that hazard causing injury, and the severity of the injury¹⁶¹⁹.

¹⁶¹⁸ Pro 216, p. 6; James Reid, 16 February 2010, am, pp.

¹⁶¹⁹ James Reid, 16 February 2010, am, pp. 105-109.

18. There was then a page, prepared by Mr Reid, which set out in tabular form problems which Mr Reid had noted, including, inter alia the following:-

“HEALTH & SAFETY MANAGEMENT/DOCUMENTATION

REF	PROBLEMS NOTED	RECOMMENDATIONS	RATING
D1	Although a Health & Safety Policy was available, it did not have sufficient detail	A Health & Safety Policy and Procedures Manual has been supplied. All relevant sections of the Manual should be signed off and all staff should be given the opportunity to study the Manual and have any concerns addressed	150
D2	No Risk Assessments for tasks carried out by outside contractors	Full Risk Assessments should be obtained from outside contractors before they are allowed to commence any potentially hazardous work	150

FIRE

REF	PROBLEMS NOTED	RECOMMENDATIONS	RATING
F1	Employees have not been practiced in Fire Drills	Fire Drills should be carried out at six monthly intervals	500
F2	Some Fire points were partially obscured by day-to-day items	This requires very careful monitoring. Staff should be constantly reminded about the importance of keeping Fire points clear at all times	350
F3	Some fire extinguishers had their safety pin retaining clips missing	These items should be replaced	80
F4	Tins of paint stored in lift room	These items should be stored in a more suitable area	35

GENERAL

REF	PROBLEMS NOTED	RECOMMENDATIONS	RATING
G1	Door to the main electrical cupboard was left unlocked	This door should be locked at all times	150

...”

19. There then following the computer-generated list of Outstanding Actions. This identified four items:

F4. Are Fire Drills carried out?

W29. Do roofs that require occasional access having crawling boards available?

D5. Are Health & Safety responsibilities clearly defined in the Health & Safety Policy? Do employees have access to the Health & Safety Policy?

W11. Are doors on traffic routes provided with transparent panels?

In relation to F4 this page noted the “Risk” as “High” and identified the following action: “Fire Drills should be carried out at least every 6 months. The names of those taking part, the time taken to evacuate the premises and any remedial action needed should be noted.” Responsibility was attributed to “Alan Balmer/Matron” and the “Proposed Date” 30/01/03.

In relation to D5, this page noted the “Risk” as “Medium” and identified the following action: “Ensure that all employees are aware of their Health & Safety responsibilities and that they have access to the Health & Safety Policy”. Responsibility was attributed to “Jim Reid/Alan Balmer” and the “Proposed Date” 30/01/03.

In relation to W11, this page noted the “Risk” as “Medium” and identified the following action: “Doors on traffic routes would be provided with a transparent panel to allow anyone approaching the door to view anyone approaching from the other side”. Responsibility was attributed to “Maintenance” and the “Proposed Date” 10/01/03.

20. The computer-generated Master Survey comprised a list of questions, which called for a “Yes” or “No” answer. The answers to which had been input by Mr Reid following his visit to Rosepark. The computer had then generated against each question an “Action”¹⁶²⁰. The Master Survey included (amongst others) the following questions and answers.

20.1. D5. Are Health & Safety responsibilities clearly defined in the Health & Safety Policy? Do employees have access to the Health & Safety Policy?

Answer: No

Action: Ensure that all employees are aware of their Health & Safety responsibilities and that they have access to the Health & Safety Policy.

¹⁶²⁰ James Reid, 16 February 2010, am, pp. 113-117.

20.2. D6. Is there an Emergency Plan? Are staff aware of it?

Answer: Yes

Action: Ensure all employees have been trained to respond to the requirements of the plan.

20.3. M3. Do staff have adequate health and safety training? Is it documented?

Answer: Yes

20.4. M4. Have risk assessments been carried out? Have they been recorded (more than five employees)? Are they suitable and sufficient?

Answer: Yes

Action: Continue to monitor, review at regular intervals and amend if required.

20.5. E1. Has the fixed wiring installation been checked during the previous 5 years?

Answer: Yes

Action: Continue to monitor, ensuring fixed wiring installation is checked by a competent person at least every 5 years.

20.6. F1. Does the building have a Fire Certificate?

Answer: Yes

20.7. F2. Does the organization come under the Fire Precautions (Workplace) Regulations?

Answer: Yes

20.8. F3. Is there an Emergency Plan?

Answer: Yes

Action: Ensure that all staff are aware of the Emergency Plan and their role within it.

20.9. F4. Are fire drills carried out?

Answer: No

Action: Fire drills should be carried out at least every 6 months. The names of those taking part, the time taken to evacuate the premises and any remedial action needed should be noted.

20.10. F9. Have staff members been trained to use fire extinguishers?

Answer: Yes

Action: Ensure that refresher training is carried out at regular intervals

20.11. F15. Is the system for controlling the amount of flammable substances/flammable materials effective?

Answer: Yes

Action: Continue to monitor.

20.12. F18. Are all internal fire doors clearly labeled? Are they kept closed at all times?

Answer: Yes

Action: Continue to monitor, ensuring that internal fire doors do not get wedged/chocked open.

20.13. W11. Are doors on traffic routes provided with transparent panels?

Answer: No

Action: Doors on traffic routes should be provided with a transparent panel to allow anyone approaching the door to view anyone approaching from the other side.

21. There was a Hazard Identification & Risk Assessment sheet¹⁶²¹ for a hazard described as “Fire Extinguishers and Fire Escapes”. This identified the following under the heading “Hazard Category”: Fire, Gas, Human Error, Manual Handling and Use of work equipment. It identified the following “Persons at risk”: All workers. Inexperienced staff, Members of the public and Visitors. It quantified the hazard at the maximum possible hazard rating of 1000, by attributing a rating of 10 (“constantly”) to Frequency, a rating of 10 (“Inevitable”) to Likelihood, and a rating of 10 (“Fatality”) to Severity. It identified as “Existing Controls”: Fire Fighting Equipment; Comprehensive Fire Alarm System; Good Fire Management Procedures; and Staff Training. It answered “No” to the question “Are these controls adequate to contain the hazard?” In response to the question “If no, what additional measures are need to properly contain the hazard?” it stated “Regular fire drills should be carried out”.

22. The computer generated template which Mr Reid used was prepared using a version of the software which had, by January 2003, been superseded by updates¹⁶²².

The background to Production 216

23. A pre-inspection return was issued by the Care Commission towards the end of 2002. Among other questions that return asked¹⁶²³:-

“16. Has the premises’ Risk Assessment been reviewed in the last twelve months?”

24. Ms Meaney could not remember that question specifically but would have referred it to Mr Balmer¹⁶²⁴. This prompted the instruction of Mr Reid¹⁶²⁵. It was Alan Balmer who telephoned Mr Reid in relation to this. He instructed Mr Reid to deal with both buildings¹⁶²⁶. According to Thomas Balmer, Mr Reid was asked to produce it before the pre-inspection report had to be returned but was late.

¹⁶²¹ Pro 216, pp. 43-44; James Reid, 17 February 2010, am, pp. 48ff.

¹⁶²² Colin Todd, 27 July 2010, pm, pp. 38-42..

¹⁶²³ Pro 818, p. 59; Sarah Meaney, 22 February 2010, pm, pp. 41-42; Alan Balmer, 3 June 2010, am, pp. 75-76.

¹⁶²⁴ Sarah Meaney, 22 February 2010, pm, p. 42; Thomas Balmer, 7 May 2010, pm, pp. 42-43, 53-54.

¹⁶²⁵ Thomas Balmer, 7 May 2010, pm, pp. 52-53.

¹⁶²⁶ Thomas Balmer, 7 May 2010, pm, pp. 53-54; Alan Balmer, 3 June 2010, am pp. 78-80, 89-91.

25. The answer to the Care Commission's question was "Yes". Thomas Balmer accepted that the answer should have been "No"¹⁶²⁷. Sarah Meaney filled in a pre-inspection return to the Care Commission with information supplied by Thomas Balmer when she had no information herself to enter. Likewise, a question as to whether the service had a "risk assessment – premises" was ticked on the basis that it was in the process of being prepared by Mr Reid¹⁶²⁸.

The preparation of production 216

26. Mr Reid visited Croftbank and Rosepark on 6 January 2003¹⁶²⁹. He spent half a day at each home¹⁶³⁰.

27. Mr Reid attended first at Croftbank. He undertook a walk round the building with Alan Balmer before going through various questions with him and looking at certain records¹⁶³¹. Alan Balmer then took Mr Reid to Rosepark¹⁶³².

28. During the visit to Rosepark:-

28.1. Mr Reid walked round the building with Alan Balmer¹⁶³³. They went to all parts of the Home, including one or two residents' bedrooms. *Inter alia*, Mr Reid checked that the door to the main electrical cupboard in the foyer was locked, that fire extinguishers and fire notices were in place, that the corridor firedoors closed when the magnetic catches were released and the external fire exits opened and were not blocked¹⁶³⁴. Apart, perhaps, from some staff in the laundry and the kitchen, Mr Reid did not speak to any members of staff¹⁶³⁵.

¹⁶²⁷ Thomas Balmer, 7 May 2010, pm, p. 46.

¹⁶²⁸ Thomas Balmer, 7 May 2010, pm, p. 51.

¹⁶²⁹ James Reid, 16 February 2010, am, p. 85.

¹⁶³⁰ James Reid, 16 February 2010, am, p. 89.

¹⁶³¹ Alan Balmer, 3 June 2010, am, pp. 83-84.

¹⁶³² Alan Balmer, 3 June 2010, am, p. 84.

¹⁶³³ Alan Balmer, 3 June 2010, am, pp. 84-85.

¹⁶³⁴ James Reid, 16 February 2010, pm, pp. 33-37.

¹⁶³⁵ James Reid, 16 February 2010, pm, p. 78, 17 February 2010, pm, p. 56.

28.2. Mr Reid went through the list of questions generated by the computer template to which he was working with Alan Balmer¹⁶³⁶. He also looked at certain documentation, including at least Production 27 the Fire Register¹⁶³⁷. He saw neither the Policy Manual, Production 259, nor any Emergency Plan¹⁶³⁸.

29. According to Alan Balmer's evidence, the question and answer exercise took place in Matron's office and Matron and another nurse were also present¹⁶³⁹. I do not accept that evidence for the following reasons:

29.1. Mr Reid stated that he had no substantive dealings with Matron. Mr Reid stated that if Matron was about he would probably speak to her but simply as a courtesy and not to discuss matters of substance¹⁶⁴⁰. But he would not dispute evidence from Ms Meaney that she had never met him¹⁶⁴¹.

29.2. Ms Meaney stated that she saw Alan Balmer take two men right round the Home. Thomas Balmer came in later and asked Matron if she had seen Jim Reid. She had not been introduced to Mr Reid. She did not meet him on any other occasion¹⁶⁴².

29.3. Alan Balmer stated that he would not have had the knowledge to answer the questions for Rosepark¹⁶⁴³. However:-

29.3.1. He accepted that he had answered the questions asked during the walk-round¹⁶⁴⁴. He would have been willing, during the walk-round, to have a discussion with Mr Reid to the effect that the corridor fire-doors were closed at night¹⁶⁴⁵.

¹⁶³⁶ James Reid 16 February 2010, pm, pp. 33-37.

¹⁶³⁷ James Reid, 16 February 2010, am, pp. 91-92; Alan Balmer, 3 June 2010, am, pp. 84-85, 103-104, pm, pp. 16-17.

¹⁶³⁸ James Reid, 16 February 2010, am, pp. 119-120, pm, p. 25; cp pp. 99-104.

¹⁶³⁹ Alan Balmer, 3 June 2010, ; 4 June 2010, am, pp. 21-23, 38-39

¹⁶⁴⁰ James Reid, 16 February 2010, am, pp. 90-91.

¹⁶⁴¹ James Reid, 17 February 2010, pm, pp. 88-90

¹⁶⁴² Sarah Meaney, 18 February 2010, pm, pp. 21-22; 23 February 2010, am, p. 91.

¹⁶⁴³ Alan Balmer, 3 June 2010, am, pp. 107, 111-112, pm, pp. 3-12.

¹⁶⁴⁴ Alan Balmer, 3 June 2010, am, pp. 112-113.

¹⁶⁴⁵ Alan Balmer, 3 June 2010, pm, pp. 20-22.

29.3.2. It is not inherently unlikely that Alan Balmer would answer questions about Rosepark, proceeding on the assumption that the position was the same as that at Croftbank. He provided quite detailed information to the police following the fire about matters such as electrical testing and training at Rosepark¹⁶⁴⁶. He was also prepared to give evidence to the Inquiry to the effect that induction training at Rosepark would be the same as at Croftbank¹⁶⁴⁷.

30. Thomas Balmer was in the building while Mr Reid was carrying out the exercise, but took no part in it¹⁶⁴⁸.

31. Some of the questions in the Master Survey were answered on the basis of observation; others on the basis of information provided orally by Alan Balmer; and at least Question F4 on the basis of documentation. Mr Reid answered inter alia the following questions on the basis of information provided to him orally by Alan Balmer during his visit: D6, D8, M3, E1, F1, F9¹⁶⁴⁹.

32. Mr Reid's approach was, to some extent, informed by his previous work at the Home.

32.1. He understood, on the basis of oral discussions which he had previously had, that all staff would get fire training at induction and that it would be carried out at intervals thereafter. He had previously viewed the fire safety training video, and had been told by Thomas Balmer that they had a fire-fighter who came in to deliver a fire safety talk to staff¹⁶⁵⁰. The viewing of the video had led him to believe that the cross-corridor fire doors would be closed at night¹⁶⁵¹.

32.2. Mr Reid had asked about the checking of the fixed electrical installation on previous visits and had never received a negative answer to this question. It would have been his practice to explain what was meant by "the fixed wiring

¹⁶⁴⁶ Alan Balmer, 2 June 2010, pm, pp. 90-94, 3 June 2010, am, pp. 114-121, pm, p. 6.

¹⁶⁴⁷ Alan Balmer 3 June 2010, pm, p. 73; 4 June 2010, am, pp. 104-126

¹⁶⁴⁸ Alan Balmer, 3 June 2010, am, pp. 87-88, 4 June 2010, am, pp. 42-3, 72-3.

¹⁶⁴⁹ James Reid, 16 February 2010, pm, pp. 1ff

¹⁶⁵⁰ James Reid, 17 February 2010, am, pp. 11-15.

¹⁶⁵¹ James Reid, 17 February 2010, am, pp. 9-11.

installation” and that, by checking, he meant examination and checking in accordance with the IEE Regulations¹⁶⁵².

32.3. He was aware (from previous discussion with Thomas Balmer) that some bedroom doors would be left open, because residents became distressed if the door was closed. He was concerned about this (inasmuch as it increased the risk of smoke and flames entering the room or spreading out), but understood the reasons for the practice¹⁶⁵³.

33. Mr Reid stated that he had answered question F4 (about fire drills) in the way that he did because he had found, by examining Production 27, that the Home was overdue a fire drill (which he considered should be undertaken every 6 months). The previous drill had in fact taken place less than 6 months before his visit, but Mr Reid explained that it was described only as “fire drill” with no reference to whether there had been a partial evacuation¹⁶⁵⁴. He also explained that the rating of 500 given to this point reflected how seriously the requirement for fire drills should be taken “and that fire is such a high risk in the workplace that drills should be carried out at regular intervals”¹⁶⁵⁵.

34. During the walk-round Mr Reid checked the cupboard where the main switchgear was in the foyer to see whether there was a buildup of flammable materials there and whether the door was locked. He was not aware whether there were fuse boxes in other locations¹⁶⁵⁶.

34.1. Had he looked in a cupboard and seen a fuse box and on shelves adjacent to that piles of papers and games and plastic aprons and suchlike, he would have answered F15 in the negative and recommended their removal. The same would have applied if he had found aerosols in that cupboard¹⁶⁵⁷.

¹⁶⁵² James Reid, 16 February 2010, pm, pp. 46-49.

¹⁶⁵³ James Reid, 17 February 2010, am, pp. 91-93, pm, pp. 81-84.

¹⁶⁵⁴ James Reid, 16 February 2010, pm, pp. 56-71

¹⁶⁵⁵ James Reid, 16 February 2010, pm, pp. 73-74.

¹⁶⁵⁶ James Reid, 16 February 2010, pm, pp. 85-87; 17 February 2010, am, p. 60.

¹⁶⁵⁷ James Reid, 16 February 2010, pm, pp. 85-87, 17 February 2010, am, pp. 1-5.

34.2. Mr Reid had recommended that the door to the main switchgear cupboard should be locked because of the potential for someone going into the cupboard and possibly getting electrocuted by touching the switchgear. The same concern would have applied to other cupboards containing fuse boxes¹⁶⁵⁸.

35. Mr Reid initially explained that the Hazard Identification and Risk Assessment for “Fire Extinguishers and Fire Escapes” was concerned with the risk of injury through a fire evacuation using fire escapes or from incorrect use of fire extinguishers, and not to the risk of injury by smoke and fire, though it later became apparent that he had in mind risks arising from fire more generally¹⁶⁵⁹. This hazard had been given the maximum possible rating. The following comments may be made about the exercise which Mr Reid reported in this part of the document:-

35.1. Mr Reid acknowledged that the assessment did not address the risk to residents of the Home¹⁶⁶⁰.

35.2. The reference to “Good Fire Management Procedures” referred to the following¹⁶⁶¹:-

35.2.1. There was little in the way of a build-up of flammable materials.

35.2.2. The fire alarm system was tested regularly.

35.2.3. The fire exits were not jammed or blocked.

35.3. The only respect in which Mr Reid considered that the existing controls were inadequate to control the risk was the problem which he had identified in relation to fire drills.

¹⁶⁵⁸ James Reid, 17 February 2010, am, pp. 6-8.

¹⁶⁵⁹ James Reid, 17 February 2010, am, pp. 49-50, 56-57.

¹⁶⁶⁰ James Reid, 17 February 2010, am, pp. 50-52.

¹⁶⁶¹ James Reid, 17 February 2010, am, pp. 59-

The response to Production 216

36. After Production 216 had been prepared, Mr Reid sent it to Alan Balmer¹⁶⁶². Alan Balmer did not look at the document and simply passed it on to Rosepark¹⁶⁶³. He was not involved in any discussions about the document¹⁶⁶⁴. He was not concerned to know whether the exercise had generated any action points¹⁶⁶⁵.

37. Thomas Balmer claimed that he perused Production 216, spoke to Mr Reid on the phone about certain aspects of it, and passed it to Ms Meaney for her comments¹⁶⁶⁶. I do not accept his evidence on that point:-

37.1. Mr Reid stated that he had no further contact with anyone from Rosepark in relation to Production 216¹⁶⁶⁷;

37.2. Ms Meaney stated that she had never seen the document and that she had never been shown a fire risk assessment in relation to Rosepark. A requirement to note the names of those taking part in drills, the time taken to evacuate the premises and remedial action needed (as specified in Production 216) was never drawn to her attention¹⁶⁶⁸.

A fire drill was in fact held in early February 2003¹⁶⁶⁹. This was arranged by Matron because of the proximity of the Care Commission inspection at a time when Mr and Mrs Balmer were on holiday.

No action was taken by Thomas Balmer in respect of any of the issues raised in the fire risk assessment.

¹⁶⁶² James Reid, 16 February 2010, pm, p. 26, 17 May 2010, am, p. 83; Thomas Balmer, 5 May 2010, pm, p. 22

¹⁶⁶³ Alan Balmer, 3 June 2010, am, pp. 91-93

¹⁶⁶⁴ Alan Balmer, 3 June 2010, am, pp. 93-94

¹⁶⁶⁵ Alan Balmer, 3 June 2010, am, pp. 98-99, 4 June 2010, am, p. 146

¹⁶⁶⁶ Thomas Balmer, 5 May 2010, pm, pp. 22-26; 7 May 2010, am, p. 50.

¹⁶⁶⁷ James Reid, 17 May 2010, am, p. 84.

¹⁶⁶⁸ Sarah Meaney, 18 February 2010, pm, pp. 19-25.

¹⁶⁶⁹ Thomas Balmer, 7 May 2010, am, pp. 50-51.

38. Notwithstanding that the risk assessment had not in fact at that date been undertaken, Ms Meaney signed and dated the Pre-inspection Return on 10 December 2002, with Question 16 answered “Yes”.

Were there earlier risk assessments?

39. An issue arises on the evidence as to whether or not a document of the sort seen in Production 216 had ever previously been produced for Rosepark.

39.1. Production 216 was the only document of this sort which was recovered after the fire at Rosepark Care Home¹⁶⁷⁰. Mr Balmer stated that generally speaking, they archived most, if not all, documents¹⁶⁷¹. The reasonable inference is that there had never been any such document.

39.2. Thomas Balmer’s evidence in relation to this matter was unsatisfactory. He initially stated that Production 216 was the second such document produced by Mr Reid¹⁶⁷² albeit that he could remember nothing about it¹⁶⁷³. He had then given evidence that Mr Reid had provided a survey in disc form in 1997 and then in updates, which were sent in disc form to Alan Balmer at Croftbank House. But it became apparent that, so far as Mr Balmer understood the position, the material provided on these discs consisted of a health and safety policy and blank risk assessment forms and not a risk assessment¹⁶⁷⁴. His ultimate position was that he did not recall ever previously having received a document of the nature of Production 216 or ever having previous discussions with Mr Reid about a risk assessment¹⁶⁷⁵.

39.3. Alan Balmer gave evidence that there had been no complete risk assessment in one document for the building prior to the exercise undertaken in January 2003¹⁶⁷⁶.

¹⁶⁷⁰ Carol Ann Brown, 12 August 2010, am, p. 6.

¹⁶⁷¹ Thomas Balmer, 7 May 2010, am, p. 52.

¹⁶⁷² Thomas Balmer, 4 May 2010, am, p. 75; 5 May 2010, pm, pp. 79-80, 6 May 2010, pm, pp. 18-19.

¹⁶⁷³ Thomas Balmer, 6 May 2010, pm, pp. 22-23, 28-35.

¹⁶⁷⁴ Thomas Balmer, 7 May 2010, am, pp. 2-25, 33-35.

¹⁶⁷⁵ Thomas Balmer, 7 May 2010, am pp. 35-38.

¹⁶⁷⁶ Alan Balmer, 3 June 2010, am, pp. 47-49, 79.

40. Mr Reid stated that he had produced reports following his earlier visits¹⁶⁷⁷. However, he had retained no record of any report prior to Production 216¹⁶⁷⁸. If he did produce any sort of report or documentation following these earlier visits, they were not in the same form as Production 216¹⁶⁷⁹, and, in any event, those documents had left no impression on the management of Rosepark and had not been retained¹⁶⁸⁰.

41. In the whole circumstances I am not prepared to accept that there was any previous document which could be regarded as a risk assessment.

Note to Chapter 24

With regard to the submissions on behalf of the Balmer family, it is the case that Mr Reid had no specialist qualification in fire risk assessment. He approached the Balmers and held himself out to be a health and safety and employment expert. The fire risk assessment required by statute to be undertaken by the Balmer Partnership. They were the duty holders. There was no legal requirement relating to any particular type of qualification that a fire risk assessor employed by the duty holder required to have. This issue is dealt with in Chapter 46(4). It is correct to state that Mr Reid's template risk assessments were not specific to care homes, that they were out of date, and that he did not have the experience or competence or qualifications to hold himself out as an expert in fire risk assessment.

The fact of the matter is that the responsibility for carrying out a suitable and sufficient fire risk assessment lay on Balmer Partnership. That responsibility could not be delegated. However whether that fire risk assessment was in fact suitable and sufficient would appear to be immaterial as Thomas Balmer took no action at all to implement any of the recommendations which it contained.

¹⁶⁷⁷ James Reid, 17 February 2010, pm, pp. 60-61.

¹⁶⁷⁸ James Reid, 16 February 2010, am, pp. 60-61.

¹⁶⁷⁹ Alan Balmer, 3 June 2010, am, p. 75.

¹⁶⁸⁰ Alan Balmer, 3 June 2010, am, pp. 46-47, 75.

As far as earlier risk assessments are concerned, I have indicated that I am not persuaded that such documents existed. If they had been received, they would have been found in the filing cabinets.

I accept the submission on behalf of SF&R that, if Thomas Balmer reposed considerable faith in Mr Reid's abilities and if he had ever considered the document, it is inconceivable that he would not have reacted to the fact that the report quantified fire hazard at the maximum possible rating of 1,000. I accept that the evidence supports the view that the document barely impinged upon management as no steps were taken to reduce the fire hazard rating following receipt of the document.

As far as the submissions on behalf of Mr Reid are concerned, it was accepted that he held no specific qualifications in respect of fire risk assessment. He did attend a one day fire safety audit and risk assessment course at Gullane. The course lasted one day and he was provided with a handbook intended to be used as a self study guide. It was accepted that he was employed by the Balmer Partnership as an adviser. It is noted that Mr Reid accepts that in producing a suitable and sufficient risk assessment he should have addressed the needs of the residents within the home. While it may be the case that Mr Reid was never instructed by the Balmers to put in place an evacuation plan or to become actively involved in staff training, the shortcomings of the existing evacuation plan, which should have been identified in a suitable and sufficient fire risk assessment, were not identified by Mr Reid. The deficiencies in staff training, which should have been identified in a suitable and sufficient risk assessment, were not identified by Mr Reid.

It may be that Mr Reid understood Mr Balmer was to retain responsibility for the evacuation plan and all staff training would be dealt with in house. However the issue which I require to deal with is that it would have been a reasonable precaution to have had in place a suitable and sufficient risk assessment which would have identified the various failings in respect of the fire safety arrangements in place in the care home. I accept that it would have been perfectly reasonable for Mr Reid to have undertaken a risk assessment without being involved in the implementation of the actions.

CHAPTER 25: VISITS TO, AND RE-INSPECTIONS OF, ROSEPARK BY OFFICERS OF STRATHCLYDE FIRE AND RESCUE SERVICE (“SF&R”) UNDER SECTION 1(1)(D) OF THE FIRE SERVICES ACT 1947

The purpose of this chapter is twofold.

In the first place, it provides a factual narrative of the visits made by officers of SF&R to Rosepark under section 1(1)(d) of the Fire Services Act 1947. The visits are relevant to an understanding of the nature and extent of contact between Rosepark and SF&R prior to the fire. They are also relevant to an understanding of the degree of misunderstanding which existed among regulators as to the role assumed by SF&R in relation to nursing homes like Rosepark.

In the second place, this chapter provides a factual narrative in relation to the risk categorisation of Rosepark. Risk categorisation was relevant at two levels. It could advise the level of pre-determined attendance of fire appliances at premises, and it could also affect the frequency with which familiarisation visits were undertaken at premises by the watches of local fire stations.

In light of the information set out below, I conclude in Chapter 44(5) and at RP5.4 that it would have been a reasonable precaution for SF&R to have classified Rosepark as “special risk” under Operational Technical Note index number A6 (OTNA6), such that each Watch at Bellshill Fire Station made an annual familiarisation visit.

Introduction

1. Section 1(1)(d) of the Fire Services Act 1947¹⁶⁸¹ provided that-

“It shall be the duty of every fire authority in Great Britain to make provision for fire-fighting purposes, and in particular every fire authority shall secure-

(d) efficient arrangements for obtaining, by inspection or otherwise, information required for fire-fighting purposes with respect to the character of the buildings and other property in the area of the fire authority, the available water supplies and the means of access thereto, and other material local circumstances...”

2. The section just described was for the benefit and protection of operational fire officers¹⁶⁸².

¹⁶⁸¹ Production 1829; pp4-5;

¹⁶⁸² Sir Graham Meldrum, 3 August 2010, am, p32; Ian Falconer, 4 February 2010, pm, pp40-41;

3. In practice, the intention of the section, as understood by operational fire fighters at the time, was that fire officers would attend premises within their area of operation, become familiar with those premises, their layout, the location of services, and any particular risks of which they required to be aware¹⁶⁸³, indeed anything that might affect operational capabilities¹⁶⁸⁴.
4. Sir Graham Meldrum, formerly HM Chief Inspector of Fire Services for England and Wales, described the purpose of the section as being to familiarise fire fighters with the layout of a particular building, any particular risks associated with the building, the water supplies to the building, such matters as the built in fire protection in the building, the life risk applicable to it, the number of staff who would be available for an evacuation, and the training and knowledge of staff as to their role during an evacuation. Access to a building was also an area that would be covered by a familiarisation visit, and, allied to that, questions such as where appliances would be parked, and the location of the fire alarm panel (such that appliances responding to an incident would attend at the point as close as possible to the main entrance and the fire alarm panel¹⁶⁸⁵.
5. Hugh Adie, latterly Senior Divisional Fire Safety Officer for SF&R, based at Brigade Headquarters, Hamilton, was asked what would be covered in a section 1(1)(d) on the matter of access. His response was to refer to (i) the nearest available main road to the building, (ii) where the appliances could be sited should they require to be engaged in firefighting operations, (iii) the location of the nearest water supply, and (iv) the height and number of floors in the building¹⁶⁸⁶
6. Strathclyde Fire Brigade (as it then was) sought to give effect to section 1(1)(d) of the 1947 Act by a system of inspections by watches stationed at the local Fire Station.
7. In December 1989 Strathclyde Fire Brigade issued updated guidance on inspections under section 1(1)(d) of the 1947 Act. The guidance was included in part

¹⁶⁸³ Jeff Ord, 1 July 2010, pm, p74;

¹⁶⁸⁴ Ian Falconer, 4 February 2010, pm, p40;

¹⁶⁸⁵ Sir Graham Meldrum, 3 August 2010, am, pp34-35;

¹⁶⁸⁶ Hugh Adie, 29 June 2010, pm, pp57-58;

II of a document known as “Brigade Instruction – Operational Technical Note Index No. A6 (“OTN A6”)¹⁶⁸⁷.

8. Paragraph 2.1(xvii) of part II of OTN A6 deemed residential care premises such as elderly persons homes as being normally suitable for inspection and report.

9. Following its opening in 1992 was the subject of inspection by each of Red, Green, White and Blue Watches from the local fire station, Bellshill Fire Station¹⁶⁸⁸. A record of visits and re-inspections, together with relevant information ingathered through such visits or re-inspections was maintained by Strathclyde Fire Brigade¹⁶⁸⁹.

10. One copy of production 182, comprising the section 1(1)(d) records for Rosepark, was kept in the general office of Bellshill Fire Station. Another copy was kept on the appliance. Records for all 1(1)(d) premises were kept in this way¹⁶⁹⁰.

11. The intention of OTN A6 was that premises not designated as “special risk” would be visited by one Watch per year. In practice this meant that each Watch would visit each set of premises deemed suitable for a section 1(1)(d) inspection once every four years¹⁶⁹¹.

12. In practice a re-inspection, where it is referred to in paragraph 3.1 of OTN A6, was carried out by the operational personnel of the whole of one Watch, and was treated as a familiarisation visit¹⁶⁹².

13. Premises designated as “special risk” would attract an annual visit by *each* Watch¹⁶⁹³.

14. Premises would be considered to be “special risk” if they needed a first attendance over and above that appropriate to the risk which predominated in the surrounding area, such as “Residential care premises of substantial size presenting

¹⁶⁸⁷ Production 1410, p15 *et seq.*; Ian Falconer, 4 February 2010, pm, pp49 *et seq.*

¹⁶⁸⁸ Production 182, p3;

¹⁶⁸⁹ Production 182, generally; Ian Falconer, 4 February 2010, pm, p41;

¹⁶⁹⁰ Ian Falconer, 4 February 2010, pm, pp43-44;

¹⁶⁹¹ Ian Falconer, 4 February 2010, pm, pp53-56; Production 1410, page 18, paragraph 3.1;

¹⁶⁹² Ian Falconer, 4 February 2010, pm, pp57-58, 64-65

¹⁶⁹³ Production 1410, p18, paragraph 3.2; Ian Falconer, 4 February 2010, pm, pp58-60;

abnormal risks to life or property”. Bellshill was a “C” risk area¹⁶⁹⁴. If there were premises which fell within the definition of “special risk” then the pre-determined attendance could be increased¹⁶⁹⁵.

15. Under the now repealed Fire Services Act 1947 there was a time set for attendance at an incident of the first and second appliances. A category “B” building would not attract a greater pre-determined attendance. It would, however, attract a shorter target attendance time by the first and second attending appliances¹⁶⁹⁶.

16. OTN A6, paragraph, part II, provided for the giving of annual lectures to operational personnel on all 1(1)(d) risks in the Fire Station’s area¹⁶⁹⁷. The lectures were not for the benefit of operators or employees of the visited premises¹⁶⁹⁸.

17. Where a section 1(1)(d) visit was to be arranged it was done in advance by telephone. If possible a person with knowledge of the premises was to be available to accompany the Fire Brigade personnel around and supply information on the building, its contents and processes¹⁶⁹⁹.

18. It would be normal practice, after a visit, for the section 1(1)(d) report to be shown to the occupier and any material changes approved¹⁷⁰⁰. Matters affecting fire precautions and giving rise to concern were to be brought to the attention of the occupier, whom failing the fire prevention department (and, in extreme cases, there Fire Prevention Officer was to be called)¹⁷⁰¹.

19. In relation to pre-planning of section 1(1)(d) visits or inspections, the guidance stated that personnel should be encouraged to participate in the inspection by being delegated to gather information on specific matters, such as *inter alia* access to and

¹⁶⁹⁴ Victoria Neill, 4 December 2009, am, p130;

¹⁶⁹⁵ Production 1410, p18, paragraph 5.2.4(i); Ian Falconer, 4 February 2010, pm, pp60-63;

¹⁶⁹⁶ Victoria Neill, 4 December 2009, am, pp82-91;

¹⁶⁹⁷ Production 1410, page19, paragraph 3.5

¹⁶⁹⁸ Ian Falconer, 4 February 2010, pm, pp67-68;

¹⁶⁹⁹ Production 1410, page 19, paragraph 3.6; Ian Falconer, 4 February 2010, pm, pp69-70;

¹⁷⁰⁰ Ian Falconer, 4 February 2010, pm, pp72-73;

¹⁷⁰¹ Production 1410, page 19, paragraphs 3.7, 3.8; Ian Falconer, 4 February 2010, pm, pp73-76;

within the premises, and the location in the premises of employees or residents¹⁷⁰². It was critical that operation personnel had information relating to such matters because they might attend an operational incident at the premises, and the information was for their benefit¹⁷⁰³.

20. So far as access was concerned the kind of things that would be looked at during a visit would be the main entrance, the easiest means of vehicular access, access to upper and lower floors, doors and windows¹⁷⁰⁴.

21. A sign of the kind seen on photograph 887A (containing the phrase “Vehicular access via Rosepark Avenue”) was the sort of detail that one would expect to be picked up on and noted in the records¹⁷⁰⁵.

22. During a visit or inspection it was important to establish where the fire alarm panel was situated because that is where the Fire Brigade would normally first attend and meet with the responsible person. The panel designates where the alarm sounded and therefore gives valuable information to the attending fire crews¹⁷⁰⁶.

23. At least in the view of Ian Falconer, who was named as the officer in charge of the first section 1(1)(d) visit to Rosepark, it was important to know as much as you could in advance of any incident about the whereabouts in a building of the life risk. This was because unfamiliarity with the whereabouts of the life risk could lead to the committing of crews to the wrong parts of the building¹⁷⁰⁷.

Visits/Re-inspections at Rosepark prior to the Fire

24. The date of the initial inspection of Rosepark is probably incorrect. The officer in charge, Ian Falconer, thought that he was based at Bellshill Fire Station between October 1995 and June 1996. Subsequent reference to a police statement caused him to

¹⁷⁰² Production 1410, page 20, paragraph 4.1; Ian Falconer, 4 February 2010, pm, pp76-78;

¹⁷⁰³ Ian Falconer, 4 February 2010, pm, pp77-78;

¹⁷⁰⁴ Ian Falconer, 4 February 2010, pm, p79;

¹⁷⁰⁵ Ian Falconer, 4 February 2010, pm, pp81-82;

¹⁷⁰⁶ Ian Falconer, 4 February 2010, pm, pp89-90;

¹⁷⁰⁷ Ian Falconer, 4 February 2010, pm, pp95-97;

revise those dates to June 1995 and June 1996¹⁷⁰⁸. He did carry out a familiarisation visit during the mid 1990s¹⁷⁰⁹, so it may in fact have been on 21 August 1995¹⁷¹⁰.

25. Mr Falconer stated that, during the visit he checked the premises for vehicular and appliance access. In fact, when he attended for his familiarisation visit, Mr Falconer arrived via Rosepark Avenue¹⁷¹¹. He recalled that the driveway to the east of the building (viewed from New Edinburgh Road) had a fairly significant incline which might have implications for access by appliances. No concerns about the New Edinburgh Road entrance were recorded in the section 1(1)(d) report¹⁷¹².

26. The life risk numbers were night time were recorded as being 42 residents and 4 staff. That was the kind of detail that would be amended by the process of re-inspection if the numbers changed. The ratio of staff to residents would tell you that, in a search and rescue situation, you may require further resources if it was a serious fire¹⁷¹³.

27. There was nothing in the section 1(1)(d) report to indicate any impediment in access via either of the routes that might take one to the main entrance¹⁷¹⁴. Mr Falconer initially thought there was plenty of access for a fire appliance via New Edinburgh Road¹⁷¹⁵. Under reference to production 887H, Mr Falconer said that he did not know whether, as a matter of fact, an appliance could access the main entrance; it would be very restricted and you would have to physically try it. In his visit to Rosepark there was no attempt made to drive up from New Edinburgh Road¹⁷¹⁶.

¹⁷⁰⁸ Ian Falconer, 5 February 2010, am, pp5-7;

¹⁷⁰⁹ Ian Falconer, 4 February 2010, pm, pp42-44, 99;

¹⁷¹⁰ Production 182, p4;

¹⁷¹¹ Ian Falconer, 4 February 2010, p104;

¹⁷¹² Ian Falconer, 4 February 2010, pm, pp101-103;

¹⁷¹³ Ian Falconer, 5 February 2010, am, pp2-4;

¹⁷¹⁴ Ian Falconer, 5 February 2010, am, p10;

¹⁷¹⁵ Ian Falconer, 5 February 2010, am, p55 (cross);

¹⁷¹⁶ Ian Falconer, 5 February 2010, am, pp82-83 (re-exam);

28. Mr Falconer recalled attending a lecture relative to the section 1(1)(d) report for Rosepark. The lecture was a talk through the inspection report, in which such matters as hazards, access points, AFA systems and persons resorting would be covered¹⁷¹⁷.

29. Jeremy Eckford was a Station Officer at Bellshill between 1994 and 1997¹⁷¹⁸. The principal matters that would be looked at in a section 1(1)(d) visit would be (i) access and egress, (ii) water supplies, (iii) the character of the building, and (iv) other local circumstances affecting the building being inspected¹⁷¹⁹.

30. Generally, the full operational Watch would attend at a section 1(1)(d) visit. The purpose of that was to familiarise all members of the Watch with the characteristics of the building¹⁷²⁰

31. Mr Eckford was officer in charge of the visit on 28 May 1997. A training lecture appears to have occurred on the same date¹⁷²¹. Mr Eckford had no recollection of any circumstances arising at the visit which would have caused him to amend the section 1(1)(d) report. The kinds of issues that his visit would have covered were those set out in the OTN A6¹⁷²². If there were particular problems with a building a training exercise might be held there, as contemplated in paragraph 6.1 of the guidance¹⁷²³. There is no evidence that such an event occurred at Rosepark.

32. Daniel Longmuir was a Station Officer based at Bellshill for some 7 years prior to 2003¹⁷²⁴. He was the officer in charge of Green visit when it visited Rosepark on 14 January 1998. Although described as a re-inspection visit it was nonetheless a familiarisation visit for the Watch. The general idea was that, if a fire occurred, fire fighters would have an idea of the layout, emergency doors, escape doors, and best means of entry¹⁷²⁵. Mr Longmuir would check the figures for life risk. There was an entry in the record of visits and re-inspections indicating “no change” for the visit on 14 January 1998. That meant that no amendments required to be made to the record

¹⁷¹⁷ Ian Falconer, 5 February 2010, am, pp15-16;

¹⁷¹⁸ Jeremy Eckford, 5 February 2010, am, p91;

¹⁷¹⁹ Jeremy Eckford, 5 February 2010, am, pp92-93;

¹⁷²⁰ Jeremy Eckford, 5 February 2010, am, pp99-100;

¹⁷²¹ Jeremy Eckford, 5 February 2010, am, pp104;

¹⁷²² Production 1410, page 20, paragraph 4.1

¹⁷²³ Jeremy Eckford, 5 February 2010, am, pp114-115;

¹⁷²⁴ Daniel Longmuir, 5 February 2010, am, p122;

¹⁷²⁵ Daniel Longmuir, 5 February 2010, am, p125;

following the re-inspection. Mr Longmuir was also the officer in charge on the occasion of a re-inspection of Rosepark on 16 September 2000; again, no change was reported. Mr Longmuir could not recall if any concerns arose over access at either of the re-inspection visits, although access to the building would have been looked at. Had there been any concerns they would have been recorded in the section 1(1)(d) record. On question Mr Longmuir might ask was which of the external doors was the easiest of access¹⁷²⁶.

33. The lectures referred to in production 182, page 3, were more in the nature of discussions which tended to consider a number of different premises¹⁷²⁷.

34. Desmond Keating was a Station Officer based at Bellshill during the 1990s¹⁷²⁸. He identified himself as having been officer in charge at the time of the lecture on 17 November 1997. The lecture to Red Watch would have involved going through practically all the details of the section 1(1)(d) report¹⁷²⁹. One of the details covered would be knowledge of the number of residents. This would let you know the level of assistance you would need off other Fire Brigade units if you had to evacuate that number of residents in a fire¹⁷³⁰. Mr Keating had no recollection of attending a section 1(1)(d) visit to Rosepark¹⁷³¹. Mr Keating's sub-officer, David Fleming, identified that he was the officer in charge in connection with a lecture on the Rosepark section 1(1)(d) dated 24 October 1998. Mr Fleming explained that the lecture was in the nature of a familiarisation with the premises, the routes to the premises, and the services at the premises. It was important that the Watch was kept up to date on such matters, including the route to get to the premises concerned¹⁷³².

35. Mr Fleming had a recollection of visiting Rosepark on a section 1(1)(d) visit. He said that access to the premises, and the route to it, would be matters that would be looked at. Under reference to production 182, page 4, Mr Fleming agreed that the address on the inspection form contained reference to both New Edinburgh Road and

¹⁷²⁶ Daniel Longmuir, 5 February 2010, am, pp123-135;

¹⁷²⁷ Daniel Longmuir, 5 February 2010, am, pp137-143;

¹⁷²⁸ Desmond Keating, 5 February 2010, am, p145;

¹⁷²⁹ Desmond Keating, 5 February 2010, am, p150;

¹⁷³⁰ Desmond Keating, 5 March 2010, am, p153;

¹⁷³¹ Desmond Keating, 5 March 2010, am, p157;

¹⁷³² David Fleming, 5 March 2010, pm, pp5-6

Rosepark Avenue.¹⁷³³ In relation to access Mr Fleming would interested to establish the main route into the premises and whether it is clear at all times, whether you could access the premises readily and quickly and whether the premises were kept locked¹⁷³⁴.

36. Mr Fleming agreed that the aim of the section 1(1)(d) process of familiarisation was to make all personnel on the Watch conversant with the premises that they may have to attend¹⁷³⁵.

37. Alexander Anderson was stationed at Bellshill between 1997 and 2000. He was a member of White Watch¹⁷³⁶.

38. Mr Anderson confirmed that he delivered the lecture which, in the section 1(1)(d) records for Rosepark¹⁷³⁷, is dated 7 November 1998. At the lecture the members of the Watch would discuss access, water supplies, and the characteristics of the building. The lectures could be combined with a visit¹⁷³⁸. Any concerns about access to, and within, the premises would be noted in the section 1(1)(d) records¹⁷³⁹

39. Mr Anderson confirmed from the records that there was no lecture recorded after 18 February 2000. The last lecture for Blue Watch was recorded as 8th September 1998. While the training lectures may have involved 6-12 premises at a time, their occurrence would be noted in the section 1(1)(d) records for each building¹⁷⁴⁰.

40. Michael Wilson formerly served with SF&R before retiring in March 2005 as a Leading Fire Fighter, Green Watch. For the last 20 years of his career he was stationed at Bellshill¹⁷⁴¹.

41. Mr Wilson was probably in attendance at two section 1(1)(d) visits, namely those dated 14 January 1998 and 16 September 2000¹⁷⁴². He was, in any event, familiar with Rosepark as his father was in the home.

¹⁷³³ David Fleming, 5 March 2010, pm, pp13-14;

¹⁷³⁴ David Fleming, 5 March 2010, pm, p20;

¹⁷³⁵ David Fleming, 5 March 2010, pm, p23;

¹⁷³⁶ Alexander Anderson, 5 February 2010, pm, pp25-26;

¹⁷³⁷ Production 182, p3;

¹⁷³⁸ Alexander Anderson, 5 February 2010, pm, pp27-29;

¹⁷³⁹ Alexander Anderson, 5 February 2010, pm, p33;

¹⁷⁴⁰ Alexander Anderson, 5 February 2010, pm, pp34-37;

¹⁷⁴¹ Michael Wilson, 5 February 2010, pm, pp38-39;

42. Mr Wilson gave two lectures on Rosepark, namely those dated 9 December 1996 and 1 November 1999. During the lectures the Watch would be made familiar with the number of people in the home, where the main electrical intake would be, where the residents would gather during the day, and where all the bedrooms were (and on what levels)¹⁷⁴³.

43. James Muir was a Sub Officer stationed at Bellshill in April 2002, attached to White Watch. He was present at the section 1(1)(d) visit by White Watch to Rosepark on 24th April 2002, and standing in for the Station Officer¹⁷⁴⁴.

44. The crew arrived at the front door on the upper level, introduced themselves, and walked through the home. They arrived by way of Rosepark Avenue. It was probably the driver of the appliance who would have made that decision¹⁷⁴⁵.

45. Mr Balmer was present at Rosepark but not involved in the visit itself, the purpose of which was to ensure that the details on the section 1(1)(d) records were accurate, and to give the Watch members a better idea of the layout of the premises than could a line drawing¹⁷⁴⁶. The plans were of the building were still of interest in pointing out the location of the water hydrants, and the gas and electrical shut-offs. Mr Muir would have understood the cross corridors to be fire doors¹⁷⁴⁷.

46. At a section 1(1)(d) visit, any matters raising fire safety concerns would be rectified on the spot, if they could be, which failing reported to the Fire Safety Department. There was no reason to think that there were any issues of concern on the visit to Rosepark¹⁷⁴⁸

47. Mr Muir agreed that the fullest use should be made of the information gathered through section 1(1)(d) work, its purpose being to make people conversant with the risk premises that they visit¹⁷⁴⁹.

¹⁷⁴² Michael Wilson, 5 February 2010, pm, pp41-42;

¹⁷⁴³ Michael Wilson, 5 February 2010, pm, p43;

¹⁷⁴⁴ James Muir, 8 February 2010, am, pp1-4;

¹⁷⁴⁵ Production 887I showed their arrival point; James Muir, 8 February 2010, am, pp7-11;

¹⁷⁴⁶ James Muir, 8 February 2010, am, pp12-13;

¹⁷⁴⁷ James Muir, 8 February 2010, am, pp15-17;

¹⁷⁴⁸ James Muir, 8 February 2010, am, pp18-20;

¹⁷⁴⁹ James Muir, 8 February 2010, am, pp24-25;

48. There was nothing in the section 1(1)(d) records indicating that Rosepark Avenue should be the preferred means of access¹⁷⁵⁰.

49. Mr Muir could not recall seeing gates in the driveway from New Edinburgh Road. If he had seen closed and locked gates he would not have taken any further action. It would not have affected the residents' means of escape, although it would have affected the means of access to the building. During the visit Mr Muir did not go down the driveway¹⁷⁵¹.

50. Mr Muir thought that the visit had lasted about 10 minutes¹⁷⁵².

51. Robert Deans served on Red Watch as a Station Officer at Bellshill Fire Station between 2001 and 2004¹⁷⁵³.

52. Mr Deans confirmed that there would be folders containing the section 1(1)(d) records onboard the Bellshill appliance¹⁷⁵⁴.

53. Normally a section 1(1)(d) visit would be arranged about one week in advance¹⁷⁵⁵.

54. Mr Deans identified the date that he visited Rosepark as being 3 July 2000. The section 1(1)(d) records show that there was a full crew visit and a re-inspection undertaken on that date. Mr Deans' view was that together they represented a "visitation rather than an inspection". There was a full crew attendance on that date and no change was called for in the records¹⁷⁵⁶.

55. When they attended on 3 July 2000 Miss Meaney at Rosepark to meet them. Mr Deans estimated that the visit may have lasted between 20 and 30 minutes¹⁷⁵⁷.

56. The visit would have followed the normal procedure, which was as follows. The officer in charge would explain to the person meeting the crew what the purpose of the visit was. The purpose was purely to familiarise the crew with the character of

¹⁷⁵⁰ James Muir, 8 February 2010, am, pp25-26;

¹⁷⁵¹ James Muir, 8 February 2010, am, pp27-28;

¹⁷⁵² James Muir, 8 February 2010, am, p7;

¹⁷⁵³ Robert Deans, 5 February 2010, pm, pp50-52;

¹⁷⁵⁴ Robert Deans, 5 February 2010, pm, pp52-53;

¹⁷⁵⁵ Robert Deans, 5 February 2010, pm, p53;

¹⁷⁵⁶ Robert Deans, 5 February 2010, pm, pp55-58;

¹⁷⁵⁷ Robert Deans, 5 February 2010, pm, p65;

the building. Mr Deans would give the section 1(1)(d) record to one of the other fire fighters to carry around. The crew would then look at the layout of the building. Any differences between what was observed and what was on the plan would be drawn to the attention of the staff¹⁷⁵⁸.

57. Access to and within the building was something that would be covered in the visit and any changes would be noted in the section 1(1)(d) records¹⁷⁵⁹.

58. If there was anything that stood out as being not right you would bring it to the attention of the representative of the home, even although the primary reason for being there was familiarisation¹⁷⁶⁰. Mr Deans appeared to recall that the corridor fire doors were closed although they visited during the day. No issue arose which might have merited a reference to the Fire Safety Department¹⁷⁶¹. As far as bedrooms were concerned, the visiting fire officers would see of the general layout corresponded with what was on the plan¹⁷⁶².

59. Matters of interest on the plan in the section 1(1)(d) records for Rosepark included the electrical intake and gas shut-off (so one knew where to shut the supplies down), the presence of the cross corridor doors, and the location of the bedrooms (where, during the night, the residents are going to be located)¹⁷⁶³.

60. Confirmation of any significant material changes would be sought from the person showing the fire officers around. It is probable that such confirmation was sought from Ms Meaney on the occasion of the visit in July 2003¹⁷⁶⁴.

61. Mr Deans assumed that the visit in July 2003 would have included the lower level as well as the upper level¹⁷⁶⁵. By reference to a police statement dated 19th February 2004, Mr Deans was able to confirm that the visit involved a walkthrough of the premises guided by Sadie Meaney. Amongst other things, Mr Deans was interested in the location of the fire alarm panel, to ensure that the zones of the alarm

¹⁷⁵⁸ Robert Deans, 5 February 2010, pm, pp59-62;

¹⁷⁵⁹ Robert Deans, 5 February 2010, pm, pp63-64;

¹⁷⁶⁰ Robert Deans, 5 February 2010, pm, pp66-67;

¹⁷⁶¹ Robert Deans, 5 February 2010, pm, p68;

¹⁷⁶² Robert Deans, 5 February 2010, pm, pp69-70;

¹⁷⁶³ Robert Deans, 5 February 2010, pm, pp71-72;

¹⁷⁶⁴ Robert Deans, 5 February 2010, pm, pp73-74;

¹⁷⁶⁵ Robert Deans, 5 February 2010, pm, pp75-76;

were clearly displayed at the alarm panel to assist fire fighters in the event of a fire. In that respect Mr Deans stated that after being met at the door the first thing he would do at an incident would be to go to the fire alarm panel¹⁷⁶⁶.

62. Mr Deans recalled being invited by Ms Meaney to view her records of fire safety training. He told her that that was not the purpose of the visit. Mr Deans did, however, state that although the visit was not an inspection he would have been vigilant for breaches of fire safety procedure. If there had been such breaches Mr Deans would have pointed them out to Ms Meaney and, if significant, he would have reported them to the Fire Safety Department. Mr Deans found no obvious breaches of fire safety, and no change in the layout of the building such as would have justified a new section 1(1)(d) form¹⁷⁶⁷.

63. On the matter of access Mr Deans and his crew arrived via Rosepark Avenue. This took them to the main entrance. They went by this route because of local knowledge amongst the crew¹⁷⁶⁸. Otherwise the plan in the section 1(1)(d) records did not direct a particular address and the inspection report¹⁷⁶⁹ referred to both New Edinburgh Road and Rosepark Avenue. Mr Deans was aware of the access from New Edinburgh Road. He did not examine it on the occasion of his visit. However, there were gates which Mr Deans remembered were shut¹⁷⁷⁰. Under reference to production 887B Mr Deans thought that this was the only occasion when he had ever seen the gates in the open position¹⁷⁷¹. Mr Deans did not remember the larger gates further up the drive. He would have been concerned about access if they had been locked¹⁷⁷²

64. The existence of gates on the drive from New Edinburgh Road was not a matter which Mr Deans would have raised with management because he there was an access via Rosepark Avenue¹⁷⁷³. Nor was any issue about access raised in a new section 1(1)(d) report. The result of the re-inspection on 3 July 2003 was “no change”.

¹⁷⁶⁶ Robert Deans, 5 February 2010, pm, pp79-83;

¹⁷⁶⁷ Robert Deans, 5 February 2010, pm, pp83-84;

¹⁷⁶⁸ Robert Deans, 5 February 2010, pm, p91;

¹⁷⁶⁹ Production 182, p4; Robert Deans, 5 February 2010, pm, p92;

¹⁷⁷⁰ Robert Deans, 5 February 2010, pm, p89;

¹⁷⁷¹ Robert Deans, 5 February 2010, pm, p92;

¹⁷⁷² Robert Deans, 5 February 2010, pm, p95;

¹⁷⁷³ Robert Deans, 5 February 2010, pm, p93;

Concluding observations

65. The purpose of the section 1(1)(d) visits was to familiarise fire fighters with local premises deemed to merit such familiarisation.

66. To the extent that there was any “inspection” of the premises it was confined to (i) an exercise of confirmation that the section 1(1)(d) records held on any particular premises were up to date; (ii) updating the section 1(1)(d) records to reflect any material changes in circumstances, and (iii) rectifying any breaches in matters of fire safety, or referring them to the Fire Safety Department, where the existence of such breaches were obvious to those taking part in the visit.

67. The guidance contained in OTN A6 enjoined fire fighters to have regard to the issue of access to section 1(1)(d) premises. No issues of concern about access at Rosepark appear to have arisen in the minds of any of the officers who gave evidence to the Inquiry. At the most recent visit before the fire Mr Deans recalled observing closed gates at the bottom of the driveway leading from and to New Edinburgh Road. His recollection is consistent with the evidence of Thomas Balmer to the effect that the gates down at New Edinburgh Road had always been kept shut (and locked) to deter unwanted pedestrian access¹⁷⁷⁴.

68. Mr Deans did not consider that the presence of gates on the driveway from, and to, New Edinburgh Road would have caused him to raise the matter of access with the management of Rosepark. This was because of the existence of access via Rosepark Avenue.

69. It would have been beneficial to have resolved the question of access at that time. Although the Rosepark Avenue route was upgraded at some point during the first few months of 2003, that was to enhance access for a new building that was in contemplation. The existing access had been adequate¹⁷⁷⁵. It is apparent from the section 1(1)(d) records that the Rosepark Avenue entrance had been noted¹⁷⁷⁶ but no steps had been taken to prove whether it was possible to reach the front door from the New Edinburgh Road access. The matter of which was the more appropriate access was left unresolved.

¹⁷⁷⁴ Thomas Balmer, 6 May 2010, pm, p2; 11 May 2010, am, pp21-30;

¹⁷⁷⁵ Thomas Balmer, 11 May 2010, p20;

¹⁷⁷⁶ Production 182, p4;

70. The familiarisation reports under section (1)(1)(d) did not record that Rosepark Avenue was the preferred access. The evidence of the section (1)(1)(d) visits appear to indicate that access was obtained during these visits via Rosepark Avenue. No issue of access was flagged up in the reports. This is likely to have been because officers attending these visits were already aware that access was by Rosepark Avenue.

71. The last visit to Rosepark Nursing Home by Blue Watch was on 19 August 1999. Only one of the fire fighters in the Bellshill appliance had been to Rosepark before, and he could not recall anything about access. None of the fire fighters had any knowledge of access. They were aware that Rosepark Avenue was in New Edinburgh Road and it was for that reason that they attended the New Edinburgh Road entrance. In addition, New Edinburgh Road was the address given in the turnout slip. Although the turnout slip also stated “enter by Rosepark Gardens” the information was not immediately adjacent to the address of the property.

72. Had Rosepark been the subject of annual section 1(1)(d) visits by each Watch, it is probable that the crew on EO31 would have known that the most appropriate access to Rosepark Care Home was by Rosepark Avenue.

73. The appliance EO31 attended at New Edinburgh Road at 0442.12 in respect of the 999 call. Fire Fighters Campbell and Buick went into the home by that route, having had to climb over two sets of locked gates. They entered the Home at 0444.26.

74. One of the remaining fire fighters broke the lock in the gate onto New Edinburgh Road and positioned the appliance in the car park awaiting instructions.

75. The driver, Paul Caldwell, had noted that the access road at the south of the building looked tight. He referred to an overhang and the fact that there were ladders on the top of the fire engine.

76. Fire Fighter Buick left Rosepark at approximately 0447.30 and returned to EO31, having run down the side of the building and vaulted the gate at the top of the access road. He told the crew “persons reported – there is a better entrance at Rosepark Avenue ... from Fallside” (Paul Caldwell 7 December pm 122). Fire Fighter Buick explained “I thought at the time that it would be better that it came

round to the other door” (7 December am 39). Fire Fighter Caldwell immediately drove appliance EO31 to the Rosepark Avenue entrance. It arrived at 0449.37.

77. The time taken from Fire Fighter Buick leaving EO31 at New Edinburgh Road and his arriving in the Home was 2 minutes 14 seconds. The time from him leaving the Home, returning to the appliance at New Edinburgh Road and the appliance arriving at the Rosepark Avenue entrance was 2 minutes 11 seconds. The time lost as a result of EO31 attending at New Edinburgh Road was 4 minutes 25 seconds.

78. As is evidenced by the comments of Fire Fighter Buick to Fire Fighter Caldwell when he returned to the vehicle which was stationed at the New Edinburgh Road entrance, Rosepark Avenue was the better for vehicular access. Familiarity with the premises resulted in watches who attended Rosepark in 2002 and 2003 attending via Rosepark Avenue.

79. While it cannot be guaranteed that annual visits to Rosepark would have had the consequence that members of Blue Watch on 31 January 2004 would have known to go to Rosepark Avenue (as did Red Watch in July 2003) it is probable that they would have known that Rosepark Avenue was the better entrance and would have attended there.

80. A familiarisation visit was not a fire safety inspection in disguise. Operational personnel who went on familiarisation visits were not trained to carry out fire safety checks¹⁷⁷⁷.

81. Section 1(1)(d) was concerned with information required for fire-fighting purposes. Its purpose was exactly in accordance with the understanding of Mr Lynch of Lanarkshire Health Board:

“That would be [where] a fire appliance and its crew visit an establishment and walk round looking for fire hydrants...getting familiar with the building...familiarisation for themselves without any paperwork requirements. Purely a familiarisation visit on their part”¹⁷⁷⁸

82. It follows that any assumption on the part of Lanarkshire Health Board that Strathclyde Fire and Rescue Service were undertaking a regular and more rigorous form of inspection of fire precautions in nursing, or care, homes was mistaken¹⁷⁷⁹.

¹⁷⁷⁷ Hugh Adie, 29 June 2010, pm, p60;

¹⁷⁷⁸ Thomas Lynch, 4 March 2010, pm, p12;

Risk Catagorisation of Rosepark

1. On 27th December 2000, an operational fire fighter, Mr Edward Kelly, visited Rosepark¹⁷⁸⁰.
2. Mr Kelly was on alternate duties at the time, having sustained a knee injury. He was undertaking risk assessments at premises such as nursing homes and small hotels. The details of the assessments were noted down from observations made by Mr Kelly on a document called an ORA/1¹⁷⁸¹.
3. Mr Kelly did not know the purpose of this risk assessment exercise. He was simply asked to go and do them as part of his alternate duties. Otherwise he would not have been involved in such tasks¹⁷⁸². Brian Sweeney defined the task as re-advising the risk of the premises and advise the information that would be contained on the VMDS which was introduced in 2001¹⁷⁸³
4. Mr Kelly returned the paperwork that he prepared to someone in Hamilton Headquarters called Murdo Macleod to feed into computers. Mr Kelly thought that this was part of a process of building up a dossier of material on different places, ultimately for the VMDS system¹⁷⁸⁴.
5. Mr Kelly's training for the exercise of gathering information involved going out with another officer, possibly Eddie Ramsay, for a couple of days. There was no formal training¹⁷⁸⁵.
6. The Risk Assessment Form completed by Rosepark was production 1089. On page 2 (manuscript) of the ORA/1 it was confirmed that Rosepark fell within the station area of Bellshill¹⁷⁸⁶.
7. On the same page 2, Mr Kelly had placed a tick in the box for "B" at the section concerning "Risk Category". Mr Kelly did so because the risk categories went from

¹⁷⁷⁹ Cf Thomas Lynch, 4 March 2010, pm, pp12-13;

¹⁷⁸⁰ Edward Kelly, 10 February 2010, pm, pp47-48;

¹⁷⁸¹ Edward Kelly, 10 February 2010, pm, pp49-50;

¹⁷⁸² Edward Kelly, 10 February 2010, pm, p51;

¹⁷⁸³ Brian Sweeney, 12 July 2010, am, pp94-96;

¹⁷⁸⁴ Edward Kelly, 10 February 2010, pm, pp52-54; Brian Sweeney, 12 July 2010, am, p62;

¹⁷⁸⁵ Edward Kelly, 10 February 2010, pm, pp54-55;

¹⁷⁸⁶ Edward Kelly, 10 February 2010, pm, p56;

high to low. Mr Kelly took the view that due to the amount of people who would need assistance in an evacuation the category should be “pretty high”. Accordingly he ticked “B”¹⁷⁸⁷.

8. Mr Kelly understood that “A” related to highly volatile places like large factories, where chemicals and cylinders were stored, and petroleum places. “D” related to small places like ships and rural areas. Mr Kelly did not know whether his choice of category would have any implications for Fire Service coverage. His personal view was that he would have preferred a 3 to a 2 pump attendance at nursing homes. Mr Kelly did not, however, know whether that would be the effect of ticking “B” on the ORA/1¹⁷⁸⁸. He chose “B” because there was a lot life risk involved in a nursing home¹⁷⁸⁹.

9. Mr Kelly confirmed, by reference to the Report of the Joint Committee on Standards of Fire Cover, 1985¹⁷⁹⁰, that pre-determined attendance for categories A, B, C and D were, respectively, 3, 2, 1 and 1, there being certain targets in terms of how quickly appliances were required to attend¹⁷⁹¹.

10. Mr Kelly knew how to categorise premises from his general experience as a fire fighter rather than by reference to any guidance¹⁷⁹².

11. In the result, Mr Kelly’s assessment of an enhanced attendance was proved correct by reference to the grading criteria contained in “Revised and Consolidated Guidance on the Categorisation of Risk”¹⁷⁹³. The result of applying those criteria brought about a PDA of 2, which was the same as a PDA for an area categorised as B¹⁷⁹⁴. The surrounding area was category C¹⁷⁹⁵. Accordingly there was an enhanced PDA for Rosepark of two appliances¹⁷⁹⁶.

¹⁷⁸⁷ Edward Kelly, 10 February 2010, pm, p57

¹⁷⁸⁸ Edward Kelly, 10 February 2010, pm, pp58-63;

¹⁷⁸⁹ Edward Kelly, 10 February 2010, pm, pp66-67;

¹⁷⁹⁰ Production 1956, p6;

¹⁷⁹¹ Edward Kelly, 10 February 2010, pm, pp82-83;

¹⁷⁹² Edward Kelly, 10 February 2010, pm, pp72-73;

¹⁷⁹³ Production 1957, pp32, 37

¹⁷⁹⁴ Edward Kelly, 11 February 2010, am, pp56-63

¹⁷⁹⁵ Victoria Neill, 4 December 2009, am, p82;

¹⁷⁹⁶ See explanation of Sir Graham Meldrum, 3 August 2010, am, pp48-54; 6 August 2010, am, pp63-67;

12. In section 1 of the ORA/1 Mr Kelly entered “2” for the pre-determined attendance for Rosepark. That was just information he had as an operational fire fighter¹⁷⁹⁷. In section 2(g) (page 5) Mr Kelly confirmed that he had identified the protected doors and corridors at Rosepark. In section 2(j) fire loading was entered as “low” but Mr Kelly was unsure what this meant¹⁷⁹⁸.

13. Mr Kelly looked during his visit for the presence of fire doors, extinguishers and hose reels¹⁷⁹⁹.

14. At section 4.1 “Access” Mr Kelly ticked “yes” to the question “*Can full PDA gain easy access to the site?*”¹⁸⁰⁰. Mr Kelly’s assessment would be based on a visual assessment that there was plenty room for the appliances to get in. If there was a way they could not get in then that would have been noted down on the form. Mr Kelly noted “foot only to rear” of the building¹⁸⁰¹.

15. Mr Kelly had difficulty recollecting by which route he had accessed the main entrance and to what part of the premises the note related. The address he noted on the ORA/1 was New Edinburgh Road. That was information he obtained from the staff¹⁸⁰². Ultimately, his position appeared to be that the rear was the garden area to the left of the premises in production 887B¹⁸⁰³. He thought that two appliances could get up the driveway but he would need to have paced out the ground to be sure. Mr Kelly could not recall if he did this. He did not notice any gates¹⁸⁰⁴.

16. Mr Kelly also considered there to be a disorientation potential (primarily for residents) due to the “complexity” of the premises¹⁸⁰⁵.

17. On page 17 of the ORA/1 Mr Kelly made reference to the maximum and minimum sleeping risks (43 and 40 respectively)¹⁸⁰⁶.

¹⁷⁹⁷ Edward Kelly, 10 February 2010, pm, pp85-87;

¹⁷⁹⁸ Edward Kelly, 10 February 2010, pm, pp92-94;

¹⁷⁹⁹ Edward Kelly, 10 February 2010, pm, p97

¹⁸⁰⁰ Edward Kelly, 10 February 2010, pm, p102

¹⁸⁰¹ Edward Kelly, 10 February 2010, pm, p106;

¹⁸⁰² Edward Kelly, 11 February 2010, am, pp47-53

¹⁸⁰³ Edward Kelly, 11 February 2010, am, p85;

¹⁸⁰⁴ Edward Kelly, 11 February 2010, am, pp92-94;

¹⁸⁰⁵ Edward Kelly, 10 February 2010, pm, pp109-110;

¹⁸⁰⁶ Edward Kelly, 11 February 2010, am, pp5-6;

18. Mr Kelly had heard of, but was not familiar with, the guidance contained OTN A6, and in particular the reference in paragraph 3.2 to “special risk” premises (as defined in paragraph 5.2.4). Mr Kelly was not aware that there was a category of special risk premises as defined in OTN A6¹⁸⁰⁷.

19. Mr Kelly recalled “Operational Technical Note, Index Number A83, Operational Risk Information”, issued April 2001. Section 4 was concerned with processing information. It provided that the information gleaned from the assessment was collated within the Risk Management Unit of SF&R and placed on a database¹⁸⁰⁸. Mr Kelly agreed that his exercise at Rosepark formed part of the process of review of section 1(1)(d) information as set out on page 3 of production 1409, and that the information would end up in the VMDS system¹⁸⁰⁹.

20. The risk assessment exercise in December 2000 provided an opportunity to categorise Rosepark as “special risk” for the purposes of securing an annual familiarization visit by each Watch at Bellshill¹⁸¹⁰.

21. Sir Graham Meldrum gave evidence to the Inquiry under reference to the ORA/1 completed by Mr Kelly, and associated guidance.

22. In his opinion the guidance in production 1409, OTN A83, placed insufficient weight on the life risk at Rosepark, and in particular the sleeping non-ambulant risk¹⁸¹¹.

23. The information about non-mobile and sleeping risks, and employee numbers contained in page 17 of the ORA/1 should not have produced the result that Rosepark was considered a low risk building. The possibility of 43 non-mobile people ought to have been a weighting factor that needed to be taken into consideration when allocating a risk rating¹⁸¹².

¹⁸⁰⁷ Edward Kelly, 11 February 2010, am, pp21-25

¹⁸⁰⁸ See also Brian Sweeney, 12 July 2010, am, p67;

¹⁸⁰⁹ Production 1409; Edward Kelly, 11 February 2010, am, pp29-36;

¹⁸¹⁰ Sir Graham Meldrum, 3 August 2010, am, p61;

¹⁸¹¹ Sir Graham Meldrum, 3 August 2010, am, pp38-44; 54-55;

¹⁸¹² Sir Graham Meldrum, 3 August 2010, am, pp46-47;

24. With the possibility of having to evacuate 43 non-ambulant people at night, with only 4 staff on duty, it was difficult to see how Rosepark could have been considered low risk. Although SF&R' approach to selecting a PDA of 2 could not be criticised¹⁸¹³, he opined that Rosepark should have been regarded, for the purposes of paragraph 5.2.4 of OTN A6 as “special risk”. In that subsection “special risk” is designed as “Special risks can be defined as those which need a first attendance over and above that appropriate to the risk which predominates in the surrounding area. Such as: (i) residential care premises of substantial size presenting abnormal risks to life or property ...”. Where there were upwards of 40 residents in a care home, Sir Graham Meldrum’s opinion was that that constituted “large” for the purposes of the guidance. His opinion was based on the number of residents, the number of staff on duty at night, and the degree to which some residents would need great assistance in the event of an evacuation¹⁸¹⁴.

25. The main effect of designation of Rosepark as “special risk” would have been in relation to the frequency of familiarisation visits. There would be an annual visit by each Watch¹⁸¹⁵.

26. As matters transpired, the last occasion on which Blue Watch at Bellshill Fire Station was recorded as having attended at Rosepark for a visit was 19 August 1999, in excess of four years before the fire¹⁸¹⁶. Blue Watch last attended a lecture concerning Rosepark on 8 February 1998¹⁸¹⁷. There was no record of a lecture about Rosepark to any of the watches at Bellshill after 18 February 2000¹⁸¹⁸.

27. The more appropriate route for vehicular access was Rosepark Avenue. This was recognised by Fire Fighter Buick when he was first to attend Rosepark on the night of the fire. It was he who decided there was a better access via Rosepark Avenue and directed EO31 to go there from New Edinburgh Road.

¹⁸¹³ Sir Graham Meldrum, 3 August 2010, am, pp53-54;

¹⁸¹⁴ Sir Graham Meldrum, 3 August 2010, am, pp58-61;

¹⁸¹⁵ Sir Graham Meldrum, 3 August 2010, am, pp61-64;

¹⁸¹⁶ Production 182, page 3; Sir Graham Meldrum, 3 August 2010, am, pp66-67;

¹⁸¹⁷ Ian Falconer, 5 February 2020, am, p21;

¹⁸¹⁸ Robert Deans, 5 February 2010, pm, p34;

28. If Rosepark had been the subject of annual re-inspection it is likely that the crew of the Bellshill appliance would have been familiar with the access to the building¹⁸¹⁹.

29. Mr Falconer, Mr Muir and Mr Deans all spoke to arriving via Rosepark Avenue for their section 1(1)(d) visits. It is highly instructive that Mr Deans spoke to that having transpired on account of “local knowledge” of the crew¹⁸²⁰

30. Rosepark would not, according to Jeff Ord, have been considered a special risk for section 1(1)(d) purposes¹⁸²¹. The sorts of matters that would be considered relevant to an assessment about “special risk” were the type of construction of the building, the size of the building, the processes, whether any business conducted there was of a hazardous nature, and whether the building was high or low rise¹⁸²².

31. The track record of individual premises, the size, type of construction, fire detection equipment, CCTV and whether or not the premises were staffed 24 hours a day were all relevant considerations¹⁸²³. Historically, nursing homes were not thought to be at high risk of fire¹⁸²⁴

32. Brian Sweeney had personal experience of the processes of risk assessment and risk categorization under section 1(1)(d). In 1993/4 he initiated a review of the information on premises held by SF&R, leading to the creation of the Risk Management Unit and the VMDS system¹⁸²⁵.

33. According to Mr Sweeney, each Watch would attend a section 1(1)(d) building once every 4 years. There would be one lecture for each Watch annually¹⁸²⁶.

34. The Divisional Commander would have had responsibility for defining buildings in his area which were deemed to be of significant risk to justify inclusion in the section 1(1)(d) premises to be visited¹⁸²⁷.

¹⁸¹⁹ Sir Graham Meldrum, 3 August 2010, am, pp80-82;

¹⁸²⁰ Robert Deans, 5 February 2010, pm, p91;

¹⁸²¹ Jeff Ord, 1 July 2010, pm, pp88-89;

¹⁸²² Jeff Ord, 1 July 2010, pm, p88;

¹⁸²³ Jeff Ord, 1 July 2010, pm, pp89-90;

¹⁸²⁴ Jeff Ord, 1 July 2010, pm, 72-74; 2 July 2010, am, pp3, 20-22;

¹⁸²⁵ Brian Sweeney, 12 July 2010, am, pp25-26;

¹⁸²⁶ Brian Sweeney, 12 July 2010, am, p27;

¹⁸²⁷ Brian Sweeney, 12 July 2010, am, pp33-34;

35. Mr Sweeney thought that the premises which came under section 1(1)(d) were premises which posed a significant risk to fire fighters¹⁸²⁸ only (as opposed to persons occupying or resorting there). The statutory basis for that understanding is unclear. He accepted that the definition of “special risk” in OTN A6 was broader and encompassed risk to property and persons other than just the attending fire fighters¹⁸²⁹.

36. The guidance in OTN A6 afforded the facility to define particular premises as “special risk” without altering the risk categorisation of the surrounding area¹⁸³⁰. Rosepark attracted a PDA in excess of the one appliance which would be normal in the surrounding category C area¹⁸³¹.

37. Under reference to OTN A6 Mr Sweeney’s evidence was that there were two parts to the assessment of a care home as “special risk”; (i) was it a large residential care home (and that should be considered in context), and (ii) were the risks abnormal (which introduces an element of the subjective to the exercise)¹⁸³².

38. In Mr Sweeney’s view Rosepark would correctly be described as a medium sized care home. In Strathclyde there were about 220 homes which were either the same size, or larger than Rosepark. Forty of them were double Rosepark’s size. The risks presented by Rosepark could be considered as “normal and consistent”. The definition of “special risk” was open to interpretation. By defining Rosepark as “special risk” would be the equivalent of adding to the existing 100 high risk premises 223 care homes. Mr Sweeney did not professionally disagree with Sir Graham Meldrum on whether Rosepark should have been designated “special risk”. But it was a matter of subjective judgement¹⁸³³.

39. A consideration in determining whether a building should be “special risk” or not was the life risk to whoever may be on the premises¹⁸³⁴.

¹⁸²⁸ Brian Sweeney, 12 July 2010, am, pp34-38

¹⁸²⁹ Brian Sweeney, 12 July 2010, am, pp41-42;

¹⁸³⁰ Brian Sweeney, 12 July 2010, am, pp42-43;

¹⁸³¹ Brian Sweeney, 12 July 2010, am, pp44-48; cf production 206, p4, “ADDRISKCAT” at 0438 hours;

¹⁸³² Brian Sweeney, 12 July 2010, am, pp82-85;

¹⁸³³ Brian Sweeney, 12 July 2010, am, pp112-118;

¹⁸³⁴ Brian Sweeney, 12 July 2010, am, pp120-121;

40. The attendance of two appliances at the time was not criticised by Sir Graham Meldrum. He acknowledged that the evidence was that at the time of the fire a pre-determined attendance of two appliances was normal for premises like Rosepark and that level of attendance was itself enhanced when compared with the surrounding area¹⁸³⁵.

41. SF&R have, as a result of Rosepark and other residential care home fires, designated, in terms of OTN A124, residential care homes for an initial attendance of three appliances and a section (1)(1)(d) visit by each watch annually. This is because of the possibility of elderly people being under the care of a small number of staff at night, where many, if not all of whom would need assistance in the event of evacuation. As was stated by Sir Graham Meldrum "...when you're talking about care homes, the risk is ... related to the time taken to evacuate that building should a fire occur in it, not to say it's a high risk of fire itself, but if a fire takes place, it's a higher risk"¹⁸³⁶. He agreed that the definition of a large care home was a matter of local interpretation. His view that what was important was that consideration was given to the type of resident, the type of building, and the amount of staff on duty.

42. With the benefit of hindsight and the evidence led at this Inquiry, it appears to me that it would have been a reasonable precaution for SF&R to have classified Rosepark as "special risk" under Operational Technical Note Index A6, such that each watch at Bellshill Fire Station made an annual familiarisation visit. In this case Blue Watch, fortified by an annual familiarisation visit, would probably have known that the most appropriate access for fire fighting purposes would have been by Rosepark Avenue.

¹⁸³⁵ See "Risk Catagorisation", para. 12, supra.

¹⁸³⁶ Sir Graham Meldrum, 6 August 2010, am, p163;

Note to Chapter 25

As far as the submissions on behalf of SF&R are concerned, in view of the evidence of Fire Fighter Buick at Rosepark on the night of the fire, I do not think it can reasonably be argued that access via Rosepark Avenue and by New Edinburgh Road were equivalent. He attended on an operational occasion at New Edinburgh Road. Having viewed the locus his conclusion was “There is a better entrance via Rosepark Avenue”. It would no doubt have been possible to commence fire fighting operations by taking the appliance up the lane at the side of Rosepark from New Edinburgh Road. However it was Fire Fighter Buick’s view that better access was by Rosepark Avenue and he instructed the appliance accordingly. I have considered the Crown submission that it would have been a reasonable precaution for each watch to have visited Rosepark annually in view of the risk to non ambulant residents in the event of fire. I deal with that at Chapter 44(5) hereof. It is sufficient at this stage to say that the advantage of an annual familiarisation visit to residential care homes has now been recognised and put into practice by SF&R. It could have been achieved at the time by categorising the premises as “special risk” in terms of OTN A6.

I must emphasise that I reach this conclusion with the benefit of hindsight. I accept the evidence which was led that there should be no criticism of SF&R’s failure to categorise Rosepark as “special risk” in light of the state of knowledge at the time of the fire. In particular I appreciate that within the United Kingdom there have been no previous incidents of a care home fire involving multiple fatalities. This sadly is not the case at this date.

CHAPTER 26: THE INTERACTION BETWEEN ROSEPARK AND LANARKSHIRE HEALTH BOARD (“the Health Board”) 1992-2002

The purpose of this chapter is to provide a detailed factual narrative of the interaction between Rosepark and the Health Board between 1992 and 2002 (after which the Health Board ceased to have any regulatory responsibilities for nursing homes). It will examine the statutory, and non-statutory, framework under which the Health Board operated; consider, and draw conclusions from, the approach of the Health Board to compliance with its statutory responsibilities, and summarises the inspection history of Rosepark.

The narrative in this chapter sets out the background for the determination I have made under section 6(1)(d) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 set out in DS5 of my findings.

1. Statutory Framework

Nursing Homes Registration (Scotland) Act 1938

1. Section 1 of the **Nursing Homes Registration (Scotland) Act 1938**¹⁸³⁷ (“the 1938 Act”) established the involvement of local Health Boards in the process of registration of private nursing homes.
2. Section 1(1) of the 1938 Act made it an offence to carry on a nursing home without being duly registered.
3. Section 1(1A) of the 1938 Act made it an offence to carry on a nursing home in contravention of a condition of registration.
4. Section 1(2) of the 1938 Act provided that application for registration was to be made in writing to the Health Board in whose area the home was situated.

¹⁸³⁷ Production 1927;

5. Section 1(3) of the 1938 Act provided for registration by the Health Board and certain grounds upon which the Health Board could refuse registration.

6. Section 1(3D) of the 1938 Act provided that “[I]t shall be a condition of registration of any person in respect of a nursing home that the number of persons kept at any one time in the home...does not exceed such number as may be specified in the certificate of registration.”

7. Section 1(3F) of the 1938 Act conferred on the Health Board the power to vary any condition of registration (including a condition relating to the number of persons kept on the premises).

8. Section 1(4) of the 1938 Act provided for the public display of the certificate of registration in a conspicuous place in the home.

9. Section 2(1) of the 1938 Act provided *inter alia* that “[S]ubject as provided in this Act the Health Board may by order at any time cancel the registration of a person in respect of any nursing home on any ground which would entitle them to refuse an application for the registration of that person in respect of that home...”.

10. Section 3A made provision for the conduct and inspection of nursing homes. Thus it provided that “[T]he Secretary of State may make Regulations

(a) as to the conduct of nursing homes;

(b) with respect to entry into and the inspection of premises used or reasonably believed to be used as a nursing home;

(c) with respect to the production and inspection of records required to be kept under this Act,

and Regulations made under paragraph (a) above may include provisions as to the facilities and services to be provided in nursing homes.”

11. Further provision in respect of Regulations was made in section 4, in particular with regard to the content of records to be kept by nursing homes.

12. Section 10(2) of the 1938 Act, so far as relevant, defined “nursing home” as “any premises used, or intended to be used, for the reception of, and the provision of nursing for, persons suffering from any sickness, injury or infirmity.”

13. The exclusions from the definition of “nursing home” in section 10(3) of the 1938 Act plainly do not apply to Rosepark.

14. Rosepark was a “nursing home” within the meaning of section 10(2) of the 1938 Act and underwent the process of registration accordingly.

Nursing Homes Registration (Scotland) Regulations 1990

15. The Regulations current at the time when Rosepark opened for business were the **Nursing Homes Registration (Scotland) Regulations 1990**¹⁸³⁸ (“the 1990 Regulations”). They came into force on 27th July 1990¹⁸³⁹.

16. The 1990 Regulations were made pursuant to *inter alia* sections 3A and 4 of the 1938 Act.

17. Regulation 1(2) contained certain relevant definitions. Thus:

“**authorised person**” meant any person, who in the opinion of the Health Board was suitably qualified to undertake any inspection for the purposes of Regulations 11 and 12 of the 1990 Regulations¹⁸⁴⁰;

¹⁸³⁸ Production 1899;

¹⁸³⁹ Production 1899, Regulation 1(1);

¹⁸⁴⁰ Production 1899, Regulation 11(1);

“**fire authority**”, in relation to a nursing home, meant the Health Board for the area in which the nursing home named in the application was situated;

“**nursing home**” was defined by reference to section 10(2) of the 1938 Act;

“**person in charge**” meant, so far as relevant to Rosepark, a qualified nurse upon whom had been conferred by the person registered responsibility for the overall day-to-day running of the nursing home¹⁸⁴¹;

“**person registered**” meant the person registered under the 1938 Act as carrying on the nursing home named in the application for registration;

“**record**” meant any book, card, form, tape, x-ray, computerized document, film or note kept pursuant to the requirements of the 1990 Regulations;

“**register**” meant an ordered collection of details prepared and maintained in accordance with the 1990 Regulations (which may have included one or more parts).

18. Regulation 2 confirmed that an application for registration required to be submitted to the Health Board in the required form.

19. Regulation 8 was concerned with fire safety and equipment maintenance records. It is worthy of quotation in full:

“(1) The **person registered** shall maintain or cause to be maintained a record of-

- (a) every fire practice which takes place at the nursing home;
- (b) every fire alarm test carried out at a nursing home together with the result of that test, and all defects in procedure or equipment or conditions found as a result of every such test;
- (c) action taken to remedy any of the said defects, and dates of completion of works resulting from such action; and
- (d) procedures to be followed in the event of fire.

(2)The **person registered** shall maintain or cause to be maintained with respect to medical, surgical, nursing, fire and safety equipment in the nursing home such record, as is reasonable or appropriate in the circumstances, of dates of acquisition and of disposal of, condition at acquisition of, and dates of maintenance checks and the nature of repairs carried out on, such equipment.

¹⁸⁴¹ Production 1899, Regulation 10(1);

(3) Each of the records maintained in pursuance of paragraph (1) or (2) shall be retained at the nursing home by the person currently registered for a minimum period of 3 years from the date of the last entry in it.”

20. Regulation 10 made provision for the appointment of a “**person in charge**”.
21. Regulation 11 of the 1990 Regulations made provision for the appointment of “**authorised persons**”. Regulation 11(2) conferred, on such authorised persons, powers of entry and inspection in respect of nursing homes, and also power to require the production for inspection of records maintained in accordance with the 1990 Regulations.
22. Regulation 12 of the 1990 Regulations made provision for (at least) twice yearly inspections of registered nursing homes.
23. Regulation 13(1) of the 1990 Regulations was in the following terms:
- “(1) In respect of a nursing home which is registered under the Act, the facilities provided, precautions taken and arrangements made, all as described in this Regulation, *shall be of a standard which the Health Board reasonably considers to be sufficient and suitable in the circumstances of the particular nursing home, which standard shall be maintained for so long as the registration remains in force*”
24. Regulation 13(2) provided *inter alia* as follows:
- “The **person registered** shall...provide or make, as the case may be, to an adequate standard or level or number the following:-
- (e) Fire fighting equipment...
 - (h) means of escape in the event of fire:
 - (i) fire drills and practices so that the staff and, so far as practicable, the patients in the home know the procedures to be followed in case of fire;
 - (j) permanently displayed notices explaining procedures in the event of fire...”
25. Regulation 13(3) provided *inter alia* as follows:
- “The **person registered** shall...

- (a) take precautions-
 - (i) against the risk of fire;
 - (ii) against the risk of accident;
- (b) make adequate arrangements for detecting, containing and extinguishing fire, for the giving of warnings and for the evacuation of patients and staff in the event of fire.”

26. Regulation 13(4) (f) of the 1990 Regulations obliged the **person registered**, at such times as may be agreed with the fire authority, to consult that authority on fire precautions in the home.

2. *Relevant Non-Statutory Guidance*

The Nursing Homes Scotland Core Standards¹⁸⁴²

27. The Nursing Homes Scotland Core Standards were produced in about July 1997¹⁸⁴³.

28. Section 2 set out procedures which Health Boards would follow in undertaking inspection visits to registered nursing homes¹⁸⁴⁴.

29. Under the heading “Safety and Security” the Core Standards provided as follows:

“2.10 The Inspectors will:

-Ensure that security and safety measures are in place to meet the assessed needs of individual residents and staff.

- Examine fire notices, fire-fighting equipment and fire exits and escapes. If they are in any doubt about these items or any related aspect the Firemaster will be asked to visit as a matter of urgency and submit a report to the Board. The person registered or the person in charge will be

¹⁸⁴² Production 1395; and see Thomas Lynch, 4 March 2010, pm, pp26-31; Margaret MacCallum, 3 March 2010, pp2-4;

¹⁸⁴³ Thomas Lynch, 4 March 2003, pm, pp19-20;

¹⁸⁴⁴ Production 1395, page 27;

advised of this fact and will receive a copy of the report. The person registered will be required to implement the Firemaster's recommendations.

-Examine arrangements for storing flammable materials and explosive gases.

-Examine that systems are in place to fulfil compliance with all duties imposed on Homes by the Health & Safety legislation and the Health and Safety Executive.

-Examine arrangements for the evacuation of the home and provision of adequate short and long term emergency accommodation.

2.11 The Inspectors will also examine the following documents:

-Register of fire training, fire practices, alarms and fire procedures and the fire safety equipment maintenance record;

-Accident and incident records (staff, residents and visitors)."

The Registration and Inspection of Nursing Homes for the Elderly¹⁸⁴⁵

30. Lanarkshire Health Board issued guidance notes in about June 1999 entitled "The Registration and Inspection of Nursing Homes"¹⁸⁴⁶.

31. According to Margaret MacCallum, the guidance notes (and the Core Standards quoted above) were the main reference works used by the inspectors¹⁸⁴⁷.

32. Section 12.15-12.21 was concerned with "Safety and Security". It was in essentially the same terms as sections 2.10 and 2.11 of the Core Standards set out above.

33. Section 16 of the Guidance Notes was concerned with fire safety¹⁸⁴⁸. The Guidance was in the following terms:

¹⁸⁴⁵ Production 256; and see Thomas Lynch, 4 March 2010, pm, pp35-

¹⁸⁴⁶ Production 256; Thomas Lynch, 4 March 2010, pm, pp35-44;

¹⁸⁴⁷ Margaret MacCallum, 3 March 2010, am, pp6-7;

¹⁸⁴⁸ Production 256, p39 (manuscript);

“16.1 Regulation 13(3)(a)(i) [of the 1990 Regulations] requires the person registered to take precautions against the risk of fire and Regulation 13(3)(b) requires the person registered to make adequate arrangements for detecting, containing and extinguishing fire, for the giving of warnings and for the evacuation of residents and staff in the event of fire.

16.2 Prior to the opening of the nursing home, staff should receive comprehensive training in fire safety and thereafter, attend at least one programme of training annually. Fire drills should be carried out on a regular basis but certainly once every twelve months. Staff training can be arranged with local Fire Prevention Officers, Records of all training lectures and drills should be kept, with each staff member present signing the record.

16.3 A log book must be maintained of alarm tests, which should be undertaken weekly by testing individual alarm points, and of monthly emergency lighting tests.

16.4 Fire fighting equipment must be checked and serviced at least annually, and records maintained.

16.5 Permanently displayed notices explaining procedures in the event of fire should be distributed throughout the home, particularly in public areas and in staff areas.

16.6 Any incidence of fire must be reported to the Health Board without delay.”

3. Composition of the Health Board Inspection Team

34. Rosepark was one of about 55 private nursing homes which fell within the inspection jurisdiction of the Health Board¹⁸⁴⁹.

35. Generally, the Health Board inspection team was made up of three individuals. One member had a nursing background. Another member was concerned with pharmaceutical matters. The third member of the team was an administrator¹⁸⁵⁰.

36. Throughout the period from the opening of Rosepark to April 2002 the Health Board, and its inspectors, had access to the advice of an Area Fire Safety Officer. This was principally Lance Blair, who took up his position with the occupational

¹⁸⁴⁹ Thomas Lynch, 4 March 2010, am, p82;

¹⁸⁵⁰ Mairi Macleod, 25 February 2010, am, pp110-111; Edward Hattie, 26 February 2010, am, pp83-84; Margaret MacCallum, 2 March 2010, pm, pp12-14;

health and safety service known as SALUS in 1981 and remained there until 2002¹⁸⁵¹. He was succeeded by Andrew Walker¹⁸⁵².

37. The inspectors did not receive any specific training in what they should be looking for as inspectors in terms of fire precautions in nursing homes. The training was either “on the job”¹⁸⁵³, or relied on the application of training previously given to the witnesses as employees rather than being targeted at the inspector’s role¹⁸⁵⁴. After appointment as an inspector, but in advance of actually starting, there was no training in the legislation¹⁸⁵⁵.

38. Neither Lance Blair nor Andrew Walker was involved in training the Health Board inspectors in their duties¹⁸⁵⁶. In particular, Mr Blair was not involved in training the inspectors as to what constituted sufficient and suitable fire safety precautions and arrangements before they went out to inspect nursing homes¹⁸⁵⁷. Yvonne Lawton, in particular, could recall no seminars relating to the issues which the inspectors were supposed to be looking at in terms of section 16 of the Health Board’s own Guidance quoted above¹⁸⁵⁸.

4. Approach of the Health Board to its statutory responsibilities

39. It is important that a regulator is robust in setting standards in the sector it regulates and looking at matters of health and safety¹⁸⁵⁹.

40. It is, therefore, relevant to know how the Health Board approached compliance with its own statutory responsibilities under the 1990 Regulations.

¹⁸⁵¹ Lance Blair, 9 March 2010, am, pp72-76;

¹⁸⁵² Andrew Walker, 9 March 2010, pm, p65;

¹⁸⁵³ Mairi MacLeod, 25 February 2010, am, pp120-121;

¹⁸⁵⁴ Edward Hattie, 26 February 2010, am, p105; Thomas Lynch, 4 March 2010, am, pp48-49; Yvonne Lawton, 26 February 2010, pm, p17; Margaret MacCallum, 2 March 2010, pm, pp18-19; 3 March 2010, am, p72; Angela Westrop, 21 April 2010, pm, pp68-70;

¹⁸⁵⁵ Thomas Lynch, 4 March 2010, am, p109;

¹⁸⁵⁶ Lance Blair, 9 March 2010, am, p98; Andrew Walker, 9 March 2010, pm, pp80-81;

¹⁸⁵⁷ Lance Blair, 9 March 2010, am, pp98-99; Thomas Lynch, 4 March 2010, pm, pp87-88;

¹⁸⁵⁸ Yvonne Lawton, 2 March 2010, am, pp95-96;

¹⁸⁵⁹ Rod Sylvester Evans, 23 June 2010, pp83-85; 94-95;

41. The approach of the Health Board to compliance can be discerned in the evidence about the consideration given by the Health Board, and its inspectors, to the sufficiency and suitability of the following precautions against the risk of fire, namely-

- (i) the procedure to be adopted by nursing home staff on the sounding of a fire alarm;
- (ii) the frequency and content of fire drills, and
- (iii) the positions of bedroom doors

Procedure on the sounding of a fire alarm

42. On this matter the Health Board did not appear to consider that it had a responsibility for considering the sufficiency and suitability of the procedure that was to be followed at Rosepark following the sounding of the fire alarm.

43. On the basis of the evidence set out below the Health Board's examination of the procedure at Rosepark was limited largely to a process of record checking. There appears to have been no analysis of the sufficiency and suitability of any procedure that actually existed at Rosepark.

44. The approach of the Health Board also appears to have been influenced by misguided assumptions about the role of the Fire Service in relation to nursing homes.

Edward Hattie

45. Until he retired in late December 1995, Mr Hattie was the Assistant Chief Nursing Officer for the Health Board¹⁸⁶⁰.

¹⁸⁶⁰ Edward Hattie, 26 February 2010, am, p79;

46. In that capacity he was team leader of the inspection team that visited private nursing homes¹⁸⁶¹.

47. As inspection team leader Mr Hattie was responsible for making sure that nursing homes met the requirements of the guidelines of the Health Board¹⁸⁶².

48. In relation to the period from 1992 to his retirement in 1995 Mr Hattie was asked to respond to the question “*What role did you understand the Health Board to have in respect of the precautions to be taken and arrangements to be made by nursing homes in relation to fire, or the risk of fire?*”¹⁸⁶³

49. By way of response, Mr Hattie replied that the Health Board had a Fire Officer who would give the Board advice, and the Health Board had “*the Fire Service’s scrutiny. The Fire Service either ok’d it or didn’t ok it*”.

50. Mr Hattie also appeared to have an understanding that the Fire Brigade would visit, and approve, the arrangements at nursing homes annually¹⁸⁶⁴. The source of that understanding was obscure¹⁸⁶⁵.

51. In relation to the period 1992 to 1995 Mr Hattie was asked to respond to the question “*What did the Health Board consider to be the appropriate procedure to be followed on the activation of a fire alarm in a nursing home?*”

52. Mr Hattie replied that you would automatically call the Fire Brigade¹⁸⁶⁶.

53. Asked to consider the terms of the fire notice recovered from the vicinity of the fire door to corridor 1, production 656, Mr Hattie considered that he might take issue

¹⁸⁶¹ Edward Hattie, 26 February 2010, am, pp80, 83-84;

¹⁸⁶² Edward Hattie, 26 February 2010, am, p85;

¹⁸⁶³ Edward Hattie, 26 February 2010, am, p91

¹⁸⁶⁴ Edward Hattie, 26 February 2010, am, pp92-94;

¹⁸⁶⁵ Edward Hattie, 26 February 2010, am, pp94-95;

¹⁸⁶⁶ Edward Hattie, 26 February 2010, am, p106;

with certain matters of emphasis (such as bolder type for the direction to call the Fire Brigade at paragraph “f”). However, it was not apparent that Mr Hattie considered that the inspectors would look beyond the terms of the notices and consider the procedure adopted by Rosepark in practice. Indeed, the contrary was suggested by his answer to the question whether he would know that the procedure actually adopted at Rosepark on activation of the fire alarm was different to the order of events described in the notice. Mr Hattie said that he would not be aware of that¹⁸⁶⁷.

54. The existence of any discrepancy between the procedure adopted in practice by the management and staff at Rosepark on the occurrence of a fire alarm, and the terms of the publicly exhibited notices there, was just the kind of matter that inspection with an eye to the sufficiency and suitability of fire precautions in the Home should have revealed.

55. Mr Hattie’s evidence was not such as to demonstrate that the Health Board considered that it had, or took, responsibility for considering the sufficiency and suitability of the procedure in place at Rosepark on the sounding of a fire alarm.

Thomas Lynch

56. Between 1996 and 2002 Thomas Lynch was the Professional Nursing Advisor to the Health Board¹⁸⁶⁸.

57. In that capacity Mr Lynch was responsible for the nursing homes registration inspection process. That responsibility extended to the registration and inspection of nursing homes within the Lanarkshire Health Board area¹⁸⁶⁹.

58. Mr Lynch saw the nature of his responsibility as fulfilling the Health Board’s statutory responsibilities in visiting all registered nursing homes in the Health Board’s area at least twice per year¹⁸⁷⁰.

¹⁸⁶⁷ Edward Hattie, 26 February 2010, am, pp115-118;

¹⁸⁶⁸ Thomas Lynch, 4 March 2010, am, pp76-77;

¹⁸⁶⁹ Thomas Lynch, 4 March 2010, am, p79;

59. He was responsible for the inspection teams but, occasionally, formed part of them¹⁸⁷¹.

60. Mr Lynch misunderstood the statutory responsibilities of the Health Board under Regulation 13 of the 1990 Regulations, primarily because he misunderstood the actual role of the Fire Service in fire safety inspections after the initial letter of comfort at the time of registration. He considered responsibility fell to the registered person and the Fire Authority for major issues relating to fire procedures.

61. Mr Lynch was referred to the terms of Regulation 13(1) of the 1990 Regulations. He was asked to explain his understanding of what Regulation 13(1) required of the Health Board¹⁸⁷².

62. Mr Lynch's response was as follows:

“That having examined the documentation, being assured that the training had been recorded, whether it be lectures, fire drills, evacuation, tests of system, had been conducted then we would take that as an honest record, and there was a letter of comfort from the fire brigade who had conducted a visit, that they would have looked more thoroughly and more technically...at the fire processes, fire equipment, escape routes, fire escape doors, alarm systems etc. They would have brought their expertise to that inspection, giving them the comfort in issuing this letter of comfort or certificate. That was my understanding of what this letter of comfort conveyed to myself or my colleagues”¹⁸⁷³.

63. In addressing the Health Board's responsibilities under Regulation 13(3) Mr Lynch said that that was the kind of issue he would have expected to be covered by the letter of comfort, hence why he would ask if the Home had a letter of comfort from the Fire Brigade. “That was the field of expertise that a fire officer would bring to an inspection conducted by themselves, looking at those points”¹⁸⁷⁴.

¹⁸⁷⁰ Thomas Lynch, 4 March 2010, am, pp80-81;

¹⁸⁷¹ Thomas Lynch, 4 March 2010, am, p82;

¹⁸⁷² Thomas Lynch, 4 March 2010, am, p140;

¹⁸⁷³ Thomas Lynch, 4 March 2010, am, pp139-141;

¹⁸⁷⁴ Thomas Lynch, 4 March 2010, am, pp138-139;

64. Mr Lynch described the inspection of nursing homes by the Health Board inspectors under Regulation 13 of the 1990 Regulations as a “layman’s qualitative assessment”. It wasn’t technical¹⁸⁷⁵. The role of the inspector, according to Mr Lynch, was to check that the original standards of fire safety, accepted by the Fire Brigade and other agencies at the time of first registration were being maintained¹⁸⁷⁶.

65. Thus, in relation to the letter of comfort, production 213, page 4, Mr Lynch expected to see an annual letter covering the issues contained in the original letter (including the formulation of a suitable fire routine)¹⁸⁷⁷. That was something the inspectors would be looking for¹⁸⁷⁸.

66. If so, they cannot have found one because no subsequent letters ever existed. Thomas McNeilly, the fire safety officer at Bellshill Fire Station, issued a letter of comfort to the Health Board at the time when Rosepark was to be registered¹⁸⁷⁹. He was not asked by the Health Board to visit Rosepark again¹⁸⁸⁰.

67. The primary focus was on the delivery of good quality nursing care to the residents, the staff that were there to deliver care and any issues with regard to shortcomings in the delivery of that care. Fire safety was not at the top of the list simply because Mr Lynch’s view, then and now, was that another authority looked after those particular services¹⁸⁸¹.

68. Mr Lynch did not consider that the role of the Health Board extended beyond the general. “My view was, and I think my colleagues’ view was, that a considerable responsibility fell to the registered person and the fire authority for major issues relating to the fire procedures”¹⁸⁸².

69. Mr Lynch felt that the detailed knowledge of fire safety and fire procedures rested with people who were more expert than him, and they would be people in the

¹⁸⁷⁵ Thomas Lynch, 4 March 2010, am, pp144-147;

¹⁸⁷⁶ Thomas Lynch, 4 March 2010, am, pp152- 154;

¹⁸⁷⁷ Thomas Lynch, 4 March 2010, pm, pp4-7

¹⁸⁷⁸ Thomas Lynch, 4 March 2010, pm, p7;

¹⁸⁷⁹ Production 213, p4;

¹⁸⁸⁰ Thomas McNeilly, 25 January 2010, am, pp10-11;

¹⁸⁸¹ Thomas Lynch, 4 March 2010, pm, pp18-19;

¹⁸⁸² Thomas Lynch, 4 March 2010, am, pp100-101

Fire Brigade. Mr Lynch did not look on himself or the other inspectors as persons with any particular expertise in fire procedures, fire fighting, and fire evacuation¹⁸⁸³.

70. The Health Board's approach appears to have been one which was concerned with examining for the presence of documents rather than considering the sufficiency and suitability of their contents¹⁸⁸⁴.

71. The Health Board inspectors would look for a policy or procedure which spelt out what staff should do if the fire alarm sounded¹⁸⁸⁵. If recorded in fire notices the inspectors would not look specifically beyond the terms of the notice to establish whether the procedure prescribed would be carried out in practice¹⁸⁸⁶.

72. Mr Lynch's understanding of the role of the Fire Brigade was that "they had considerable responsibility throughout the life of that nursing home operating as a nursing home". The Health Board sought to be assured that during the calendar year someone from the Fire Brigade had visited, conducted an investigation of a kind, and provided the registered person with a letter or certificate of comfort¹⁸⁸⁷. He did not, however, know what the statutory basis for such visits was¹⁸⁸⁸.

73. This misunderstanding of the Fire Brigade's involvement in nursing homes fed into the style for the self audit document which nursing homes were required to submit after 1997, and which Mr Lynch was involved in preparing¹⁸⁸⁹. The reference in the self audit form was not a reference to a Fire Brigade familiarisation visit¹⁸⁹⁰.

Mairi Macleod

74. Mairi Macleod was a headquarters administrator with the Health Board between 1992 and 1995 and was a member of the nursing home inspection team¹⁸⁹¹.

¹⁸⁸³ Thomas Lynch, 4 March 2010, am, pp102-104;

¹⁸⁸⁴ Thomas Lynch, 4 March 2010, pm, pp40-41, under reference to paragraph 16.1 of the Health Board's Guidance Notes of June 1999;

¹⁸⁸⁵ Thomas Lynch, 4 March 2010, am, pp96-97;

¹⁸⁸⁶ Thomas Lynch, 4 March 2010, am, pp99-100;

¹⁸⁸⁷ Thomas Lynch, 4 March 2010, am, pp101-102

¹⁸⁸⁸ Thomas Lynch, 4 March 2010, pm, pp3-4;

¹⁸⁸⁹ Thomas Lynch, 4 March 2010, pm, pp9-11; production 813, page 12;

¹⁸⁹⁰ Thomas Lynch, 4 March 2010, pm, pp12-13;

¹⁸⁹¹ Mairi Macleod, 25 February 2010, am, p106;

75. Mrs Macleod was asked the question: "*When you were a Health Board Inspector, what did the Health Board consider to be the appropriate procedure to be followed by nursing home staff in the event of a fire alarm sounding*¹⁸⁹²?"

76. Mrs Macleod's response was that the Health Board inspection team would expect the nursing home to have an adequate written fire policy in place *which would have been approved by the Fire Service, not the Health Board. Mrs Macleod stated that "we would just accept that that was what the procedure was"*¹⁸⁹³.

77. If there was a fire procedure the assumption was that it would have been arrived at in consultation with the Fire Brigade. As an inspector Mrs Macleod would not have the expertise to be able to say whether a fire procedure was adequate or not¹⁸⁹⁴.

78. In response to the question what her understanding of the role of the Fire Brigade was in relation to the precautions to be taken and arrangements to be made by nursing homes in respect of fire, Mrs Macleod stated that the inspectors would look to see if the Fire Service had recently visited the Home; they would check to see if fire drills had been held, and they would check that the fire extinguishers had themselves been checked¹⁸⁹⁵. The inspectors would have expected that the Fire Brigade had given advice on matters relating to fire¹⁸⁹⁶.

79. Mrs Macleod envisaged that the Fire Brigade was going around and making regular inspections of premises¹⁸⁹⁷.

80. This misapprehension as to what the Fire Service were doing in relation to nursing homes may have been advised by Mrs Macleod's erroneous belief that nursing homes required a fire certificate¹⁸⁹⁸.

81. As regards notices concerning the procedure to be adopted in the event of a fire, or fire alarm sounding, Mrs MacLeod's recollection was that they would have been taken at face value¹⁸⁹⁹

¹⁸⁹² Mairi Macleod, 25 February 2010, am, p111;

¹⁸⁹³ Mairi Macleod, 25 February 2010, am, pp112-115;

¹⁸⁹⁴ Mairi Macleod, 25 February 2010, am, pp148-149;

¹⁸⁹⁵ Mairi Macleod, 25 February 2010, am, pp115-116;

¹⁸⁹⁶ Mairi Macleod, 25 February 2010, am, p116;

¹⁸⁹⁷ Mairi Macleod, 25 February 2010, am, pp161-164

¹⁸⁹⁸ Mairi Macleod, 25 February 2010, am, p117;

Yvonne Lawton

82. Between 1995 and 2000 Yvonne Lawton (formerly Crookston) was a Headquarters Administrator with the Health Board¹⁹⁰⁰.

83. Asked whether she would be concerned to understand what procedures existed within a nursing home in circumstances where a fire alarm sounded, Mrs Lawton replied that she would not have looked at the detail of the procedures¹⁹⁰¹. Mrs Lawton would have checked that there was a record of drills, but she would not have checked what was involved¹⁹⁰². She thought that would be the general approach of the inspectors¹⁹⁰³.

84. Mrs Lawton could not recall any discussion about an appropriate procedure to be followed in the event of a fire alarm sounding. However, she was not required to assess the procedures that were in place in nursing homes, and did not do so¹⁹⁰⁴. Nor, as far as she was aware, did anyone else¹⁹⁰⁵

85. As a member of the Health Board inspection team, Mrs Lawton would have expected the owners or operators of the Home to put in place appropriate procedures to deal with the situation if a fire alarm were to sound¹⁹⁰⁶. Mrs Lawton did not see it as her role to examine these procedures. Nor, as far as she was aware, did the other inspectors on the team¹⁹⁰⁷.

86. The inspectors would be looking for documentation evidencing certain matters but they would not be looking behind what was contained in the records¹⁹⁰⁸. Mrs Lawton thought that there would be fire procedures which would be individual to

¹⁸⁹⁹ Mairi MacLeod, 25 February 2010, pm, p2;

¹⁹⁰⁰ Yvonne Lawton, 26 February 2010, pm, pp13-14;

¹⁹⁰¹ Yvonne Lawton, 26 February 2010, pm, p22

¹⁹⁰² Yvonne Lawton, 26 February 2010, pm, pp22-23;

¹⁹⁰³ Yvonne Lawton, 26 February 2010, pm, p23;

¹⁹⁰⁴ Yvonne Lawton, 26 February 2010, pm, pp29-32;

¹⁹⁰⁵ Yvonne Lawton, 26 February 2010, pm, p32;

¹⁹⁰⁶ Yvonne Lawton, 26 February 2010, pm, p33;

¹⁹⁰⁷ Yvonne Lawton, 26 February 2010, pm, p34;

¹⁹⁰⁸ Yvonne Lawton, 26 February 2010, pm, pp48-49;

establishments. The inspectors would be looking to see that there was a procedure in place. *They would not be looking at the suitability of that procedure*¹⁹⁰⁹.

87. When asked whether the inspection teams had been rigorous in getting to the bottom of what the fire procedures and practices were Mrs Lawton said “The exact detail of the procedures and evacuation procedures, I would say I didn’t know that”¹⁹¹⁰.

88. Mrs Lawton was unsure whether she would have had any concerns if told at an inspection in Rosepark that the procedure on a fire alarm sounding was to gather at the fire alarm panel, investigate at the zone indicated, and only thereafter call the Fire Brigade. It was perhaps a matter that the home would need to determine having assessed the risks involved. Mrs Lawton did not have any specific training in fire procedures or fire risk assessment, and did not believe that she had the skills to look at fire procedures¹⁹¹¹

89. Mrs Lawton did not, in any event, believe that the inspectors set specific fire safety standards¹⁹¹²

Margaret MacCallum

90. Between January 1999 and early 2002 Margaret MacCallum was the nursing member of the Health Board’s inspection team. She served in that role until the point in time when the inspection functions of the Health Board were taken over by the Care Commission¹⁹¹³.

91. In relation to fire safety the inspectors did not have the authority that the Fire Brigade could bring to the subject. So the inspectors looked at basic things, such as seeing that fire drills had been carried out, that staff had had induction training and fire lectures and that the fire extinguishers and the fire exits had been checked on a frequent basis¹⁹¹⁴.

¹⁹⁰⁹ Yvonne Lawton, 26 February 2010, pm, pp50-54; Production 1395, p29, paragraph 2.11;

¹⁹¹⁰ Yvonne Lawton, 26 February 2010, pm, p83;

¹⁹¹¹ Yvonne Lawton, 2 March 2010, am, pp33-37, 55;

¹⁹¹² Yvonne Lawton, 2 March 2010, pm, p6;

¹⁹¹³ Margaret MacCallum, 2 March 2010, pm, pp11-12;

¹⁹¹⁴ Margaret MacCallum, 2 March 2010, pm, p15;

92. Miss MacCallum's expertise was in nursing not fire control¹⁹¹⁵.
93. Miss MacCallum was not aware of the Health Board having any position on what would be the appropriate procedure for staff in a nursing home to follow in the event of a fire alarm sounding¹⁹¹⁶.
94. Miss MacCallum was not aware of the existence of any guidance that would have assisted her in determining what fire procedures were appropriate or otherwise¹⁹¹⁷.
95. If Miss MacCallum were to have gone into a nursing home as part of an inspection team and found a notice on a wall setting out the steps that should be taken in the event of a fire warning sounding, she did not see it as part of her function to assess the suitability and sufficiency of the procedure. The contents of the fire notices were not the subject of follow-up discussion¹⁹¹⁸.
96. In answer to a question by the Court as to who she thought was responsible for considering the adequacy of arrangements such as the procedure following an alarm sounding Miss MacCallum thought it would be the Fire Brigade "in whatever way they contacted the homes"¹⁹¹⁹.
97. What the inspectors were looking for were written records of procedures. What the procedures were, and – critically – whether they were sufficient and suitable in the circumstances of the nursing home, were matters to which the inspectors did not apply their minds¹⁹²⁰.

Angela Westrop

98. Angela Westrop was employed by the Health Board as a Headquarters administrator from November 2000. It was her first job in the care sector¹⁹²¹. Most of her work was with the nursing home inspection team¹⁹²².

¹⁹¹⁵ Margaret MacCallum, 2 March 2010, pm, pp17-18;

¹⁹¹⁶ Margaret MacCallum, 2 March 2010, pm, pp19-21;

¹⁹¹⁷ Margaret MacCallum, 2 March 2010, pm, pp21-22;

¹⁹¹⁸ Margaret MacCallum, 2 March 2010, pm, pp40-41;

¹⁹¹⁹ Margaret MacCallum, 2 March 2010, pm, pp41-42

¹⁹²⁰ Margaret MacCallum, 2 March 2010, pm, p44; 3 March 2010, am, pp99-102;

¹⁹²¹ Angela Westrop, 21 April 2010, pm, pp60-61;

¹⁹²² Angela Westrop, 21 April 2010, pm, pp62-63;

99. During an inspection Mrs Westrop would look for an evacuation procedure. She would discuss with the manager of the home how the procedure would be implemented. Mrs Westrop could not recall what the Health Board considered to be an appropriate procedure to be adopted when the fire alarm sounded. Fire notices on the wall would not be sufficient. She would look for a written procedure and would be surprised if there was none¹⁹²³.

100. While this evidence might imply a greater level of scrutiny than simply noting the existence of fire notices it is not obvious that Mrs Westrop anticipated doing more than establishing the existence of a written procedure (as opposed to analyse its content). Given that her “on the job” training involved Mr Lynch and Miss MacCallum (whose evidence on this matter is set out above) pointing out to her what the inspectors really needed to concentrate on¹⁹²⁴, it would seem unlikely that Mrs Westrop would have analysed any written procedure in terms of its sufficiency and suitability

(ii) Sufficiency and Suitability of Fire Drills

101. There appears to have been a determination by the Health Board at one time that drills should be undertaken at least annually¹⁹²⁵. Annual drills were stipulated in the Guidance Notes from June 1999 and that was reflected in the evidence of the inspectors¹⁹²⁶.

102. As regards the contents of drills, however, an approach similar to that pertaining to the sufficiency and suitability of the procedure after a fire alarm can be discerned in the evidence of the Health Board inspectors. Thus:

Edward Hattie

¹⁹²³ Angela Westrop, 21 April 2010, pm, pp70-73;

¹⁹²⁴ Angela Westrop, 21 April 2010, pm, pp68-69;

¹⁹²⁵ Mairi Macleod, 25 February 2010, am, p118

¹⁹²⁶ Production 256, p39; Thomas Lynch, 4 March 2010, pm, p42; Margaret MacCallum, 2 March 2010, pm, p21;

103. Mr Hattie appeared to state that the inspectors would be content with the recording of fire drills in a register supplied to the nursing home by the company who installed the fire detection equipment¹⁹²⁷.

Mairi Macleod

104. The inspectors would expect nursing homes to comply with “what had been set down by the Fire Service in terms of fire drills, checking of extinguishers and the fire certificate in the building”. It was the Fire Service who would decide whether the appropriate arrangements were in place. They were the experts on fire and the inspectors would not presume to comment on that¹⁹²⁸.

Thomas Lynch

105. Mr Lynch stated that the inspectors would not necessarily ask what was involved in fire drills. Normally the record would suffice¹⁹²⁹. It follows that, in so far as the drill would, or might, have involved a procedure that did not involve an immediate call to the Fire Brigade, that detail would not necessarily have been revealed at inspection.

106. As long as there was a record of fire lectures and drills the Health Board would take the written record of those as evidence that they had been done and that the continuing obligation of the registered person to provide them had been satisfied¹⁹³⁰.

Yvonne Lawton

107. In checking for evidence of drills it was for the owners or operators to determine how they were put into practice. Mrs Lawton would not have checked the detail of the procedures involved, and she thought that that would have been the general approach of the inspectors¹⁹³¹.

Margaret MacCallum

¹⁹²⁷ Edward Hattie, 26 February 2010, am, p109;

¹⁹²⁸ Mairi Macleod, 25 February 2010, am, pp121-122;

¹⁹²⁹ Thomas Lynch, 4 March 2010, pm, pp1-2;

¹⁹³⁰ Thomas Lynch, 4 March 2010, pm, pp42-43;

¹⁹³¹ Yvonne Lawton, 26 February 2010, pm, pp22-24;

108. Miss MacCallum stated that the inspectors would look at fire drill records and records of fire lectures. They would not explore what the drills and lectures involved but took the records at face value¹⁹³²

109. In answer to a question by the Court as to who she thought was responsible for considering the adequacy of arrangements such as the content of drills Miss MacCallum again thought it would be the Fire Brigade¹⁹³³.

Angela Westrop

110. The inspectors would look for records of fire drills. They would not necessarily look behind the records of drills to find out what had happened during the fire drills¹⁹³⁴.

(iii) Bedroom Doors

111. The precise position of the Health Board on whether bedroom doors should be kept closed at night was ambiguous. The positions of the witnesses were not consistent. Thus:

Edward Hattie

112. Mr Hattie drew a distinction between fire doors and other doors. Fire doors always had to be kept shut. As regards bedroom doors Mr Hattie said that “you really can’t lay down the law and say “Shut all doors”¹⁹³⁵

113. Mr Hattie had no recollection of any issue arising at Rosepark in relation to door closers being disconnected or removed¹⁹³⁶

Mairi MacLeod

114. Mrs MacLeod’s evidence was that, if the bedroom door was a fire door, the inspectors would expect it to be shut. Mrs MacLeod had no recollection of what the position was if the door was not a fire door¹⁹³⁷.

¹⁹³² Margaret MacCallum, 3 March 2010, am, pp41-42;

¹⁹³³ Margaret MacCallum, 2 March 2010, pm, pp41-42

¹⁹³⁴ Angela Westrop, 21 April 2010, pm, pp75-76;

¹⁹³⁵ Edward Hattie, 26 February 2010, am, pp98-99;

¹⁹³⁶ Edward Hattie, 26 February 2010, pm, pp9-11;

¹⁹³⁷ Mairi MacLeod, 25 February 2010, am, p117;

Thomas Lynch

115. Mr Lynch was asked what the Health Board considered to be the appropriate approach of nursing home staff to the question whether doors to bedrooms should be left open or closed at night. His response was to say that it was in his mind and, he thought, in the minds of all of the inspectors that the doors should be closed at all times¹⁹³⁸.

116. It was not apparent from Mr Lynch's evidence that the Health Board had any policy documents which could be consulted by inspectors when considering matters like the approach to be taken if door closers were found to be connected¹⁹³⁹.

Yvonne Lawton

117. Asked what she thought the approach of the Health Board was to whether bedroom doors should be kept open or closed at night Mrs Lawton thought that it was a matter for debate. There was a balance to be struck between the safety of the residents in terms of fire safety Regulations as against requests from residents. She thought that the position of the Board would have been that fire safety was the important thing. Mrs Lawton had a general recollection of discussion occurring between the Health Board, Social Work Departments and nursing home owners on the subject, but she could not recall the outcome of those discussions¹⁹⁴⁰.

Margaret MacCallum

118. Asked what she thought the approach of the Health Board was to whether bedroom doors should be kept open or closed at night Miss MacCallum replied "We would have said they should have been shut".¹⁹⁴¹ The purpose of doing so was for reasons of fire safety¹⁹⁴².

119. Miss MacCallum was aware of a discussion within the Health Board about the use of door closers. She recalled, in general terms, a debate within the nursing home

¹⁹³⁸ Thomas Lynch, 4 March 2010, am, p88;

¹⁹³⁹ Thomas Lynch, 4 March 2010, am, pp88-90;

¹⁹⁴⁰ Yvonne Lawton, 26 February 2010, pm, pp27-28

¹⁹⁴¹ Margaret MacCallum, 2 March 2010, pm, pp67-68;

¹⁹⁴² Margaret MacCallum, 2 March 2010, pm, p68;

community about their use. However, ultimately, her position was that the Health Board would insist on bedroom doors being kept closed at night against a request by relatives for it to be kept open¹⁹⁴³.

Angela Westrop

120. The position of Mrs Westrop on the matter of the Health Board's approach to bedroom doors was uncertain. She thought that the Health Board would feel that, at night, it was safer to keep bedroom doors closed. Mrs Westrop recalled that there was discussion about doors within the Health Board from time to time but she was unable to remember the exact details¹⁹⁴⁴.

Lance Blair

121. The Fire Safety Advisor to the Health Board was not aware of any particular policy of the Health Board as to the appropriateness of keeping bedroom doors open at night, although he would have been of the view that they should be closed¹⁹⁴⁵.

Summary on bedroom doors

If the Health Board had a policy on the matter of bedroom doors, it was not one that was universally known about, or recalled, by the inspectors who gave evidence.

Conclusions on approach of the Health Board to its statutory responsibilities

122. On the basis of the foregoing evidence of Health Board employees it is not apparent that the Health Board approached its statutory responsibilities under the 1990 Regulations in any clearly reasoned way.

123. I accept that the evidence supports the conclusion that the Health Board did not consider that it had a role in assessing the sufficiency and suitability of fire precautions in nursing homes. Rather, it considered that its role was limited to confirming the existence of documents vouching that a nursing home was complying with its statutory obligations.

¹⁹⁴³ Margaret MacCallum, 2 March 2010, pm, pp69-72

¹⁹⁴⁴ Angela Westrop, 21 April 2010, pm, pp96-98;

¹⁹⁴⁵ Lance Blair, 9 March 2010, am, pp103-104;

124. Mr Hattie and Mr Lynch, in particular, placed emphasis on the regular and continued involvement of the Fire Service in the scrutiny of fire precautions in nursing homes. While the Fire Service may have had a role, at least after 1997, in enforcing fire precautions in the workplace, it is apparent that neither Mr Hattie nor Mr Lynch were aware of any statutory basis underpinning the assumptions they made about the involvement of the Fire Service.

5. Inspection Visits at Rosepark

125. On 11 February 1992 Thomas McNeilly received a telephone call from Dr MacDonald at the Health Board. Dr MacDonald indicated that he would require confirmation that the premises were satisfactory¹⁹⁴⁶.

126. Mr McNeilly undertook a final survey of the premises on 14 February 1992 and called Dr MacDonald with that confirmation.¹⁹⁴⁷ The goodwill letter was issued on 25th February 1992¹⁹⁴⁸

6 February 1992¹⁹⁴⁹

127. The initial registration inspection visit was conducted on 6 February 1992

128. It was attended by Mr Hattie and Dr MacDonald.

129. In reference to “Firemaster’s Report/Certificate” there was the entry “Approved verbally letter to follow”; (p8)

130 Fire procedures were said to be on display in a number of places in the Home; (p8)

131. In the Inspection Team’s recommendations registration was recommended subject to a restriction to 30 residents; (p16)

19 August 1992¹⁹⁵⁰

¹⁹⁴⁶ Thomas McNeilly, 22 January 2010, pm, pp4-5

¹⁹⁴⁷ Thomas McNeilly, 22 January 2010, pm, p5;

¹⁹⁴⁸ Thomas McNeilly, 22 January 2010, pm, pp12-14;

¹⁹⁴⁹ Production 818, pp8-16; Edward Hattie, 26 February 2010, am, pp123-133;

¹⁹⁵⁰ Production 817, pp217-226;

132. The report of the 6 monthly visit was conducted on 19 August 1992 by Mr Hattie and, probably, Mairi MacLeod. The following points are of interest:

133. There was now a Firemaster's Report/Certificate corresponding with the Goodwill Letter¹⁹⁵¹; (p218)

134. The date of last inspection was noted as February 1992; (p218)

135. The Fire Procedure and Log are recorded as having been examined; (p218). The fire procedure would accord with the fire notices on the wall. The fire log would record fire lectures and drills. Production 27 was the kind of thing the inspectors would be looking for¹⁹⁵².

136. There was a lecture noted for 11th February 1992¹⁹⁵³.

137. Under "Fire Drill" it was noted "not yet". Mrs MacLeod anticipated annual drills for each of the shifts. The inspectors would look for evidence that all staff had attended. They would look at the staff register and check it against those who had attended¹⁹⁵⁴.

138. The inspectors would look for maintenance records for the fire alarm. There is a reference in the report to "ALARM 14/5 92" (p218). This may have been the sounding of the alarm or (less likely) a drill¹⁹⁵⁵.

139. Fire precautions were not the main focus of an inspection. It was about adequate staffing levels and the care of residents¹⁹⁵⁶.

140. The recommendation was that registration should be continued (p226).

4 February 1993¹⁹⁵⁷

¹⁹⁵¹ Production 213, p4;

¹⁹⁵² Mairi MacLeod, 25 February 2010, pm, pp8-10;

¹⁹⁵³ Mairi MacLeod, 25 February 2010, pm, pp10-11;

¹⁹⁵⁴ Mairi MacLeod, 25 February 2010, pm, p11;

¹⁹⁵⁵ Mairi MacLeod, 25 February 2010, pm, p13;

¹⁹⁵⁶ Mairi MacLeod, 25 February 2010, pm, p15;

¹⁹⁵⁷ Mairi MacLeod, 25 February 2010, pm, pp16-28;

141. The annual inspection of 4th February was conducted by Mr Hattie and Mrs MacLeod¹⁹⁵⁸. The following points are of interest:

142. This was the first annual inspection of Rosepark¹⁹⁵⁹.

143. The reference Firemaster's Report/Certificate was a reference back to the letter of comfort¹⁹⁶⁰;

144. It was not yet a matter of concern that there was no other evidence of Fire Brigade involvement.

145. The inspectors would look for the fire register and flick through it¹⁹⁶¹

146. There was no record of a fire drill having occurred¹⁹⁶². No comment was made about the absence of a fire drill in the inspectors' letter of feedback dated 15th February 1993¹⁹⁶³

147. A fire lecture was recorded for 14th January 1993. The inspection would have confirmed the occurrence of the lecture rather than its contents¹⁹⁶⁴. The attendance record indicates that the lecture did not involve the entire workforce¹⁹⁶⁵.

148. As regards the fire procedure the inspection would have involved checking for the presence of fire notices (as opposed to their contents)¹⁹⁶⁶.

149. The two undated letters bearing to be from Alec Ross¹⁹⁶⁷ and Alex Ross¹⁹⁶⁸ Electrical, 24 Electrical Care" relating to electrical cover, concerning an enquiry of 20 January 1993, would have been sufficient evidence of electrical maintenance arrangements at Rosepark¹⁹⁶⁹.

¹⁹⁵⁸ Production 817, p210;

¹⁹⁵⁹ Mairi MacLeod, 25 February 2010, pm, pp16-17;

¹⁹⁶⁰ Mairi MacLeod, 25 February 2010, pm, p22; Edward Hattie, 26 February 2010, am, p151;

¹⁹⁶¹ Edward Hattie, 26 February 2010, am, p148;

¹⁹⁶² Mairi MacLeod, 25 February 2010, pm, pp18-19;

¹⁹⁶³ Edward Hattie, 26 February 2010, am, pp145-146;

¹⁹⁶⁴ Mairi MacLeod, 25 February 2010, pm, p20;

¹⁹⁶⁵ Production 27, p8; Edward Hattie, 26 February 2010, am, pp148-150;

¹⁹⁶⁶ Mairi MacLeod, 25 February 2010, pm, p20;

¹⁹⁶⁷ Production 215, page 6;

¹⁹⁶⁸ Production 215, page 60;

¹⁹⁶⁹ Mairi MacLeod, 25 February 2010, pm, pp22-28;

29 July 1993¹⁹⁷⁰

150. The 6 monthly inspection on 29 July 1993 was conducted by Mr Hattie, Mr Mallinson and, possibly, Mrs MacLeod¹⁹⁷¹.

151. The reference Firemaster's Report/Certificate was probably again a reference back to the letter of comfort ¹⁹⁷²;

152. For the date of last fire drill there was recorded "None". The inspectors, by this time, would have expected to have seen a record with evidence of a drill¹⁹⁷³.

153. The fire lecture of 14 January 1993 was again recorded. The inspectors would have looked at the log again¹⁹⁷⁴.

154. The letters from Alec Ross or Alex Ross would again have been the kind of documents sought by the inspectors in relation to maintenance¹⁹⁷⁵.

155. In the recommendations section of the report there was no reference to any concern about the absence of fire drills¹⁹⁷⁶. Nor was there any such reference in the feedback letter of 17th August 1993¹⁹⁷⁷

9 February 1994¹⁹⁷⁸

156. The annual inspection of 9th February 1994 bears to have been conducted by Mr Hattie and Mrs MacLeod¹⁹⁷⁹

157. The reference Firemaster's Report/Certificate was probably again a reference back to the letter of comfort ¹⁹⁸⁰;

158. The section for inserting the date of last fire drill was not completed, and there was, again, a reference to the fire lecture on 14th January 1993¹⁹⁸¹.

¹⁹⁷⁰ Production 817, pp186-194; Mairi MacLeod, 25 February 2010, pm, pp28-

¹⁹⁷¹ Mairi MacLeod, 25 February 2010, pm, p29-30

¹⁹⁷² Mairi MacLeod, 25 February 2010, pm, p30;

¹⁹⁷³ Mairi MacLeod, 25 February 2010, pm, p31;

¹⁹⁷⁴ Mairi MacLeod, 25 February 2010, pm, pp31-32;

¹⁹⁷⁵ Mairi MacLeod, 25 February 2010, pm, p33;

¹⁹⁷⁶ Mairi MacLeod, 25 February 2010, pm, pp34-35;

¹⁹⁷⁷ Mairi MacLeod, 25 February 2010, pm, pp36-37;

¹⁹⁷⁸ Production 817, pp172-181;

¹⁹⁷⁹ Production 817, p181;

¹⁹⁸⁰ Mairi MacLeod, 25 February 2010, pm, p38;

159. In evidence Mrs MacLeod agreed that the Fire Register¹⁹⁸² did not appear to show a record of any fire drill up to February 1994¹⁹⁸³

160. Under General Facilities there was no change in respect of maintenance of services. The electrical letters referred to above would have been sufficient for the inspectors' purposes¹⁹⁸⁴.

161. The summary and recommendations section of the report made no reference to any concerns, nor did the feedback letter of 11 March 1994. If there had been a concern about fire drills during the inspection it would have been raised in the letter¹⁹⁸⁵.

9^h August 1994¹⁹⁸⁶

162. The 6 monthly inspection again bears to have been conducted by Mr Hattie and Mrs MacLeod¹⁹⁸⁷.

163. The format of the report had slightly changed but still contained a record of administration and records. The reference to the Firemaster's Report/Certificate and date of last inspection again related to the goodwill letter from the Fire Brigade¹⁹⁸⁸.

164. Although the inspection occurred in excess of two years after the date of the goodwill letter Mrs MacLeod would have expected that the Fire Brigade was going out and checking things from a fire perspective, and in particular monitoring arrangements around the nursing home¹⁹⁸⁹. That knowledge affected the way fire precautions were looked at. Mrs MacLeod's evidence was that since the inspectors did not have the expertise someone else would be examining fire precautions¹⁹⁹⁰.

¹⁹⁸¹ Mairi MacLeod, 25 February 2010, pm, pp38-39;

¹⁹⁸² Production 27

¹⁹⁸³ Mairi MacLeod, 25 February 2010, pm, p45;

¹⁹⁸⁴ Mairi MacLeod, 25 February 2010, pm, pp39-40;

¹⁹⁸⁵ Mairi MacLeod, 25 February 2010, pm, pp40-43;

¹⁹⁸⁶ Production 817, pp158-167;

¹⁹⁸⁷ Production 817, page 167;

¹⁹⁸⁸ Mairi MacLeod, 25 February 2010, pm, p48;

¹⁹⁸⁹ Mairi MacLeod, 25 February 2010, pm, pp48-50

¹⁹⁹⁰ Mairi MacLeod, 25 February 2010, pm, pp50-51;

165. The date given in the inspection report for the last fire drill coincided with the date of the lecture on 14th January 1993. On the face of the record that covered very few of the staff¹⁹⁹¹. There appeared to be no record of a fire drill on 14th January 1993¹⁹⁹².

166. The inspectors would look for evidence of maintenance of services. Mr Ross's letters would again be sufficient in that regard¹⁹⁹³

167. The summary and recommendations section of the report and the feedback letter dated 29 August 1994 expressed no concerns about fire drills not having been undertaken¹⁹⁹⁴.

16 February 1995

168. The signatories to the report of the inspection on 16th February 1995 were Mr Hattie and Mrs MacLeod¹⁹⁹⁵.

169. The reference Firemaster's Report/Certificate was probably again a reference back to the letter of comfort.¹⁹⁹⁶

170. The checking of the fire procedure would have involved looking at the notices, which would have been taken at face value¹⁹⁹⁷.

171. According to Mrs MacLeod the reference to weekly fire drills should probably have been a reference to weekly fire alarm tests. If correct, the Fire Register did not appear to have recorded any drills to date. There had been lectures noted for 11 and 28 February 1992, 19 November 1992, 14 January 1993 and there was subsequently a lecture recorded for 28 July 1995 (none of which appeared to cover the full complement of staff)¹⁹⁹⁸.

¹⁹⁹¹ Mairi MacLeod, 25 February 2010, pm, pp51-53; Production 27, page 8;

¹⁹⁹² Mairi MacLeod, 25 February 2010, pm, pp53-54; Production 27, page 17;

¹⁹⁹³ Mairi MacLeod, 25 February 2010, pm, pp54-55;

¹⁹⁹⁴ Mairi MacLeod, 25 February 2010, pm, pp55-57;

¹⁹⁹⁵ Mairi MacLeod, 25 February 2010, pm, p58;

¹⁹⁹⁶ Mairi MacLeod, 25 February 2010, pm, pp58-59;

¹⁹⁹⁷ Mairi MacLeod, 25 February 2010, pm, pp60-61;

¹⁹⁹⁸ Mairi MacLeod, 25 February 2010, pm, pp61-66;

172. The document dated 25 January 1995 from Alex Ross Electrical would be the sort of document the inspectors would look to see for evidence of maintenance arrangements in relation to electrical installations. Similarly the inspectors would look for evidence such as the document evidencing testing on page 12 of production 571¹⁹⁹⁹.

173. The feedback letter of 2 March 1995 referred to no concerns about the frequency of fire drills²⁰⁰⁰.

14 August 1995²⁰⁰¹

174. The signatories of the inspection report were Mr Hattie and Yvonne Lawton (then Crookston).

175. The date of last inspection by the Fire Service is marked “N/A”.

176. Mrs Lawton would have accepted the letter from Alex Ross (production 215, page 60) as evidence of electrical cover²⁰⁰².

177. A fire lecture was noted for 28 July 1995. The number of attendees did not look like the full workforce²⁰⁰³.

178. A fire drill was noted as having occurred on 8 August 1995. There was no equivalent entry in the Fire Register. There was what looked like an entry for a fire alarm test on that date²⁰⁰⁴.

179. The report contained no comments in the section on bedrooms relative to concerns about the condition of bedroom doors. In particular no issue concerning door closers was recorded²⁰⁰⁵.

¹⁹⁹⁹ Mairi MacLeod, 25 February 2010, pm, pp68-71; Production 571, pp3, 12;

²⁰⁰⁰ Mairi MacLeod, 25 February 2010, pm, pp66-67;

²⁰⁰¹ Production 817, pp123-132;

²⁰⁰² Yvonne Lawton, 26 February 2010, pm, p64;

²⁰⁰³ Yvonne Lawton, 26 February 2010, pm, p65; Production 27, p9;

²⁰⁰⁴ Edward Hattie, 26 February 2010, am, pp166-167;

²⁰⁰⁵ Yvonne Lawton, 26 February 2010, pm, pp68-69;

180. The feedback letter dated 28 August 1995 expressed no concerns about fire precautions at Rosepark. If any issues of concern had been identified then they would have been mentioned in the letter²⁰⁰⁶.

12 February 1996²⁰⁰⁷

181. The inspectors who signed the report were Mrs Lawton and Mr Johnstone.

182. Fire drills were noted as “weekly”. Under reference to production 27 Mrs Lawton thought that the weekly entries looked more like fire alarm tests. Indeed Mrs Lawton didn’t think it seemed correct that weekly drills were being carried out²⁰⁰⁸.

183. The report noted, under General Facilities, “Alex Ross Electrical 24 hr cover for all electrical installations and portable appliances”²⁰⁰⁹.

184. There were no concerns about fire procedures, fire notices, fire practices or anything else in the feedback letter dated 28th February 1996²⁰¹⁰.

29 August 1996²⁰¹¹

185. The format of the report had undergone certain changes. The inspectors were Mrs Lawton and Mr Johnstone²⁰¹².

186. Under maintenance records (p94) there is recorded “Alex Ross inspected 25/1/96”²⁰¹³.

187. Weekly fire drills were noted (p94). Mrs Lawton thought that there had been confusion between fire drills and fire alarm tests²⁰¹⁴.

188. Under accommodation (p95) the report disclosed no issue of concern about bedroom doors²⁰¹⁵.

²⁰⁰⁶ Yvonne Lawton, 26 February 2010, pm, p71;

²⁰⁰⁷ Production 817, pp106-115;

²⁰⁰⁸ Yvonne Lawton, 26 February 2010, pm, pp73-75; Production 27, p22;

²⁰⁰⁹ Yvonne Lawton, 26 February 2010, pm, pp76-77;

²⁰¹⁰ Yvonne Lawton, 26 February 2010, pm, pp77-78;

²⁰¹¹ Production 817, pp94-99

²⁰¹² Yvonne Lawton, 26 February 2010, pm, p79;

²⁰¹³ Yvonne Lawton, 26 February 2010, pm, p79;

²⁰¹⁴ Yvonne Lawton, 26 February 2010, pm, Pp80-81;

²⁰¹⁵ Yvonne Lawton, 26 February 2010, pm, p83;

189. Under training (p96) the report noted that there was an ongoing programme of in-service training which was linked to the appraisal system. Training records were held individually for all staff²⁰¹⁶.

190. Under “Policies and Procedures” the inspection report recorded that “the Home had a manual covering most aspects of the Home’s operation but should review this to ensure that it covers all aspects of the Home’s operation including policies on patient care”. There was no particularisation of fire issues in relation to that statement. However, the report recommended a full review of existing policies and procedures to that end²⁰¹⁷.

4 February 1997²⁰¹⁸

191. The inspectors who signed the report were Mrs Lawton and Mr Johnstone²⁰¹⁹.

192. The date of registration was erroneously stated to be February 1988.

193. There was no comment on the section for maintenance records (p83).

194. Weekly fire drills were again recorded, probably erroneously²⁰²⁰.

195. Under bedroom accommodation (p84) there was no reference to any issue concerning door closers²⁰²¹.

196. Under training there was noted to be an induction programme and evidence of on-going staff training. The inspectors looked for evidence that there had been an orientation programme, that staff were made familiar with the establishment on arrival, that they were trained in fire procedures and made aware of those procedures, and that they kept up to date with clinical practice. In relation to fire procedures the inspectors would have looked at the induction programme for a sample of the staff and noted that there were fire procedures mentioned. The inspectors may also have spoken to new members of staff. After induction Mrs Lawton felt that the inspectors’

²⁰¹⁶ Yvonne Lawton, 26 February 2010, pm, pp85-86;

²⁰¹⁷ Yvonne Lawton, 26 February 2010, pm, pp86-88;

²⁰¹⁸ Production 817, pp83-87;

²⁰¹⁹ Yvonne Lawton, 2 March 2010, pm, p4;

²⁰²⁰ Yvonne Lawton, 2 March 2010, am, pp4-6; cf Production 27, p23;

²⁰²¹ Yvonne Lawton, 2 March 2010, am, pp6-7;

focus would be on clinical practice. Ultimately it was for the Home to make sure that it had a suitable fire procedure in place²⁰²².

197. The feedback letter dated 13th February 1997 did not raise any fire safety concerns²⁰²³.

4 September 1997²⁰²⁴

198. The format again changed for the succeeding reports.

199. Mrs Lawton and Mr Johnstone again signed the report as inspectors²⁰²⁵.

200. Maintenance records were recorded as satisfactory. The kinds of records checked related to hoists, fire extinguishers, and nursing equipment²⁰²⁶.

201. The document bearing to be a receipted invoice from Alex Ross Electrical on page 3 of production 571 would have satisfied Mrs Lawton as to the existence of maintenance cover for the electrical installations and appliances. She would not have pursued the matter further with the contractor²⁰²⁷.

202. Since this was an interim inspection there may not have been an examination of the fire register²⁰²⁸.

203. The home was recorded as having a suitable induction programme in place and there was evidence of ongoing in-service training. That statement was probably derived from a combination of checking records and speaking to staff²⁰²⁹

204. Under “Bedrooms” there was no record of an issue having been raised about door closers²⁰³⁰.

5 February 1998

²⁰²² Yvonne Lawton, 2 March 2010, am, pp8-11;

²⁰²³ Yvonne Lawton, 2 March 2010, am, pp11-12;

²⁰²⁴ Production 218, pp124-130;

²⁰²⁵ Yvonne Lawton, 2 March 2010, am, p15;

²⁰²⁶ Yvonne Lawton, 2 March 2010, am, pp15-16;

²⁰²⁷ Yvonne Lawton, 2 March 2010, am, pp17-18;

²⁰²⁸ Yvonne Lawton, 2 March 2010, am, pp19-20;

²⁰²⁹ Yvonne Lawton, 2 March 2010, am, pp18-19;

²⁰³⁰ Yvonne Lawton, 2 March 2010, am, p20;

205. In advance of the annual inspection in 1998 Rosepark was required to complete a self audit²⁰³¹.

206. In the self audit the answer “May Informal” was inserted against the date of last inspection in a box dealing with a satisfactory Firemaster’s Report or letter of goodwill. Mrs Lawton was uncertain what that meant. There had been ticked the statement that the home had procedures in place which reduce the risk of fire and diminish its effect if it occurs. There was confirmation that the home had a fire procedure and kept a fire log. The reference to “weekly tests” at entry 23 Mrs Lawton interpreted to be a reference to fire alarm tests. The inspectors would have taken the self audit material at face value but combined it with a check of some of the areas outlined in the audit document²⁰³².

207. The inspectors signing the report were Mrs Lawton and Mr Johnston. The person in charge was named as McCausland (although generally Mr and Mrs Balmer were present at the inspections). The maintenance records were found to be satisfactory. The Home had an appropriate induction programme in place and evidence was found of ongoing in-service training. Under bedrooms no issue was noted in respect of door closers. The only recommendation was that staff should provide a form of statutory declaration in connection with rehabilitation of offenders²⁰³³.

208. The procedure by the time of this inspection was that the report was sent in draft to the owners for comment²⁰³⁴.

26 August 1998²⁰³⁵

209. The interim registration inspection was attended by Rosslyn Rafferty, Mr Mallinson and Mr Johnston²⁰³⁶.

210. The maintenance records were deemed to be satisfactory. There was no comment on staff training. Under bedrooms there was no comment on any issue

²⁰³¹ Production 811

²⁰³² Yvonne Lawton, 2 March 2010, am, pp22-30;

²⁰³³ Yvonne Lawton, 2 March 2010, am, pp30-39;

²⁰³⁴ Production 218, p123; Yvonne Lawton, 2 March 2010, am, p39;

²⁰³⁵ Production 218, pp85-90;

²⁰³⁶ Rosslyn Rafferty, 29 June 2010, am, pp5-6;

concerning door closers. Miss Rafferty recalled no issue of concern arising in respect of door closers which had either been disconnected or removed²⁰³⁷. Had any concern of that nature arisen it would have excited a comment in the bedrooms section of the report²⁰³⁸.

211. There were no recommendations bearing upon the issue of fire precautions arising from this inspection.

9 February 1999

212. The annual registration inspection in February 1999 was preceded by a self audit dated 29th January 1999 which was prepared on behalf of Rosepark²⁰³⁹.

213. The self audit would have been looked at by an inspector in advance of the annual inspection any omissions addressed during the inspection itself²⁰⁴⁰.

214. Miss MacCallum's understood the reference in the self audit to "Firemaster's Report or letter of goodwill" to mean a letter from the Fire Brigade saying that, subsequent to it opening, they had visited the home. The "date of last inspection" in the same box she thought related to an inspection by the Fire Brigade. Miss MacCallum appeared to believe that the inspection was in the nature of a process of familiarisation²⁰⁴¹. However, the date given in the audit for the inspection – 26th August 1998 – is not included in any of the section 1(1)(d) records of visits²⁰⁴².

215. Under reference to section 4 of the self audit, where the reference to a fire log and fire procedure was ticked, Miss MacCallum explained that either she or the administrator would have examined the record of fire drills²⁰⁴³. It would be surprising if the reference in the self audit to 31 July 1998, as the date of the last fire drill, was not vouched in the fire register (it wasn't²⁰⁴⁴). She would have expected such a matter to have been picked up on during the inspection²⁰⁴⁵.

²⁰³⁷ Rosslyn Rafferty, 29 June 2010, am, pp17-20; cf. Thomas Balmer, 29 April 2010, am, p104;

²⁰³⁸ Rosslyn Rafferty, 29 June 2010, am p20;

²⁰³⁹ Production 812; Margaret MacCallum, 2 March 2010, pm, pp72-73;

²⁰⁴⁰ Margaret MacCallum, 2 March 2010, pm, pp74-75;

²⁰⁴¹ Margaret MacCallum, 2 March 2010, pm, pp74-78;

²⁰⁴² Margaret MacCallum, 2 March 2010, pm, pp80-81; Production 182, p3;

²⁰⁴³ Margaret MacCallum, 2 March 2010, pm, pp78-79;

²⁰⁴⁴ Production 27, p25;

²⁰⁴⁵ Margaret MacCallum, 2 March 2010, pm, pp79-80;

216. In relation to the self audit confirmation regarding the existence of procedures to reduce the risk of fire and diminish its effect if it occurred, Miss MacCallum explained that the inspectors would be looking to check that the premises were free from clutter, that storage was properly managed, and that the laundry was manned at all times. These were matters based on common sense. She probably thought at the time that the area around an electrical distribution box was not safe for storage²⁰⁴⁶.

217. Electrical systems and installations were things that the inspectors would want to see covered by maintenance arrangements²⁰⁴⁷.

218. Mr and Mrs Balmer were present at the annual inspection in February 1999. Sarah Meaney would have been in attendance as well²⁰⁴⁸.

219. The other inspectors were Isobel Frize and Mr Mallinson (who dealt with the pharmaceutical side of things)²⁰⁴⁹.

220. The documents relating to Alex Ross and comprising pages 6 and 60 of production 215, and page 3 of production 571, would probably have satisfied Miss MacCallum that there were arrangements in place for the maintenance of the electrical system in the home²⁰⁵⁰.

221. Miss MacCallum would have looked for evidence of training in fire safety at this, and any other, inspection. She would look at records, and also look around the home at fire extinguishers and fire exits. She would examine the fire register²⁰⁵¹.

222. In the annual inspection report, under the heading “Bedrooms”, the following was stated:

“Miss MacCallum noticed that the automatic door closers on the doors were not connected. There was some debate around this matter and the Team agreed to look further into the Regulations around door closers”

²⁰⁴⁶ Margaret MacCallum, 2 March 2010, pm, pp82-86;

²⁰⁴⁷ Margaret MacCallum, 2 March 2010, pm, p86;

²⁰⁴⁸ Margaret MacCallum, 3 March 2010, am, pp10-11;

²⁰⁴⁹ Margaret MacCallum, 3 March 2010, am, p13;

²⁰⁵⁰ Margaret MacCallum, 3 March 2010, am, pp13-15;

²⁰⁵¹ Margaret MacCallum, 3 March 2010, am, pp16-19;

223. The debate involved Mr and Mrs Balmer, and Miss MacCallum. According to Miss MacCallum the explanation for the position was that a resident was unable to access her room because of the difficulty getting through the door. Miss MacCallum said that she explained to Mr Balmer that, while she appreciated the difficulty, the door closer was there for a purpose, fire safety, and needed to be reinstated. That was not merely her view but the view of the Health Board. Miss MacCallum stated that she agreed to take the matter away and get back to the home. Meanwhile she anticipated that the door closer would be reinstated.²⁰⁵²

224. Miss MacCallum stated that she did take the matter up with the rest of the inspection team and Mr Lynch. She did not think that there was much more discussion back at the Health Board. The position was that the door closers needed to be in place and it went no further. Miss MacCallum's evidence was that she thought that she would have contacted Rosepark and informed them of the position, although she could not specifically recall doing so²⁰⁵³.

225. Miss MacCallum thought that the Board's policy was that all bedroom doors should be closed. The debate at the inspection related to one door. Miss MacCallum could not say if there were other rooms in the same position. For reasons that Miss MacCallum was unable to explain, there was no exploration at the inspection of whether the other bedroom doors were in the same position. There was nothing in the "Recommendations and Action Points" section of the report indicating that any further action was required. The issue of the door closer was dealt with by Miss MacCallum separately²⁰⁵⁴.

226. I do not feel that it is appropriate that I make a formal finding that Miss MacCallum contacted Rosepark to advise that door closers needed to be in place. That is because of (i) her evidence that she thought she would have contacted Rosepark and informed them of the position although she could not specifically recall doing so (ii) the absence of a formal follow up letter and (iii) the absence of any reference to it in the copy of the report sent out 20 April 1999, or the final report of 27 May 1999. However, on the other hand, the management at Rosepark did not seek

²⁰⁵² Margaret MacCallum, 3 March 2010, am, pp20-24;

²⁰⁵³ Margaret MacCallum, 3 March 2010, am, pp24-25;

²⁰⁵⁴ Margaret MacCallum, 3 March 2010, am, pp26-29;

to raise the issue again with the Health Board and Thomas Balmer acknowledged that it was unsatisfactory that this had been left hanging²⁰⁵⁵.

227. Lance Blair, the Health Board's fire safety officer, was not involved in any discussion about the issue of disconnected door closers²⁰⁵⁶.

228. Miss MacCallum said that if she had seen evidence that door closers had been removed she would have raised the matter with the owners of Rosepark²⁰⁵⁷.

17 August 1999²⁰⁵⁸

229. Mr Balmer and Miss Meaney were present at the interim registration inspection on 17th August 1999. Miss MacCallum and Mr Lynch were the inspectors²⁰⁵⁹.

230. In the section of the report entitled "Bedrooms" (p73) it has been recorded "The bedrooms visited were of a satisfactory standard, with evidence of personalisation". There was no mention in the report of the debate at the last inspection about door closers, or indeed any mention of door closers having arisen as an issue²⁰⁶⁰.

231. If disconnected door closers had been seen by the inspectors that would have been recorded in the report²⁰⁶¹. The absence of any such record means that either there were no disconnected door closers or the inspectors did not see those that were. However, there is evidence before the Inquiry that door closers were first removed and disconnected when Brigid Boyle was the Matron (ie. between July 1992 and 1997)²⁰⁶². According to Mr and Mrs Balmer the issue of residents being able to move freely in and out of their rooms was raised with the Health Board inspectors. According to Mr Balmer the inspectors spoke to several residents and had taken the view that there was an entrapment issue. The result of the discussion, according to Mr Balmer, was a decision that closers could be removed in respect of those residents who wished to access their rooms freely²⁰⁶³.

²⁰⁵⁵ Thomas Balmer, 29 April 2010, am, pp117-119; see also chapter 15, paras. 6-10;

²⁰⁵⁶ Margaret MacCallum, 3 March 2010, am, pp30-31;

²⁰⁵⁷ Margaret MacCallum, 3 March 2010, am, p30; cf Production 860A;

²⁰⁵⁸ Production 218, p71;

²⁰⁵⁹ Margaret MacCallum, 3 March 2010, am, pp31-32;

²⁰⁶⁰ Margaret MacCallum, 3 March 2010, am, pp32-33;

²⁰⁶¹ Margaret MacCallum, 3 March 2010, am, pp34-35;

²⁰⁶² Thomas Balmer, 4 May 2010, am, pp27-28;

²⁰⁶³ Thomas Balmer, 29 April 2010, am, pp96-104; Anne Balmer, 15 July 2010, am, pp107-117;

232. There is independent support for Mr and Mrs Balmer's evidence. Brigid Boyle spoke to having been told by Mr Balmer that Edward Hattie had said that it was safe to remove the door closers²⁰⁶⁴.

233. In the circumstances it is likely that there were bedroom doors in Rosepark whose closers had either been removed or disconnected at the time of the interim registration inspection in August 1999.

234. According to Miss MacCallum the inspectors would have checked for evidence of fire drills at the interim inspection²⁰⁶⁵.

9 March 2000

235. The annual registration inspection was preceded by a self audit prepared by Rosepark and dated 16th February 2000²⁰⁶⁶.

236. In section 3 of the self audit, the entry for the date of last inspection was understood by Yvonne Lawton (who attended the inspection with Mr Lynch) to mean that there was either a report or letter of goodwill from the Fire Brigade dated 26 August 1999. There is no equivalent date in the table of section 1(1)(d) visits in production 182, page 3²⁰⁶⁷. Mrs Lawton could not recall what steps were taken, if any to verify the date of inspection. To what the date of 26 August 1999 relates is unclear.

237. The date of the last fire drill in the self audit was given as 23 July 1999. The inspectors may have simply accepted that it occurred²⁰⁶⁸. The self audit also referred to a lecture for all staff in November 1999. The entry in the Fire Register for 23 November 1999 was consistent with what was stated in the self audit²⁰⁶⁹.

²⁰⁶⁴ Brigid Boyle, 16 February 2010, am, pp23-28;

²⁰⁶⁵ Margaret MacCallum, 3 March 2010, am, p36;

²⁰⁶⁶ Production 813;

²⁰⁶⁷ Yvonne Lawton, 2 March 2010, am, pp64-67;

²⁰⁶⁸ Yvonne Lawton, 2 March 2010, am, p70;

²⁰⁶⁹ Production 27, p11; Yvonne Lawton, 2 March 2010, am, pp70-71;

238. In relation to procedures which reduced the risk of fire and diminished its effect when it occurred, the inspectors would probably check in the policy and procedure manual for evidence of the existence of a policy or procedure²⁰⁷⁰.

239. The inspection report recorded as satisfactory the home's maintenance records. Mrs Lawton was shown production 583, page 3, bearing to be a response to an enquiry about electrical maintenance and cover at Rosepark and Croftbank from Alex Ross Electrical. The document contained an offer to provide cover for three years commencing on 1 February 2000, and stated that it covered "Annual inspection of all electrical installations, earth bonding and all portable appliances and plug top testing, inspected as per electrical schedule." Mrs Lawton, if presented with this document, would have been satisfied with the information contained in it²⁰⁷¹.

240. The annual inspection recorded that the bedroom accommodation was of a satisfactory standard. If there had been any problem about the door closers it would have been noted in the report. No such problem was noted²⁰⁷².

241. Mrs Lawton stated that the inspectors would have consulted at least the previous inspection report, and probably the one before that, before they attended the annual inspection. Mrs Lawton believed that, at the inspection in March 2000, she would reconsider the information about door closers narrated in the February 1999 inspection report. In the "Recommendations and Action Points" section of the report, however, there is no mention of door closers.

242. The inference to be drawn from these circumstances is that any evidence of door closers having been removed or disconnected was not seen during the inspection on 9 March 2000.

9 August 2000²⁰⁷³

243. The interim registration inspection report was signed by Mrs Lawton and Miss MacCallum.

²⁰⁷⁰ Yvonne Lawton, 2 March 2010, am, pp71-72;

²⁰⁷¹ Yvonne Lawton, 2 March 2010, am, pp76-78;

²⁰⁷² Yvonne Lawton, 2 March 2010, am, pp78-79;

²⁰⁷³ Production 218, pp36-40;

244. The last record of a fire lecture having occurred for members of staff prior to August 2000 was dated 28 July 1995. The list of attendees clearly showed that not all of the staff were present. The same could be said for the records of earlier lectures in the fire register²⁰⁷⁴. Miss MacCallum thought that the inspectors would expect to see records of annual fire lectures²⁰⁷⁵.

245. The fire register had no entries for fire drills prior to August 2000²⁰⁷⁶. The fire register was used at Rosepark in preference to the Strathclyde Fire Brigade Fire Precautions Log, production 221. According to Sarah Meaney the Health Board had advised that, although it would be preferable for the Fire Brigade document to be used, the home could still use the fire register (production 27)²⁰⁷⁷.

246. In the report itself, under staff recruitment and training (p37), the report stated that there were appropriate policies and procedures in place and that there was evidence of staff receiving ongoing in service education. Mrs Lawton explained that this would have been verified by an examination of a sample of records and speaking to staff²⁰⁷⁸. No issue was raised by the interim inspection concerning door closers²⁰⁷⁹.

247. The section on recommendations and action points (p40) addressed an issue about keeping passageways to fire exits clear. No issue was raised bearing upon staff training or door closers²⁰⁸⁰.

7 February 2001²⁰⁸¹

248. A self audit was prepared in anticipation of the annual registration inspection on 7 February 2001²⁰⁸².

249. The date of last inspection in section 3 of the self audit attracted a date of 28 December 2000²⁰⁸³. There was a visit to Rosepark on that date by Mr Edward Kelly of Strathclyde Fire and Rescue Service. The date on the self audit would

²⁰⁷⁴ Production 27, pp4-5, 7-9; Margaret MacCallum, 3 March 2010, am, pp42-49;

²⁰⁷⁵ Margaret MacCallum, 3 March 2010, am, p49;

²⁰⁷⁶ Production 27, pp16-28; Margaret MacCallum, 3 March 2010, am, pp57-61;

²⁰⁷⁷ Sarah Meaney, 18 February 2010, pm, pp38-39;

²⁰⁷⁸ Yvonne Lawton, 2 March 2010, am, pp89-90;

²⁰⁷⁹ Yvonne Lawton, 2 March 2010, am, pp90-91;

²⁰⁸⁰ Yvonne Lawton, 2 March 2010, am, p92;

²⁰⁸¹ Production 218, p30;

²⁰⁸² Production 1394,

²⁰⁸³ Margaret MacCallum, 3 March 2010, am, pp67-68;

probably been sufficient for the inspectors' purposes; they would not normally have asked what type of inspection had taken place²⁰⁸⁴.

250. At this stage the understanding of both the Health Board and Miss MacCallum was that the Fire Brigade formally inspected the premises annually. However, Miss MacCallum was uncertain whether the inspections involved an examination of evacuation and fire alarm procedures²⁰⁸⁵.

251. In section 4 the self audit was silent on the date of the last fire drill. That was something that the inspectors should have picked up on²⁰⁸⁶.

252. In relation to section 23 of the self audit Miss MacCallum confirmed that the inspectors would be looking for records of procedures. The inspectors did not engage in an assessment as to the suitability or appropriateness of the arrangements made²⁰⁸⁷.

253. As regards training, the inspectors would probably examine 4 or 5 sets of employment records relating to nursing and ancillary staff²⁰⁸⁸. It is, in this respect, instructive to recall from the evidence of Sarah Meaney that, in her experience, after a new member of staff arrived and received their induction there was no further fire awareness training provided to that new member of staff²⁰⁸⁹.

254. The inspection was conducted by Margaret MacCallum and Angela Westrop²⁰⁹⁰.

255. The report of the annual registration inspection recorded that the number of registered beds was now 43²⁰⁹¹.

256. The Fire Register records the occurrence of a fire drill on 29 February 2001, some 9 days after the date of the self audit. If Miss MacCallum had seen the entry in the Fire Register this would not have triggered an enquiry as to the contents of the drill or the personnel involved²⁰⁹². Miss MacCallum accepted that, in order to form a

²⁰⁸⁴ Margaret MacCallum, 3 March 2010, am, pp69-70;

²⁰⁸⁵ Margaret MacCallum, 3 March 2010, am, pp70-72;

²⁰⁸⁶ Margaret MacCallum, 3 March 2010, am, pp72-74;

²⁰⁸⁷ Margaret MacCallum, 3 March 2010, am, pp74-75;

²⁰⁸⁸ Margaret MacCallum, 3 March 2010, am, pp76-77

²⁰⁸⁹ Sarah Meaney, 18 February 2010, pm, p37;

²⁰⁹⁰ Margaret MacCallum, 3 March 2010, am, pp79-80;

²⁰⁹¹ Margaret MacCallum, 3 March 2010, am, p80; Production 218, p30;

²⁰⁹² Margaret MacCallum, 3 March 2010, am, p83;

judgement as to the adequacy of the drill, it would have been essential to find out what was involved²⁰⁹³

257. The bedroom accommodation was described as being of a high standard throughout. No issue was raised in the report concerning door closers, meaning either that there were no difficulties identified by the inspectors or that the rooms visited had doors whose closers had not been removed or disconnected²⁰⁹⁴

258. The recommendations and action points section of the report did not raise any matters of fire safety²⁰⁹⁵.

August 2001

259. Miss MacCallum and Angela Westrop were again the appointed inspectors²⁰⁹⁶.

260. There was only limited inspection of fire safety issues. Miss MacCallum recalled that there had been a decision, the basis for which she could not recall, that certain legislative requirements need only be checked annually. Whatever the basis of the decision, it included fire precautions²⁰⁹⁷.

261. The result was that the inspection was limited to checking the fire extinguishers, and checking that the fire notices were still in place.

262. The report contained no recommendations or action points bearing upon the issue of fire safety²⁰⁹⁸.

7 February 2002

263. The final Health Board annual registration inspection was conducted on 7 February 2002²⁰⁹⁹. It was preceded by the submission of a self audit dated 6 February 2002²¹⁰⁰.

²⁰⁹³ Margaret MacCallum, 3 March 2010, am, p84;

²⁰⁹⁴ Margaret MacCallum, 3 March 2010, am, pp84-85;

²⁰⁹⁵ Margaret MacCallum, 3 March 2010, am, p87;

²⁰⁹⁶ Margaret MacCallum, 3 March 2010, am, p88;

²⁰⁹⁷ Margaret MacCallum, 3 March 2010, am, pp89-90;

²⁰⁹⁸ Margaret MacCallum, 3 March 2010, am, p91;

²⁰⁹⁹ Margaret MacCallum, 3 March 2010, am, p103;

²¹⁰⁰ Margaret MacCallum, 3 March 2010, am, p91;

264. In the self audit document the reference to a satisfactory Firemaster's report or letter of goodwill was ticked. The inspectors would have accepted that without follow up²¹⁰¹.

265. The date of the last inspection bore an inscription that Miss MacCallum did not understand. However, there was a date, 30th November 2001, for the last fire drill which corresponded with an entry in the Fire Register. The record in the Fire Register did not tell a reader anything about how many attended the drill. Miss MacCallum thought (but could not say for sure) that they had asked during the inspection if all staff had attended, and that those who could not attend should have an opportunity to attend at some other date²¹⁰².

266. The self audit referred to a fire safety video and questionnaire for all staff. The inspectors would not have looked at the video. They had insufficient time. By not doing so Miss MacCallum accepted that they probably could not consider the sufficiency and suitability of the fire drills, practices and procedures to be followed in the event of fire²¹⁰³. However, Miss MacCallum was not trained to identify any deficiencies in the contents of the fire safety video²¹⁰⁴.

267. In the inspection report there were no concerns raised about staff training (save in relation to the manner in which references were obtained)²¹⁰⁵.

268. In relation to bedrooms no issue was raised concerning the disconnection or removal of door closers²¹⁰⁶.

269. The only recommendations in the report were concerned with the matter of employee references²¹⁰⁷.

270. In as much as the inspection report raised no concerns about staff training, Miss MacCallum was asked to confirm certain entries in the Staff Training Register

²¹⁰¹ Margaret MacCallum, 3 March 2010, am, pp91-92;

²¹⁰² Margaret MacCallum, 3 March 2010, am, pp92-94; Production 27, p30;

²¹⁰³ Margaret MacCallum, 3 March 2010, am, pp94-96

²¹⁰⁴ Margaret MacCallum, 3 March 2010, am, p97;

²¹⁰⁵ Margaret MacCallum, 3 March 2010, am, p104;

²¹⁰⁶ Margaret MacCallum, 3 March 2010, am, p104;

²¹⁰⁷ Margaret MacCallum, 3 March 2010, am, p105;

(production 240). The record of training attendance on page 5 included reference to fire prevention in relation to courses on 3 January, 7 January, and 1 February, 2002. The numbers in attendance did not appear to represent the whole of the staff. The inspectors would not, in any event, explore what was involved in the courses. The next record of a fire prevention course, in April 2001, was on page 12. The numbers in attendance did not represent the whole of the staff. Pages 22 and 23 recorded the occurrence of the staff training in November 1999 which was replicated in the Fire Register²¹⁰⁸.

271. In view of the contents of the Fire Register and the Staff Training Register the inspectors could not be confident that sufficient fire training was being given to members of staff at Rosepark. A vigorous inspection regime might be expected to avoid the situation in which the 4 members of staff on duty on the night of the fire had not done a night shift fire drill²¹⁰⁹. Where there were references in employment records to “Fire awareness training will be ongoing”²¹¹⁰ the inspectors would not explore further²¹¹¹. Finally, a sample of employment records (for Irene Richmond, Eleanor Ward and Ann Daly²¹¹²) all disclosed an absence of recorded fire safety training – far less annual training – after November 1999²¹¹³.

272. Viewing the matter from 2002, Miss MacCallum accepted that the Fire Register (production 27) essentially contained reference to fire lectures and fire alarm test rather than drills. Had the matter been more carefully examined that would have become apparent to the inspectors. Closer questioning in relation to the nature and content of the drills would have revealed that they did not extend to all members of staff, including night staff. An appropriate fire drill would be one that included such staff²¹¹⁴.

Conclusions from the Inspection Process

²¹⁰⁸ Margaret MacCallum, 3 March 2010, am, pp108-120;

²¹⁰⁹ Margaret MacCallum, 3 March 2010, am, pp120-121;

²¹¹⁰ Cf Production 243, p19;

²¹¹¹ Margaret MacCallum, 3 March 2010, am, pp122-124;

²¹¹² Productions 316, 401, and 445 respectively;

²¹¹³ Margaret MacCallum, 3 March 2010, am, pp125-129; cf. Sarah Meaney, 18 February 2010, pm,

p37;

²¹¹⁴ Margaret MacCallum, 3 March 2010, pm, pp6-8;

273. The inspection process revealed only one instance in which the inspectors identified that a door closer (or closers) had been disconnected.

274. The evidence, however, is that door closers were removed or disconnected from a relatively early time in the history of Rosepark, and that remained the position after February 1999.

275. If the Health Board had a policy about the propriety of leaving bedroom doors open at night, it was not one that was known to the inspectors.

276. In spite of the Health Board's own guidance on the frequency of fire drills, the lack of recorded drills at Rosepark was never raised as an issue in the recommendations that followed every inspection report.

277. Lack of recorded fire drills ought to have become self-evident over time from inspection of the fire log, production 27.

278. Lack of ongoing fire training was never identified in any of the inspection reports. By inference it was not identified by the inspectors.

279. There is no evidence that the Health Board gave formal consideration to what constituted a suitable and sufficient procedure to be followed in the event of a fire alarm sounding and briefed its inspectors on the procedure to be enforced. The inspection regime was not geared towards the identification of discrepancies between published fire notices and the procedure actually followed at Rosepark.

280. The inspectors were not, in any event, trained to apply particular standards in inspecting matters of fire safety before they started inspecting nursing homes.

281. There was a widespread view amongst the inspectors that Rosepark was the subject of regular inspection by Strathclyde Fire and Rescue Service. That view was misconceived. It may explain why the Health Board's approach to inspection of fire safety matters between 1992 and 2002, particularly under reference to Regulation 13 of the 1990 Regulations, was superficial. The approach of the Health Board was not advised by either the clear setting of standards of fire precautions to be expected of nursing home management, or appropriate training of Health Board inspectors in the

standards so set. It was, therefore, an approach which was unlikely to secure that fire safety was being managed properly by the management at Rosepark

Note to Chapter 26

At DS5 and at Chapter 45(5) I deal with the question of whether there were defects in the system of working by the Health Board as regards the Regulation of nursing homes which contributed to the deaths. There are substantial submissions on behalf of Lanarkshire Health Board. I deal with them insofar as they relate to this Chapter and DS5 in my note to Chapter 45(5).

CHAPTER 27: THE CARE COMMISSION AND ITS INTERACTION WITH ROSEPARK 2002-2004

The purpose of this chapter is to examine (i) the origins of the legislation responsible for constituting, and determining the functions of, the Care Commission, (ii) the terms of the legislation and the National Care Standards (under reference to which Care Homes such as Rosepark were inspected), (iii) practical issues arising from the establishment of the Care Commission, (iv) the Care Commission's inspection methodology, and (v) the Care Commission's inspections of Rosepark.

In view of the evidence set out in this chapter, I have made a determination of certain facts which were relevant to the circumstances of the deaths at Rosepark in terms of section 6(1)(e) of the 1976 Act. These are set out at OF2 of my findings under section 6(1) of the 1976 Act in Chapter 2 hereof and at Chapter 46(2) hereof.

1. The Regulation of Care Project

1. Elizabeth Hunter is the Director of Equality, Social Inclusion and Sport within the Scottish Government.²¹¹⁵
2. Mrs Hunter gave detailed evidence about the Regulation of Care Project and the policy underlying the legislation and national care standards.
3. In the summer of 2000 Mrs Hunter, then Deputy Director for Community Care, headed a team in the Scottish Executive which was responsible for implementing the proposals in the White Paper ("Aiming for Excellence – Modernising Social Work Services in Scotland"²¹¹⁶) to set up the Scottish Commission for the Regulation of Care ("the Care Commission")²¹¹⁷.
4. The team led by Mrs Hunter, known as the regulation of care team, was staffed by professional and policy civil servants, and also consultants and secondees from the Health Boards and local authorities which had hitherto been responsible for regulating care²¹¹⁸.
5. The regulation of care team was responsible for preparing the primary and subordinate legislation, establishing the Care Commission and the Scottish Social

²¹¹⁵ Elizabeth Hunter, 9 June 2010, am, pp90-91;

²¹¹⁶ Production 1383;

²¹¹⁷ Elizabeth Hunter, 9 June 2010, am, pp91-92, 94-95;

²¹¹⁸ Elizabeth Hunter, 9 June 2010, am, pp92-93;

Services Council, making appointments to the new bodies and securing a headquarters and area offices. The team was also responsible for preparing the National Care Standards against which care services would be inspected²¹¹⁹.

6. The White Paper was published before devolution in March 1997²¹²⁰. One of the drivers for change was that residential homes and nursing homes were regulated by different bodies. There was a perceived need to achieve consistency in the approach to care services and their regulation²¹²¹. In addition, local authorities ran but also regulated residential homes. There was perceived to be a conflict of interest.

7. The objective, in what was mainly a government sponsored initiative, was to establish an independent system that regulated all homes equally²¹²², and also to put in place a system of care regulation designed to meet the interests (including dignity, choice and independence) of the users of services rather than the providers²¹²³.

8. Perceived deficiencies in the current system of care regulation were set out in chapter 5 of the White Paper. The point was made that residential care homes in the voluntary and private sectors were regulated by local authorities and nursing homes by the Health Boards. Since there were 32 local authorities and 15 health boards in Scotland standards inevitably varied. This, in turn, made for a problem of lack of integration because it was difficult for home owners to provide nursing home services and residential care home services from one establishment²¹²⁴.

9. Paragraph 5.6 of the White Paper contained the proposal to establish the Care Commission²¹²⁵. It noted that the proposals in the White Paper built on the report of a working group on residential care home registration procedures which had a widely drawn membership. Paragraph 5.7 of the White Paper proposed that the Care Commission be responsible for the registration, inspection and enforcement of standards in nursing homes²¹²⁶.

²¹¹⁹ Elizabeth Hunter, 9 June 2010, am, pp95-97;

²¹²⁰ Elizabeth Hunter, 9 June 2010, am, p98;

²¹²¹ Elizabeth Hunter, 9 June 2010, am, p104;

²¹²² Elizabeth Hunter, 9 June 2010, am, pp99-100;

²¹²³ Elizabeth Hunter, 9 June 2010, am, pp100-102;

²¹²⁴ Elizabeth Hunter, 9 June 2010, am, pp106-110; Production 1383, paras. 5.1-5.5;

²¹²⁵ Elizabeth Hunter, 9 June 2010, am, p110;

²¹²⁶ Elizabeth Hunter, 9 June 2010, am, pp111-112;

10. Paragraph 5.9 of the White Paper proposed that the Care Commission would have its own team of inspectors and would decide how they should be deployed to achieve good geographical coverage. The inspectorate team would consist of people with skills and qualifications from social work and other relevant disciplines including health²¹²⁷.

11. Paragraph 5.10 of the White Paper proposed the establishment a National Care Standards Committee with the task of developing, through consultation, a series of national standards for the services to be regulated by the Care Commission²¹²⁸.

12. Paragraph 5.13 of the White Paper proposed that Health Boards would cease to have responsibility for the regulation of nursing homes with the creation of the Care Commission, but both would wish to liaise closely on matters of common interest. In fact, a number of Health Board inspectors came to be employed as inspectors by the Care Commission²¹²⁹.

13. The objective was for care services to meet, and be focused on, the needs of users of services, and for the system of regulation to reflect that objective²¹³⁰.

14. Fire safety was not mentioned in the White Paper. This was because, as regards fire safety, the existing arrangements were expected to be transferred to the new system. There was no understanding that there was any need for things to be done differently as far as fire safety was concerned. If there were any concerns about fire safety issues one would have expected such concerns to have been reflected in the White Paper²¹³¹.

15. A Consultation Paper was prepared by the Scottish Executive²¹³², and the proposals were put out to consultation in about December 1999²¹³³.

16. In relation to fire safety it was not the intention of government that the establishment of the Care Commission would result in any diminution in the power to

²¹²⁷ Elizabeth Hunter, 9 June 2010, am, p113;

²¹²⁸ Elizabeth Hunter, 9 June 2010, am, pp113-114;

²¹²⁹ Elizabeth Hunter, 9 June 2010, am, pp116-117;

²¹³⁰ Elizabeth Hunter, 9 June 2010, am, pp119-120;

²¹³¹ Elizabeth Hunter, 9 June 2010, am, pp120-122;

²¹³² Production 1384;

²¹³³ Elizabeth Hunter, 9 June 2010, am, pp123-125;

regulate matters of fire safety. The understanding and expectation was that the existing system was being transferred to the Care Commission, and that other additional improvements were being made so that the system of regulation was more coherent and integrated²¹³⁴.

17. Paragraph 13 of the Consultation Paper included the statement:

“The legislation will avoid tight prescription of the functions of the Commission...and will be as enabling and flexible as possible...”.

18. The underlying intention was to encourage the Care Commission to think more widely about what it was doing and to focus on the interests of the user, rather than simply implement rules set out for it. The Care Commission was being established, not because there were any particular complaints about the existing regulatory regime for nursing homes, but because of a change in emphasis in how regulation should be undertaken²¹³⁵.

19. In particular, there were no concerns about the legislation underpinning the role of Health Boards in the regulation of fire safety in nursing homes²¹³⁶

20. Mrs Hunter’s understanding at this time was that the Fire Services were responsible for fire safety, nursing homes were assessed by them , fire certificates were exhibited, and the Health Board inspectors simply satisfied themselves that this was happening²¹³⁷

21. Paragraph 47 of the Consultation Paper referred to the proposal to institute a procedure for completion of a self-evaluation form, to be completed (at least in terms of the proposal) every 6 months. The contents of the form would initially be set by the Scottish Executive based on work of the national care standards committee. This was intended to encourage care providers to review and assess their services against the National Care Standards; self-evaluation was an important part of the new regulatory process²¹³⁸.

²¹³⁴ Elizabeth Hunter, 9 June 2010, am, pp128-129;

²¹³⁵ Elizabeth Hunter, 9 June 2010, am, pp129-130, 136

²¹³⁶ Elizabeth Hunter, 9 June 2010, am, p137;

²¹³⁷ Elizabeth Hunter, 9 June 2010, am, pp141-142;

²¹³⁸ Production 1384, para. 47; Elizabeth Hunter, 9 June 2010, pm, pp3-4;

22. Draft National Care Standards were also put out to consultation. They were prepared, under the auspices of the National Care Standards Committee (which first met in the late summer of 1999²¹³⁹), through different working groups for different types of service. The national care standards were to be taken into account under the new arrangements for regulating and inspecting care services. They set out the quality of care that would form the basis for the registration and inspection process²¹⁴⁰.

23. The national care standards were non-statutory, and were, to some extent, aspirational in the sense that they set out what providers should be aiming for²¹⁴¹.

24. No one with a fire safety background sat on the National Care Standards Committee²¹⁴² or the older persons' working group²¹⁴³. The reason for this was that it was not expected that the National Care Standards would deal with fire safety. Mrs Hunter's understanding was that the existing system for dealing with fire safety would run on and would not need to be covered by the national care standards. There were, however, references to fire safety in the draft National Care Standards, and the draft standards had been the subject of consultation with a wide range of people²¹⁴⁴.

25. As far as Mrs Hunter could recall fire safety did not come up as an issue in the consultation process. That accorded with the recollection of Ronald Hill, who also sat on the National Care Standards Committee²¹⁴⁵. Ronald Hill, Director of Inspection Services at the Care Commission, was then Head of the Edinburgh and Lothians Inspection Service²¹⁴⁶. The National Care Standards Committee consulted with the Health Boards. As far as Mrs Hunter could recall there was no discussion about fire safety regulation. Nor would she have expected such a discussion because it was not the focus of the committee. It was not anticipated that the National Care Standards would set out standards for fire safety issues²¹⁴⁷.

²¹³⁹ Elizabeth Hunter, 9 June 2010, pm, p21;

²¹⁴⁰ Elizabeth Hunter, 9 June 2010, pm, pp8-10;

²¹⁴¹ Elizabeth Hunter, 9 June 2010, pm, pp12-13;

²¹⁴² Production 1385, p94

²¹⁴³ Production 1385, p96

²¹⁴⁴ Elizabeth Hunter, 9 June 2010, pm, pp15-19;

²¹⁴⁵ Ronald Hill, 25 June 2010, pm, pp68-72;

²¹⁴⁶ Ronald Hill, 25 June 2010, am, p5;

²¹⁴⁷ Elizabeth Hunter, 9 June 2010, pm, pp20-26;

26. Mrs Hunter's understanding, perhaps surprisingly, was that the Health Boards were not responsible, as regulators, for fire safety. As a result, it was anticipated that the Care Commission would simply be checking that certain things – such as that residents knew what to do if there was a fire, or if there were fire drills and that they were recorded - were happening. It was not being given statutory responsibility for the fire safety of care homes²¹⁴⁸.

27. Mrs Hunter's understanding, which appears to have extended more broadly than the National Care Standards Committee, was that before a care home opened the Fire Service would check on its suitability to be opened to the public. Sometimes there were non-statutory inspections thereafter, perhaps in tandem with the Health Board's own inspections. The advice Mrs Hunter was receiving was that steps would be taken to ensure that the Fire Brigade remained comfortable with the arrangements that had been approved at first registration²¹⁴⁹.

28. No specific advice was sought at the consultation stage about the legislative functions of the Fire Services and Health Boards in relation to fire safety²¹⁵⁰.

29. There was a Bill team, responsible to Mrs Hunter, which prepared, and took through the Regulation of Care (Scotland) Bill²¹⁵¹

30. In the final analysis it appears to have been the understanding of the regulation of care team that *in practice* the health board inspectors worked closely with the Fire Services in considering any fire safety issues. When it came to drafting the legislation, that understanding had the consequence that it was not felt necessary to be as specific about fire safety issues in the 2002 regulations as was the wording in, particularly, regulation 13 of the Nursing Homes Registration (Scotland) Regulations 1990²¹⁵² even if, on the face of it, regulation 13 of the 1990 Regulations appeared to require rather more than the process of checking that Mrs Hunter contemplated for the Care Commission inspectors²¹⁵³.

²¹⁴⁸ Elizabeth Hunter, 9 June 2010, pm, pp30-32;

²¹⁴⁹ Elizabeth Hunter, 9 June 2010, pm, pp77-78

²¹⁵⁰ Elizabeth Hunter, 9 June 2010, pm, pp32-33;

²¹⁵¹ Elizabeth Hunter, 9 June 2010, pm, pp49-50;

²¹⁵² Elizabeth Hunter, 9 June 2010, pm, pp68-78;

²¹⁵³ Elizabeth Hunter, 9 June 2010, pm, p70;

31. Mrs Hunter thought that her team's assumption was that, while the Fire Services did not re-inspect care homes annually, they were a source of advice. This was, of course, correct²¹⁵⁴ If the Fire Services had any concerns they would be working with care home owners to resolve them, there might in some areas be some re-inspection work, and fire prevention officers would look at particularly vulnerable buildings. But the regulation of care team was not looking at fire legislation. Fire safety simply was not being focused on by the team²¹⁵⁵. It was attempting to "reflect the previous arrangements in the new arrangements". They were not explicitly or deliberately changing those arrangements in any way²¹⁵⁶.

32. The 2002 Regulations were put out to consultation and no concerns were raised on any matters of fire safety²¹⁵⁷.

33. Ronald Hill sat on the advisory group which commented on the draft Regulations²¹⁵⁸. The advisory group included people from the Health Boards²¹⁵⁹. Mr Hill echoed the view that there was no intention to innovate on the existing arrangements for the regulation of fire safety²¹⁶⁰.

34. There would appear to be no material disagreement between those parties interested in this part of the evidence regarding the historical background to the legislation summarised in the next section of this chapter.

2. Synopsis of Legislation

1. The outcome of these various deliberations was the Regulation of Care (Scotland) Act 2001 ("the 2001 Act")²¹⁶¹.
2. The 2001 Act received Royal Assent on 5th July 2001.
3. Section 1 made provision for the constitution of the Care Commission.

²¹⁵⁴ Fire Services Act 1947, section 1(1)(f), production 1829;

²¹⁵⁵ Jacqueline Roberts, 1 June 2010, am, p58;

²¹⁵⁶ Elizabeth Hunter, 10 June 2010, am, pp28-30, 36-44;

²¹⁵⁷ Elizabeth Hunter, 10 June 2010, am, pp44-47, 74;

²¹⁵⁸ Ronald Hill, 25 June 2010, am, pp15-17;

²¹⁵⁹ Ronald Hill, 25 June 2010, am, p28;

²¹⁶⁰ Ronald Hill, 25 June 2010, am, pp18-20;

²¹⁶¹ Production 1835;

4. Schedule 1 laid down the general powers of the Care Commission. These included the power to co-operate with other persons in matters relevant to the exercise of its functions²¹⁶².
5. In section 2 of the 2001 Act a “care service” was defined as including a “care home service”. In turn a “care home service” was defined as “a service which provides accommodation, together with nursing, personal care or personal support, for persons by reason of their vulnerability or need”.
6. Rosepark was just such a care home service.
7. Section 5 was concerned with *National Care Standards*. Having consulted as appropriate the Scottish Ministers were directed to publish national care standards applicable to care services.
8. Section 5(3) was an important provision. It directed that *the national care standards shall be taken into account by the [Care] Commission in making any decision under this Part [1]*.
9. Section 7(1) provided that a person who sought to provide a care service was to make an application to the Commission for registration of the service.
10. Section 9 conferred on the Commission the power to grant or refuse such an application.
11. Section 10 made provision for the giving by the Commission of an improvement notice. Section 12 permitted the Commission, at any time after expiry of the period specified in an improvement notice, to propose to cancel the registration of a care service.
12. Section 13 conferred on the Commission the power to vary or remove an existing condition on registration, or impose an additional condition.
13. Section 18 prescribed a procedure for urgent cancellation of registration by summary application to the Sheriff, with intimation of any such application to the relevant Health Board.

²¹⁶² Schedule 1, para. 6(a);

14. Section 25 was concerned with inspections. Thus an authorised person was permitted to inspect any care service. In relation to a care home service section 25(3) required that the power of inspection be exercised (a) at least twice in the initial year of registration, and (ii) at least twice per annum thereafter, at least one of the inspections to be unannounced.

15. Section 25(6) was concerned with the process of inspection. It permitted inspectors appointed by the Care Commission to make any examination into, and conduct any interview as regards the state of management of the service, and the treatment of persons cared for by the service. It also permitted appointed inspectors to interview management, staff and persons cared for by the care service. Further powers relating to the process of inspection were contained in succeeding provisions of section 25.

16. Sections 28 and 29 were concerned with the making of Regulations relating to the Commission and to care services. Section 29, in particular, provided that regulations could make provision as to the persons who were fit to provide, or act as manager in relation to, a care service. Regulations could also make provision for the making of returns to the Commission.

17. Section 30 empowered the Scottish Ministers to make a scheme for the transfer of Health Board employees (and others) who were engaged in ongoing work.

18. Section 59 contained a statement of General Principles under which the Scottish Ministers and the Commission were to exercise their functions, namely (i) the enhancement of the safety and welfare of all persons who used care services, (ii) the promotion of the independence of those persons, and (iii) the promotion, also, of diversity in the provision of care services.

19. In schedule 4 there was contained a schedule of repeals. The first Act of Parliament on the list was the Nursing Homes (Registration) (Scotland) Act 1938.

20. The power to create Regulations under section 29 was duly exercised. The product of that exercise was the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002 (“the 2002 Regulations”)²¹⁶³. The 2002

²¹⁶³ Production 1871;

Regulations came into force on 1st April 2002. The 2002 Regulations set out the requirements which had to be complied with by providers of care services under the 2001 Act.

21. In passing the Regulations the opportunity was taken to make provision for standards of fitness of providers of care services (regulation 6), the fitness of managers (regulation 7), the fitness of employees (regulation 9), the fitness of premises (regulation 10) and the provision of facilities (regulation 12).

22. The opportunity was also taken in regulation 19, under the heading “Records”, to specify the statutory responsibilities of the provider of services relative to fire safety. Thus was the provider directed to keep a record of “the procedure to be followed in the event of a fire or other emergency; all fire drills and alarm tests which have been conducted, and any maintenance of equipment which is used in the provision of the service.”

23. The National Care Standards in force at the time of the fire at Rosepark²¹⁶⁴ were statutory only in the sense that they were to be taken into account by the Care Commission in taking any decision under part 1 of the 2001 Act. Since that included the power to register, inspect, and serve improvement and condition notices, the practical effect of section 5 of the 2001 Act was to cause the national care standards to become the tool of the inspection process (as the discussion of the Care Commission methodology will explain).

24. So far as relevant for present purposes the National Care Standards provided as follows:

25. *Standard 3: You have full information on your legal position about your occupancy rights in a care home. You are confident that the home is run in line with legal requirements for health and safety, fire safety, and food hygiene...4. You can ask for confirmation that the home meets with all the relevant legislation and guidance relating to fire, health and safety procedures...and risk management.*

²¹⁶⁴ Production 1737;

26. *Standard 4: Your environment will enhance your quality of life and be a pleasant place to live...9. You receive information about what to do in the event of a fire or other emergency.*

27. *Standard 5: You experience good quality support and care. This is provided by management and staff whose professional training and expertise allows them to meet your needs. The service operates with all necessary legal requirements and best practice guidelines...1. You can be assured that the home has policies and procedures which cover all legal requirements, including...fire safety.*

28. *Standard 9: You take responsibility for your own actions, secure in the knowledge that the home has proper systems in place to protect your interests...3. You can discuss risks with staff.*

29. The terms of regulation 19 of the 2002 Regulations impose less stringent fire safety regulatory functions than were prescribed by regulation 13 of the Nursing Homes Registration (Scotland) Regulations 1990.

3. Practical Issues arising from the establishment of the Care Commission

a. Jacqueline Roberts was appointed Chief Executive of the Care Commission in October 2001²¹⁶⁵

b. Although, prior to her appointment, Mrs Roberts had regular contact with the regulation of care team, she had no involvement in the creation of the 2002 Regulations²¹⁶⁶.

c. Mrs Roberts was appointed with a skeleton staff. In the period leading up to April 2002, there was no input from any fire specialist in relation to matters of fire safety²¹⁶⁷.

d. The main challenge facing the Chief Executive in preparing the Care Commission to assume its regulatory functions in April 2002 was to transfer members of staff from 44 different employers into one national body with all the human

²¹⁶⁵ Jacqueline Roberts, 1 June 2010, am , pp2-3;

²¹⁶⁶ Jacqueline Roberts, 1 June 2010, am, p57;

²¹⁶⁷ Jacqueline Roberts, 1 June 2010, am, pp59-61;

resource implications associated with that. There was no consistency of practice or approach across local authorities and Health Boards. Mrs Roberts stated that she told the relevant Minister that the new organization would not be “perfect on day one”. It would be necessary to work hard to establish nationally consistent practice in the first two years²¹⁶⁸.

e. Mrs Roberts also spoke of difficulties in retention after the Care Commission was established on 1st April 2002 as a result of the Scottish Government making available a voluntary severance package for employees of previous regulators. She explained that between April and September the Care Commission lost about 25% of its experienced staff²¹⁶⁹.

f. Ronald Hill echoed the kinds of challenges described by Mrs Roberts. He spoke of the arrangements that were made to prepare for a new regime of inspection. Prior to April 2002 a group of officers, including Elizabeth Norton and himself, got together and examined existing practice in the registration and inspection services across the country. They were looking to see how the various disparate approaches, across 15 Health Boards and 32 local authorities, could be brought together in such a way as to create a single national approach. There was not a great deal of time to achieve this. There was no effective shadow period. Mr Hill and others were still employed by their previous employers while these discussions took place.²¹⁷⁰

g. During the first year of the Care Commission’s operation an educational programme and an organizational programme were developed so that – as Mr Hill put it – “we could begin to look at how the Care Commission would inspect”. What they assist in that process were the 2002 Regulations and the National Care Standards²¹⁷¹. The process took time to put in place and was an ongoing programme over at least the first year of the Care Commission (2002/2003) and beyond²¹⁷².

h. The only annual inspection to take place at Rosepark prior to the fire fell within that first year of the Care Commission’s operation.

²¹⁶⁸ Jacqueline Roberts, 1 June 2010, am, pp63-65;

²¹⁶⁹ Jacqueline Roberts, 1 June 2010, am, pp65-67;;

²¹⁷⁰ Ronald Hill, 25 June 2010, am, pp9-10;

²¹⁷¹ Ronald Hill, 25 June 2010, am, pp12-13;

²¹⁷² Ronald Hill, 25 June, 2010, am, p10

i. Between 2002 and 2004, there were no arrangements in place between the Care Commission and Fire Brigades regulating the relationship between them from a fire safety point of view. They had started a process of developing a memorandum of understanding covering respective roles and responsibilities, and how the two organisations could work together. Ms Norton conceived that this was an area which had not been left as clear as it might have been by the 2001 Act. The memorandum was a way of formalising contact²¹⁷³.

j. John Russell of the Community Fire Safety Department of Strathclyde Fire and Rescue Service, gave evidence which backed up the existence of contact between the Care Commission and the Fire Brigade between 2002 and the fire. He recalled attending a meeting held in Paisley at the instance of the Care Commission some 6-9 months after it was established. The meeting was attended by representatives of the Care Commission, fire safety officers of Strathclyde Fire and Rescue Service, and someone representing HM Fire Inspectorate. Mr Russell thought that the meeting had been chaired by Liz Norton²¹⁷⁴.

k. This was an initial meeting at which the fire officers sought to ensure that the Care Commission had some understanding of the considerable risk of fire within nursing homes. An explanation was being given about how the Care Commission would be going about discharging the duties previously discharged by the Health Boards. After the meeting the Care Commission representatives agreed to report back to Head Office in Dundee and to maintain a dialogue. That dialogue eventually resulted in the memorandum of understanding²¹⁷⁵.

4. The Inspection Methodology

1 Elizabeth Norton was Regional Manager for the Central West Region of the Care Commission and, latterly, Director of Adult Services Regulation²¹⁷⁶.

2 Ms Norton gave detailed evidence about the inspection methodology devised for the Care Commission.

²¹⁷³ Elizabeth Norton, 26 April 2010, am, pp71-72;

²¹⁷⁴ John Russell, 9 August 2010, pm, pp70-71;

²¹⁷⁵ Production 1382; John Russell, 9 August 2010, pm, pp71-75;

²¹⁷⁶ Elizabeth Norton, 22 April 2010, pm, pp79-80, 83;

3 From November 2001 Ms Norton, who was then employed by South Lanarkshire Council as Head of Registrations and Inspections, was appointed to lead the project team which was to develop an inspection model for the Care Commission²¹⁷⁷.

4 Ms Norton was involved in the generation of a pre-inspection return and a self-evaluation document for care homes²¹⁷⁸. They were part of the method of inspection of care homes which was developed under reference to the National Care Standards which had been available for some months prior to the assumption by the Care Commission of its responsibilities on 1st April 2002. The methodology was also reflect the broad policy of the Regulation of Care (Scotland) Act 2001 (“the 2001 Act”).

5 It was, according to Ms Norton, broad government policy that the Care Commission should take a proportionate approach to inspection. In relation to care homes this approach involved not just looking at such matters as the building, and the number of staff, but also the experience of the people living there. That was the focus of the National Care Standards²¹⁷⁹.

6 The approach being introduced was reflected in a passage about the development of the National Care Standards in paragraph 19 of the consultation paper, Draft National Care Standards²¹⁸⁰, which stated this:

“Drawing up Standards which move away from a more traditional reliance on monitoring process issues, records and the fabric of buildings has proved challenging”

Moving away from that traditional approach was what underpinned the 2001 Act, the 2002 Regulations, and the National Care Standards themselves²¹⁸¹.

7 The traditional approach focused on physical standards and was prescriptive. It could result in an apparently well constructed and organised home which did not

²¹⁷⁷ Elizabeth Norton, 22 April 2010, pm, pp82-83; 26 April 2010, am, p2;

²¹⁷⁸ Elizabeth Norton, 22 April 2010, pm, pp88-89;

²¹⁷⁹ Elizabeth Norton, 22 April 2010, pm, pp89-91;

²¹⁸⁰ Production 1385, p5;

²¹⁸¹ Elizabeth Norton, 26 April 2010, am, pp5-6;

necessarily translate into a similar level of care. The new approach was to focus on the experiences of people²¹⁸².

8 According to Ronald Hill, Director of Inspection Services at the Care Commission, the new approach also advised the nature and extent of the training of inspectors. They were trained social workers and nurses, not trained firefighters. Mr Hill would not expect the inspectors to have the kind of knowledge that would lead them to be able to make an assessment of the quality of an evacuation plan, or have the knowledge of what was best practice in relation to fire safety²¹⁸³.

9 Asked for her opinion on the extent, if any, to which this new approach affected the depth in which issues such as fire safety would be examined by inspectors, Ms Norton replied that in general terms inspection was a process of verification and sampling. It could not possibly look in depth at every single matter described in the National Care Standards. There was always, therefore, an element of risk assessment prior to any inspection in determining whether there were any obvious risk factors on the basis of what was contained in the return and self-evaluation. The Care Commission's remit was very much to focus on the experiences of people as opposed to what Ms Norton termed inputs and physical standards. The Care Commission relied on outside expertise in matters of fire safety. It was the existing practice of local authorities (in respect of residential homes run by them) to look for a letter of comfort relating to fire safety matters when a home was licensed, and for an updated letter to reflect goodwill visits after first registration. Ms Norton had experience of such a practice in local authorities and in the Care Commission, and had seen such letters many times²¹⁸⁴.

10 The development of the pre-inspection return and the self-evaluation document was undertaken in collaboration with people already actively involved in the regulation of residential homes, including Health Boards and local authorities. The resultant documents gave prominence to the concept of self-evaluation. Government

²¹⁸² Elizabeth Norton, 26 April 2010, am, pp6-10; Production 1385, para. 33;

²¹⁸³ Ronald Hill, 25 June 2010, am, pp37-39;

²¹⁸⁴ Elizabeth Norton, 26 April 2010, pp15-20;

papers at the time emphasised the importance of self-evaluation as a vital part of any regulatory regime²¹⁸⁵.

11 The pre-inspection return and self-evaluation documents were intended to be returned to the Care Commission. This enabled the Care Commission Officer to plan the inspection, its duration, the number of officers required, and which standards would be covered by whom. There was an annual determination at a strategic national level by the Care Commission about which standards would be covered in a service. However, the Care Commission officers had a discretion to inspect other standards of they felt that was required. Care Commission officers were expected to make judgments, on the basis of the return and self-evaluation, about whether there were any particular matters which indicated that a particular standard or area should be covered at the inspection²¹⁸⁶.

12 The purpose of the inspection was to verify the information contained in the Pre-inspection return and self-evaluation²¹⁸⁷. The pre-inspection return for the first annual inspection by the Care Commission at Rosepark begins at p.34 of Production 818.

13 It was envisaged by those who prepared the inspection documentation that officers would verify information on staff training in the pre-inspection return by examining a sample of records, by observation and by interviewing staff.²¹⁸⁸ It was the understanding of the Care commission that throughout Scotland Fire Brigades continued to attend care homes for the purpose of fire safety inspections and advise on matters of fire safety. Care Commission inspectors were informed lay people rather than experts in fire safety. Regulation 19(3) of the 2002 Regulations imposed a duty upon the service provider to keep a record of fire and other emergency procedure, and of all fire drills or alarm tests that had been conducted. It did not seek to impose any minimum standard, training obligation or appropriate procedure. Inspectors were therefore enjoined only to verify the existence of procedures, not to examine and report upon their adequacy (a task for which they were not trained). Likewise, they required to be satisfied only of the existence of an up to date risk assessment, not to assess its suitability. Care Commission had no policy requiring that bedroom doors

²¹⁸⁵ Elizabeth Norton, 22 April 2010, pp92-93;

²¹⁸⁶ Elizabeth Norton, 22 April 2010, pm, pp96-98;

²¹⁸⁷ Elizabeth Norton, 22 April 2010, pm, p99;

²¹⁸⁸ Elizabeth Norton, 26 April 2010, am, pp28-33;

needed to be closed at night. The expertise of inspectors did not extend into electrical matters. The pre-inspection return required that the home confirm the existence of a current maintenance contract for, *inter alia*, electrical appliances. It was not intended that inspectors go behind this, merely that it confirmed that evidence of such a contract existed.

14 In Section Four of the Pre-Inspection return for Rosepark²¹⁸⁹ question 15 asked whether there was a record of fire safety drills, checks and training compliant with Fire Brigade Guidance. The purpose of this question was to allow for verification that the standards prevailing at the time of first registration were being maintained²¹⁹⁰.

15 Care Commission inspectors would routinely look to see that fire extinguishers were being serviced and they might well ask selected members of staff if, during induction, they had been acquainted with the evacuation procedure and where the fire exit points were situated²¹⁹¹. What was uppermost in the thinking at this time was care for the residents²¹⁹². However, the fact that the National Care Standards did articulate certain expectations regarding fire safety justifies the acceptance of the Care Commission that a greater emphasis could have been placed on the process of assessment of fire safety procedures²¹⁹³.

16 The Fire Brigade Guidance referred to in the return referred to guidance by the local Fire Service. Production 221, the Fire Precautions Log Book, appears to have been the guidance operating in Strathclyde at the time²¹⁹⁴

17 As regards the procedure for evacuation in the event of fire the most pressing point for the Care Commission inspectors was whether there was such a procedure, whether it was available and whether staff were aware of it. As regards training, there would not be a close analysis of what the training involved, but rather confirmation that there was training of staff²¹⁹⁵.

²¹⁸⁹ Production 818, p58;

²¹⁹⁰ Elizabeth Norton, 26 April 2010, am, p35;

²¹⁹¹ Elizabeth Norton, 26 April 2010, am, pp36-37;

²¹⁹² Elizabeth Norton, 26 April 2010, am, p61;

²¹⁹³ Care Commission Submissions, para. 22;

²¹⁹⁴ Elizabeth Norton, 26 April 2010, am, pp42-47;

²¹⁹⁵ Elizabeth Norton, 26 April 2010, am, pp37-40;

18 At the time of the fire the Care Commission did not have a policy on what was the appropriate procedure to be followed by staff in the event of a fire alarm sounding. Care Commission inspectors would not have a prescriptive view on what the content of such a procedure should be. They would wish to know that staff knew what the procedure was and be able to follow it²¹⁹⁶.

19 Nor did the Care Commission have a policy that bedroom doors should be kept closed at night²¹⁹⁷. It should not, therefore, be surprising that Marie Paterson did not think that the Care Commission inspectors would raise as a concern a situation in which bedroom doors were left open at night²¹⁹⁸

20 In section four of the Pre-Inspection return for Rosepark²¹⁹⁹, question 16 asked whether the premises' Risk Assessment had been reviewed in the last 12 months. At least before the fire at Rosepark the Care Commission would have been content to accept the answer given in the pre-inspection return without examining the contents of the risk assessment²²⁰⁰. Care Commission inspectors would not be experts in looking at the quality of risk assessments²²⁰¹

21 In section four of the Pre-Inspection return, the reference in question 24 to "electrical appliances" was not intended by Ms Norton to extend to an examination of records for maintenance of the general electrical installation in the premises²²⁰².

22 Mrs Norton was unaware of the IEE Wiring Regulations, 16th Edition. She would not have expected the Care Commission inspectors to be familiar with them, nor would she have expected the inspectors to go looking for them²²⁰³.

23 A letter such as is contained in Production 583 (letter regarding a three year contract and bearing the date 20 January 2000) would be something that would satisfy

²¹⁹⁶ Elizabeth Norton, 26 April 2010, am, p52;

²¹⁹⁷ Mala Thomson, 22 April 2010, pm, pp33-34;

²¹⁹⁸ Marie Paterson, 13 May 2010, pm, p92;

²¹⁹⁹ Production 818, p58;

²²⁰⁰ Elizabeth Norton, 26 April 2010, am, pp52-54; Ronald Hill, 25 June 2010, pm, pp54-55;

²²⁰¹ Ronald Hill, 25 June 2010, pm, pp34-35;

²²⁰² Elizabeth Norton, 26 April 2010, am, pp55-57;

²²⁰³ Production 1951; Elizabeth Norton, 26 April 2010, am, pp57-61;

the inspectors as to the existence of a contract for the maintenance of appliances²²⁰⁴. Ms Norton also thought that the inspectors would be satisfied were they to find a record in the form of production 570 in so far as it cross references with Production 583²²⁰⁵

24 In section four of the pre-inspection return the question (26) is asked “What was the date of the last Fire Brigade inspection of the premises?”²²⁰⁶ Ms Norton explained that that was meant to be a reference to an updated goodwill letter indicating that the Fire Brigade continued to be satisfied that the position at first registration was being maintained²²⁰⁷. It was not intended to be a familiarisation visit under section 1(1)(d) of the Fire Services Act 1947²²⁰⁸. It is not apparent from Ms Norton’s evidence that all Care Commission inspectors would understand the distinction²²⁰⁹.

25 When the pre-inspection return was being drawn up Ms Norton understood that the Fire Brigade would attend at a care home on a goodwill basis on request and provide a report to the owner. When she worked with South Lanarkshire Council it had been the practice to encourage owners to contact the fire safety officer for a visit if they had not done so for within (say) the last two years²²¹⁰.

26 When asked what she understood to be the role of the Care Commission generally in respect of the arrangements to be made and the precautions to be taken by care homes in respect of fire, Ms Norton replied – “*We were the inspecting body primarily concerned with care matters and looking at the national care standards*”²²¹¹.

27 Jacqueline Roberts, Chief Executive of the Care Commission from its inception did not consider that, in their approach to inspecting against the National Care Standards, Care Commission Inspectors should be engaging in qualitative assessments of policies and procedures relating to fire safety in care homes²²¹². What was of

²²⁰⁴ Elizabeth Norton, 26 April 2010, am, pp61-63;

²²⁰⁵ Elizabeth Norton, 26 April 2010, am, pp63-64;

²²⁰⁶ Production 818, p59;

²²⁰⁷ Elizabeth Norton, 26 April 2010, am, pp64-65;

²²⁰⁸ Elizabeth Norton, 26 April 2010, am, p73;

²²⁰⁹ Elizabeth Norton, 26 April 2010, am, p74;

²²¹⁰ Elizabeth Norton, 26 April 2010, am, pp68-69;

²²¹¹ Elizabeth Norton, 26 April 2010, am, p69;

²²¹² Cf. National Care Standard 5;

importance was that those policies and procedures should be in place and that they were accessible and known to staff²²¹³. At the outset the Care Commission did not put a focus on fire safety policies and procedures, which – with hindsight – it probably could have done²²¹⁴

28 Annabell Fowles, the former Head of Legal Services at the Care Commission, stated that if she had been advising the inspectors on the scope of their responsibilities for the examination of fire precautions in respect of Care Standards 4 and 5 in an existing care home, Mrs Fowles would have advised that the Care Commission's functions in terms of fire safety were those set out in regulation 19 of the 2002 Regulations²²¹⁵.

5. Approach to Training

1 The policy priorities underpinning the 2001 Act, 2002 Regulations and National Care Standards can be seen to advise the extent to which employees of the Care Commission were trained in matters of fire safety prior to the fire²²¹⁶.

2 Prior to the fire the Care Commission employed no fire safety specialist²²¹⁷.

3 Prior to the fire at Rosepark Care Commission inspectors received no specific training in fire safety²²¹⁸.

4 Mala Thomson, who was the leader of the Inspection Team that included Marie Paterson and Morag McHaffie, did not receive any fire safety training or advice when she took up employment with the Care Commission. She received no guidance from the Care Commission, or any other source, as to what fire safety standards were considered acceptable to the Care Commission²²¹⁹. She could recall no specific training on the terms of the 2001 Act and 2002 Regulations²²²⁰. Mrs Thomson did not, however, undertake inspection work. She would not dispute the contents of

²²¹³ Jacqueline Roberts, 1 June 2010, am, pp120-122;

²²¹⁴ Jacqueline Roberts, 1 June 2010, am, pp123-124;

²²¹⁵ Annabell Fowles, 10 June 2010, pm, pp43-46;

²²¹⁶ Ronald Hill, 25 June 2010, am, pp38-40;

²²¹⁷ Jacqueline Roberts, 1 June 2010, am, p73;

²²¹⁸ Ronald Hill, 25 June 2010, am, p55;

²²¹⁹ Mala Thomson, 22 April 2010, am, p114;

²²²⁰ Mala Thomson, 22 April 2010, am, p116;

inspection reports because they reflected decisions taken by inspectors on the ground²²²¹. Her supervision of the team was more concerned with seeing how it was managing its workload in terms of meeting Care Commission targets²²²²

5 In summary, Mrs Thomson did not expect the inspection teams to have any expertise in fire safety²²²³. The inspectors were trained social workers and nurses, not fire safety experts²²²⁴.

6 In that state of affairs it is not surprising that Marie Paterson, whose casework covered Rosepark²²²⁵, did not consider that she was qualified, in terms of the training she received, to assess the appropriateness of policies and procedures relating to fire safety²²²⁶.

7 Nor is it surprising that Morag McHaffie, Mrs Paterson's colleague on the first annual inspection of Rosepark in 2003, did not consider herself to be equipped, in terms of the training she received, to carry out an assessment as to whether a particular emergency or evacuation procedure was appropriate or otherwise²²²⁷. Prior to the fire at Rosepark she did not have an understanding of what was an appropriate procedure to be followed in the event of a fire alarm sounding²²²⁸

6. The Inspections by the Care Commission at Rosepark

1. Rosepark Care Home received its first inspection by inspectors employed by the Care Commission on 20th March 2003²²²⁹.
2. The inspection team comprised Marie Paterson and Morag McHaffie.
3. The date of the inspection was determined by the fact that it had been ascribed green flag status following the transfer of responsibilities of Lanarkshire Health Board for the regulation of nursing homes to the Care Commission after 1st April 2002²²³⁰.

²²²¹ Mala Thomson, 22 April 2010, am, pp117-118;

²²²² Mala Thomson, 22 April 2010, pm, p32;

²²²³ Mala Thomson, 22 April 2010, pp134-135;

²²²⁴ Ronald Hill, 25 June 2010, am, pp37-39;

²²²⁵ Marie Paterson, 13 May 2010, am, p8;

²²²⁶ Marie Paterson, 13 May 2010, pm, pp36-37;

²²²⁷ Morag McHaffie, 8 March 2010, am, p19;

²²²⁸ Morag McHaffie, 8 March 2010, am, pp84-85;

²²²⁹ Production 818, p126;

4. Green flag status, under the arrangements described in evidence by Marie Paterson meant that Rosepark was seen as low risk and, therefore, did not merit priority for a visit by the Care Commission inspectors²²³¹

The Document Checklist

1. In relation to the procedure for inspection there was a checklist of documents required of care homes, of which page 4 of production 818 was an example from the Rosepark file. It would be handed over to the person in charge of the home at the time of the inspection in order that the required documentation could be produced²²³².

2. Amongst the documents on the checklist required for the first inspection of Rosepark by the Care Commission were both risk assessment documentation and a Firemaster's report. The risk assessment documentation included the risk assessment under the Fire Precautions (Workplace) Regulations 1997²²³³.

3. Risk assessments in the context of the Fire Precautions (Workplace) Regulations 1997 were amongst the records that the inspectors of the Care Commission would be looking for²²³⁴.

4. The inspectors would be looking to see if there was a risk assessment in place. However, they would not form a judgment as to whether the risk assessment was an effective one or not. The inspectors would look to see if the risk assessment generated a completed action plan to avoid or minimise risk²²³⁵. They were not, however, qualified to determine whether it was an appropriate action plan or not²²³⁶, and did not do so. The inspectors were not instructed to assess the risk assessment²²³⁷.

5. The Firemaster's report was understood to be a letter which indicated that the Fire Service had visited the premises. Miss McHaffie did not know what it signified

²²³⁰ Marie Paterson, 13 May 2010, am, pp10-11;

²²³¹ Marie Paterson, 13 May 2010, am, pp10-11;

²²³² Marie Paterson, 13 May 2010, am, p61; Morag McHaffie, 8 March 2010, am, pp30-32

²²³³ Morag McHaffie, 8 March 2010, am, p34;

²²³⁴ Morag McHaffie, 8 March 2010, am, p24;

²²³⁵ Marie Paterson, 13 May 2010, am, pp66-67;

²²³⁶ Morag McHaffie, 8 March 2010, am, p25; Marie Paterson, 13 May 2010, am, pp70-71;

²²³⁷ Marie Paterson, 13 May 2010, am, p73;

and, prior to her inspection of Rosepark in 2003, no one had explained to her what a Firemaster's report was²²³⁸.

6. Mrs Paterson's understanding was that the Firemaster's report related to the original goodwill letter at the time of first registration. She did not understand the Fire Service to have any ongoing role in care homes in relation to fire precautions or fire safety²²³⁹. Her understanding appeared to be at odds with that of Ms Norton. Ms Norton thought that there was a process whereby the goodwill letter was updated to reflect the Fire Service's continued satisfaction with the premises²²⁴⁰. As the Care Commission's submissions properly acknowledge, it is clear that, as far as Care Homes in the area of operation of Strathclyde Fire and Rescue Service, were concerned, no formal certification existed after the issuing of the initial goodwill letter²²⁴¹

7. In the checklist the reference to a "fire log" was a reference to the recording of fire alarm tests and fire drills²²⁴². Miss McHaffie recollected that the Fire Register, production 27, as being the fire log at the time of her inspection of Rosepark²²⁴³.

8. As regards maintenance arrangements the checklist required of Rosepark the provision of maintenance contracts for equipment²²⁴⁴. Miss McHaffie expected to see more than an offer to continue providing services such as was contained in the letter bearing to be dated 1 February 2000 under the heading "Alex Ross Electrical". She would expect to have seen a maintenance record that showed that work had been done²²⁴⁵.

9. Conversely, that part of the document bearing the heading "Forms of Completion and Inspection Certificate" comprising production 570 relating to 1st

²²³⁸ Morag McHaffie, 8 March 2010, am, pp37-38;

²²³⁹ Marie Paterson, 13 May 2010, am, p63;

²²⁴⁰ Elizabeth Norton, 26 April 2010, am, pp64-65;

²²⁴¹ Care Commission submissions, para. 25;

²²⁴² Morag McHaffie, 8 March 2010, am, p39; Marie Paterson, 13 May 2010, am, p73;

²²⁴³ Morag McHaffie, 8 March 2010, am, p40; Marie Paterson, 13 May 2010, am, p75;

²²⁴⁴ Morag McHaffie, 8 March 2010, am, p40;

²²⁴⁵ Production 583; Morag McHaffie, 8 March 2010, am, pp41-44;

February 2003 *would* have satisfied Miss McHaffie that there had been an inspection and test of the electrical installation on 1st February 2003²²⁴⁶.

10. As regards training in fire safety, the inspectors would look at induction training records and also ask staff if they received training. In relation to fire drills, Miss McHaffie had no recollection of discussing fire drills with any of the staff at Rosepark. She could not say if the matter had come up²²⁴⁷.

The Pre-inspection Return

11. The first pre-inspection return by Rosepark to the Care Commission was completed and returned in December 2002²²⁴⁸. It was completed on behalf of Rosepark²²⁴⁹. There are set out in the succeeding paragraphs those points which may be thought to be of relevance. Page numbers refer to production 818.

12. On page 46 there is an apparently incomplete list of staff²²⁵⁰.

13. Pages 49-50 contain information about staff training. On page 50 there is a record of fire prevention training in 2002 affecting 19 members of staff. That number was less than the entire staff of the home²²⁵¹, and should have been of concern and triggered an examination of staff training records²²⁵².

14. Section Four of the return, at pages 57-58, is concerned with “Record Keeping and Administration”. Question 15 invites a response to the question “Is there a record of fire safety drills, checks and training compliant with Fire Brigade guidance?”

15. Miss McHaffie was asked to confirm her understanding of the expression “Fire Brigade guidance” in question 15. She stated that some care homes used a document produced by the Fire Brigade which clearly indicated the expected frequency of fire

²²⁴⁶ Morag McHaffie, 8 March 2010, am, pp44-46;

²²⁴⁷ Morag McHaffie, 8 March 2010, am, pp48-49;

²²⁴⁸ Morag McHaffie, 8 March 2010, am, pp50-51; Marie Paterson, 13 May 2010, am, pp76-77;

²²⁴⁹ Morag McHaffie, 8 March 2010, am, p55;

²²⁵⁰ Morag McHaffie, 8 March 2010, am, pp59-60; Marie Paterson, 13 May 2010, am, p83;

²²⁵¹ Morag McHaffie, 8 March 2010, am, pp62-63;

²²⁵² Marie Paterson, 13 May 2010, am, pp84-86;

drills, fire alarm tests, and checks of emergency lighting²²⁵³. Miss McHaffie understood the guidance to refer to something akin to production 221, the Strathclyde Fire Brigade Fire Precautions Log Book²²⁵⁴, which was present, but not in use, at Rosepark.

16. Mrs Paterson did not know what was meant by “Fire Brigade guidance” at the time of the inspection of Rosepark. That being so she was not in a position, as an inspector, to carry out the comparison exercise required by question 15²²⁵⁵. Mrs Paterson was disposed to accept that the guidance equated to the Fire Precautions Log Book, production 221²²⁵⁶.

17. Miss McHaffie understood that fire drills should take place twice per year²²⁵⁷. That understanding accorded with Mrs Paterson’s local authority experience. The frequency of fire drills was something that the inspectors would endeavour to establish by reference to the records of the home²²⁵⁸.

18. On page 58, the return asked whether the premises risk assessment had been reviewed in the last 12 months. The answer given was in the affirmative. That was something that Miss McHaffie would have followed up²²⁵⁹.

19. The inspectors would be concerned to establish that a risk assessment existed and was in place. They would have a quick look through it, but they would not analyse its contents²²⁶⁰. In the Risk Assessment of 6th January 2003 conducted by James Reid, page 8, section F1, there was a statement that employees had not been practised in fire drills which should be carried out at six monthly intervals. If read by them, this would have been followed up by the inspectors²²⁶¹

²²⁵³ Morag McHaffie, 8 March 2010, am, pp68-69;

²²⁵⁴ Morag McHaffie, 8 March 2010, am, pp69-70;

²²⁵⁵ Marie Paterson, 13 May 2010, am, p88;

²²⁵⁶ Marie Paterson, 13 May 2010, am, pp89-91;

²²⁵⁷ Morag McHaffie, 8 March 2010, am, pp70-73; cf, production 221, page 17;

²²⁵⁸ Marie Paterson, 13 May 2010, am, pp15, 109;

²²⁵⁹ Morag McHaffie, 8 March 2010, am, p74;

²²⁶⁰ Marie Paterson, 13 May 2010, am, pp110-113;

²²⁶¹ Production 216,p8; Marie Paterson, 13 May 2010, am, p114;

20. On page 58, the return confirmed that there were current maintenance contracts for electrical appliances. Miss McHaffie would have followed that up by looking for some evidence of ongoing maintenance²²⁶².

21. On page 59, question 25 was concerned with the date of the last Fire Brigade inspection. The answer given was “July 02” and the annotation “No reports given any more”. Mrs McHaffie stated that she would have checked for a record that the Fire Brigade had attended in July 2002. There is no record in any production of a Fire Brigade visit on that date²²⁶³. Miss McHaffie conceded the possibility that this information may have been taken at face value at the inspection. She accepted that she could not have seen a goodwill letter after 1992²²⁶⁴.

22. On page 59, the answers confirmed the existence of written health and safety policies and procedures, a premises risk assessment, and an emergency evacuation plan. Under reference to this part of the return Miss McHaffie confirmed that she did not have any understanding of what was an appropriate procedure to follow in the event of a fire alarm sounding²²⁶⁵.

23. The return was signed by Sarah Meaney on 10th December 2002²²⁶⁶

24. Prior to the fire the approach of Miss McHaffie to the examination of a fire notice (with an emergency procedure on it) was to confirm the existence of such a procedure, rather than make an assessment of its quality²²⁶⁷.

The Self Evaluation Document

25. The self-evaluation was directly referable to the care standards which would be the subject of the forthcoming inspection²²⁶⁸. References hereafter are to page numbers in production 818.

²²⁶² Morag McHaffie, 8 March 2010, am, pp75-78; cf Production 570;

²²⁶³ Cf. Production 182, page 3;

²²⁶⁴ Morag McHaffie, 8 March 2010, am, pp78-82;

²²⁶⁵ Morag McHaffie, 8 March 2010, am, pp83-84;

²²⁶⁶ Morag McHaffie, 8 March 2010, am, pp85-86;

²²⁶⁷ Morag McHaffie, 8 March 2010, am, p19;

²²⁶⁸ Production 818, p70; Morag McHaffie, 8 March 2010, am, p86;

26. On page 71, the evaluation by Sarah Meaney, under care standard 4, stated that “we have fire alarm checks every week and planned fire drills” without any stipulation as to the frequency of those drills²²⁶⁹.

27. On page 72, the evaluation by Sarah Meaney, under care standard 5, stated that “Staff training is ongoing at Rosepark, we consider training a priority and our staff undergo continual and updated training, both in-house and externally.” There was no critique in the self evaluation about any lack of training in any particular respect²²⁷⁰.

28. The key standards being examined at the forthcoming inspection were to be those numbered 4, 5, 6, 13, and 15²²⁷¹.

29. The pre-inspection return and self-evaluation were returned on 12th December 2002²²⁷².

The First Inspection of Rosepark by the Care Commission

30. The first inspection, an announced inspection, took place on 20th March 2003²²⁷³.

31. Marie Paterson was the lead inspector. She was responsible for drafting up the report after the inspection²²⁷⁴

32. The inspection involved a request for the documents in the checklist to be handed over. The normal procedure was for the inspectors to walk around the premises and note what they observed. They would speak to both staff and residents, observe activities, compare notes and give feedback to the owner or person in charge²²⁷⁵. Miss McHaffie thought that the inspection may have lasted up to a day²²⁷⁶

²²⁶⁹ Morag McHaffie, 8 March 2010, am, p87;

²²⁷⁰ Morag McHaffie, 8 March 2010, am, pp88-89; Marie Paterson, 13 May 2010, am, pp119-120;

²²⁷¹ Morag McHaffie, 8 March 2010, am, p90;

²²⁷² Morag McHaffie, 8 March 2010, am, p91;

²²⁷³ Morag McHaffie, 8 March 2010, am, pp92-93;

²²⁷⁴ Marie Paterson, 13 May 2010, am, p63;

²²⁷⁵ Morag McHaffie, 8 March 2010, am, pp92-93;

²²⁷⁶ Morag McHaffie, 8 March 2010, am, p94;

33. Miss McHaffie appeared to accept that she looked at the paperwork provided in relation to matters of fire safety²²⁷⁷

34. Both Miss McHaffie²²⁷⁸ and Mrs Paterson²²⁷⁹ took notes during the inspection on a form that is designed to relate to the care standards being examined.

35. Mrs Paterson's notes revealed the following (the page numbers relating to production 818)²²⁸⁰:

- Apart from the owners and Sarah Meaney²²⁸¹, the inspectors are recorded as having spoken to 1 nurse and 2 care assistants. They are recorded as having spoken to 4 residents²²⁸²;
- In the Evaluation for standard 4 there was no entry for 4.9 – You receive information about what to do in the event of a fire or other emergency. Mrs Paterson stated that she was not looking at that area of inspection²²⁸³;
- In the Evaluation for standard 5 Mrs Paterson recorded “Good training, Policy and Procedures File, Good Induction, Appropriate policy and Procedures”. These included policies and procedures relating to fire safety, and staff training in relation to them²²⁸⁴;
- Miss McHaffie inspected this standard²²⁸⁵;
- Although the word “appropriate” was used it is probable that the inspectors would have just accepted the fact that there was a policy there²²⁸⁶. Miss McHaffie stated that the fire notice comprising production 656 would have satisfied her as to the existence of a procedure in the event of a fire alarm sounding²²⁸⁷. For reasons which she was unable to explain, Miss McHaffie said

²²⁷⁷ Morag McHaffie, 8 March 2010, am, p113;

²²⁷⁸ Production 818, pp103-124;

²²⁷⁹ Production 818, pp85-101;

²²⁸⁰ Marie Paterson, 13 May 2010, am, pp124-145;

²²⁸¹ Marie Paterson, 13 May 2010, pm, p66;

²²⁸² Marie Paterson, 13 May 2010, am, pp124-125;

²²⁸³ Marie Paterson, 13 May 2010, am, p127;

²²⁸⁴ Marie Paterson, 13 May 2010, am, p138;

²²⁸⁵ Marie Paterson, 13 May 2010, am, p143;

²²⁸⁶ Marie Paterson, 13 May 2010, am, pp139-141;

²²⁸⁷ Morag McHaffie, 8 March 2010, am, pp106-107

that she would not have taken action if she came upon a fire notice like production 654, which had not been filled in²²⁸⁸;

36. Miss McHaffie's notes revealed the following (the page numbers relating to production 818)²²⁸⁹:

- In the Evaluation for standard 4 there was no entry for 4.9 – You receive information about what to do in the event of a fire or other emergency. Miss McHaffie could not recall why that was;
- In the section of the notes concerned with standard 5²²⁹⁰, Miss McHaffie noted that there was a staff training matrix which equated to the matrix in Isobel Queen's employment records²²⁹¹ and that this included a fire lecture and orientation²²⁹². There were no notes in that section explicitly referring to policies and procedures relating to fire safety. They were probably not looked at²²⁹³. On page 114, the reference to "A Ross Electrical – 3 Yr" would have been derived from the records of Rosepark, and appeared to be confirmed by production 215, page 3, being a letter dated 1st February 2003, which would have satisfied the inspectors²²⁹⁴. If the inspectors had discovered that such cover as was described in that letter was not in fact available they would have taken steps to require 24 hour cover²²⁹⁵
- Miss McHaffie would not have enquired about the extent to which the fire drill referred to on page 114, which was noted to have taken place on 3 February 2003, covered the whole workforce²²⁹⁶. What the inspectors were checking was that there was education and training in fire, and fire drills going on. They did not apply their minds to the details were or what was involved²²⁹⁷.

²²⁸⁸ Morag McHaffie, 8 March 2010, am, p107;

²²⁸⁹ Morag McHaffie, 8 March 2010, am, pp112-121; pm, pp1-

²²⁹⁰ Production 818, p111;

²²⁹¹ Production 243, p32;

²²⁹² Morag McHaffie, 8 March 2010, pm, p4;

²²⁹³ Morag McHaffie, 8 March 2010, pm, p6;

²²⁹⁴ Morag McHaffie, 8 March 2010, pm, pp8-10; cf. Production 215, page 3;

²²⁹⁵ Marie Paterson, 13 May 2010, pm, pp7-14;

²²⁹⁶ Morag McHaffie, 8 March 2010, pm, pp13-14; cf production 27, page 13, 32;

²²⁹⁷ Morag McHaffie, 8 March 2010, pm, p40; Marie Paterson, 13 May 2010, am, pp147-148;

37. At the inspection Miss McHaffie did not recall any checks being made to the door closers²²⁹⁸. It is unlikely that any concern would have been raised about door closers that had either been removed or disconnected and, in any event nobody had instructed the inspectors that there was an issue of concern in the disconnection or removal of door closers²²⁹⁹.

38. If Miss McHaffie had discovered at the inspection that bedroom doors were routinely kept open at night that would not have caused her concern²³⁰⁰. Conversely, it would have been a matter of concern to Mrs Paterson. If there was such a practice, and it had been discovered, then Mrs Paterson would have raised the matter with her manager. She would also have referred to the issue in the report²³⁰¹. Having regard to the terms of the report one may infer that such a practice was not discovered. In any event, standing the position outlined in paragraph 32 of the submissions for the Care Commission, it is questionable whether the raising of any concern by Mrs Paterson would have resulted in any follow up by the Care Commission.

39. If Miss McHaffie had discovered that members of the night staff at Rosepark were overlooked where fire drills were concerned she would have recorded that in her notes. That she did not do so indicated that it was a situation which was not discovered²³⁰².

40. In any event, according to Mrs Paterson, it would not have been of particular interest for the inspectors to know what proportion of staff participated in fire drills. Mrs Paterson's understanding of the position, probably derived from her local authority experience, was that there should be two drills per year. That might mean that some staff didn't take part. Only after the fire was it appreciated that this was a matter requiring to be addressed²³⁰³.

²²⁹⁸ Morag McHaffie, 8 March 2010, am, p96;

²²⁹⁹ Marie Paterson, 13 May 2010, am, pp98-99;

²³⁰⁰ Morag McHaffie, 8 March 2010, pm, p13;

²³⁰¹ Marie Paterson, 13 May 2010, am, p97;

²³⁰² Morag McHaffie, 8 March 2010, pm, p17;

²³⁰³ Marie Paterson, 13 May 2010, pm, pp74-75;

41. Although Miss McHaffie thought that the Care Commission required six monthly fire drills, the fact that they had not been occurring with that level of frequency was not discovered at the inspection²³⁰⁴.

42. If Miss McHaffie had discovered that the procedure on the sounding of a fire alarm at Rosepark did not involve an immediate call to the Fire Brigade she would have been concerned. But the inspection did not get down to that level of detail²³⁰⁵.

43. Mrs Paterson considered it undesirable that there should be any discrepancy between the terms of the home's fire notices (and in particular production 656) and the procedure adopted in practice by staff on the occurrence of a fire alarm²³⁰⁶. Were any such discrepancy to have emerged at the inspection it would have been recorded in the inspection report²³⁰⁷. One may infer from the terms of the report that it was not discovered

44. If any concerns had been raised during the inspection about the manner in which fire safety training was undertaken at Rosepark then that would have been recorded in the contemporary notes or the subsequent inspection report²³⁰⁸.

45. Miss McHaffie would not, in 2003, have regarded a closed electrical distribution box as a fire hazard. She was unaware of any view within the Care Commission about the safe storage of aerosols²³⁰⁹

The Inspection Report

46. The report of the inspection was sent to Mr and Mrs Balmer by Mala Thomson under cover of a letter dated 20th June 2003²³¹⁰.

47. The report was for the benefit of not only the owners but also the general public, who may read and rely upon it²³¹¹.

²³⁰⁴ Morag McHaffie, 8 March 2010, pm, pp20-22;

²³⁰⁵ Morag McHaffie, 8 March 2010, pm, pp39-40; Marie Paterson, 13 May 2010, am, pp15-16;

²³⁰⁶ Marie Paterson, 13 May 2010, pm, p23;

²³⁰⁷ Marie Paterson, 13 May 2010, pm, p23;

²³⁰⁸ Marie Paterson, 13 May 2010, pm, p66;

²³⁰⁹ Morag McHaffie, 8 March 2010, pm, pp24-27;

²³¹⁰ Morag McHaffie, 8 March 2010, pm, pp27-28; Production 818, p125;

48. A draft of the report was sent to Mr and Mrs Balmer for comment in advance of publication of the final report²³¹²

49. The letter advised that a certificate of registration (to supersede the old Health Board Certificate) would be issued in due course²³¹³.

50. No issues of concern relating to fire safety and training were raised in the report²³¹⁴.

51. Under reference to care standard 4, the inspectors reported:

“Service users and staff are aware of what to do in the event of a fire and all relevant fire safety information and tests were recorded”²³¹⁵

52. The report made no reference to any discrepancy between the procedure contained in the home’s fire notices and the procedure adopted in practice on the sounding of a fire alarm. Standing that there was such a discrepancy, the statement from the inspection report just quoted was inaccurate²³¹⁶. On the evidence it is reasonable to infer that no such assessment was made.

53. The only recommendation arising out of the examination of care standard 4 was concerned with the fitting of locks to bedroom doors²³¹⁷.

54. Under reference to care standard 5, the inspectors reported:

“The Service has appropriate policies and procedures regarding... fire safety...”²³¹⁸

There would be included in that description the procedure for what to do in the event of a fire alarm sounding²³¹⁹. The statement in the report would require to have been supported by an assessment by the inspectors of the procedure itself²³²⁰

55. If Mrs Paterson had received specific training in fire safety policies and procedures she would have felt better qualified to make the statement just quoted²³²¹.

²³¹¹ Marie Paterson, 13 May 2010, pm, p16; Jacqueline Roberts, 1 June 2010, am, p93;

²³¹² Marie Paterson, 13 May 2010, pm, pp16-18; Production 818, pp136-138;

²³¹³ Morag McHaffie, 8 March 2010, pm, p29

²³¹⁴ Morag McHaffie, 8 March 2010, pm, p62;

²³¹⁵ Production 818, p128;

²³¹⁶ Marie Paterson, 13 May 2010, pm, p24;

²³¹⁷ Marie Paterson, 13 May 2010, pm, pp18-19;

²³¹⁸ Production 818, p130;

²³¹⁹ Marie Paterson, 13 May 2010, pm, p27;

²³²⁰ Marie Paterson, 13 May 2010, pm, pp28-29;

56. None of the recommendations in the report arising from the inspection under care standard 5 concerned fire safety²³²². The remaining standards 6, 13 and 15 are not pertinent to fire safety²³²³.

The Follow -Up Inspection

57. The follow-up inspection was unannounced. It focused on the recommendations in the annual inspection report, and therefore on matters that had already given rise to concern²³²⁴.

58. The date of the follow-up inspection was 17th November 2003²³²⁵. It was conducted by Marie Paterson²³²⁶

59. Rosepark was regarded as a low risk service. This had a bearing on the level of scrutiny that was brought to bear on the service in the follow-up inspection²³²⁷.

60. The basis of the follow-up report²³²⁸ was to concentrate on the requirements of the previous inspection²³²⁹.

61. There was no inspection of any documentation bearing upon the question of fire safety²³³⁰.

62. Having been sent out in draft to the owners for comment the final interim inspection was signed by Mrs Paterson on 19th December 2003²³³¹.

Preparations for the 2004 Annual Inspection

63. On 8 January 2004 Marie Paterson intimated to Sarah Meaney that the annual announced inspection of Rosepark was planned for 24th and 25th February 2004. Mrs

²³²¹ Marie Paterson, 13 May 2010, pm, pp37-38;

²³²² Marie Paterson, 13 May 2010, pm, pp38-39;

²³²³ Marie Paterson, 13 May 2010, pm, p43;

²³²⁴ Marie Paterson, 13 May 2010, pm, pp43-45;

²³²⁵ Marie Paterson, 13 May 2010, pm, p45;

²³²⁶ Marie Paterson, 13 May 2010, pm, pp45-46;

²³²⁷ Marie Paterson, 13 May 2010, pm, p47;

²³²⁸ Production 818, pp194-196;

²³²⁹ Marie Paterson, 13 May 2010, pm, p50;

²³³⁰ Marie Paterson, 13 May 2010, pm, p52;

²³³¹ Marie Paterson, 13 May 2010, pm, pp52-53;

Paterson enclosed the pre-inspection return and self-evaluation document for completion by the home²³³².

64. Care standards 3, 9, 11, 12 and 13 were to be the subject of inspection²³³³. According to Mrs Paterson's understanding, care standards 2, 3 and 4 each called for consideration of matters of fire safety²³³⁴.

65. A pre-inspection return was completed by Sarah Meaney and submitted to the Care Commission²³³⁵.

66. In section four²³³⁶ – Record Keeping and Administration – the return informed (i) that there was a record of fire safety drills, checks and training compliant with Fire Brigade guidance; (ii) that the premises' risk assessment had been reviewed in the last 12 months; (iii) that fire safety equipment had been last checked on 19th January 2004; (iv) that the last check of the electrical appliances was April 2003; (v) that no date had been inserted for the date of the last Fire Brigade inspection; and (vi) that there was a plan for emergency evacuation and a contingency plan²³³⁷.

67. The pre-inspection return was signed by Miss Meaney on 12 January 2004²³³⁸.

68. In the self-evaluation document²³³⁹, under reference to Key Standard 3, this was said on behalf of Rosepark:

“You can be confident that you will be living in a safe environment. We adhere closely to all relevant legislation on health and safety, fire safety and environmental health. We have independent health and safety advisers who inspect Rosepark and compile a policy manual in all aspects of safety and risk assessments. We are registered with Strathclyde Fire Brigade and have a state of the art fire alarm installed for your safety. The alarm is tested weekly.”

Mrs Paterson would have known that Rosepark was not registered with Strathclyde Fire Brigade because no care home was registered with the Fire Authority²³⁴⁰.

²³³² Marie Paterson, 13 May 2010, pm, pp52-56;

²³³³ Marie Paterson, 13 May 2010, pm, p57;

²³³⁴ Marie Paterson, 13 May 2010, pm, pp58-59;

²³³⁵ Sadie Meaney

²³³⁶ Production 818, pp238-239;

²³³⁷ Marie Paterson, 13 May 2010, pm, pp61-62;

²³³⁸ Marie Paterson, 13 May 2010, pm, p62; Production 818, p251;

²³³⁹ Production 818, p252;

²³⁴⁰ Marie Paterson, 13 May 2010, pm, p64;

69. On the same page of the return relating to key standard 3, there has been entered under “Areas for Development/Improvement” the words “Continued fire safety training for all staff”²³⁴¹.

70. Mrs Paterson stated that this would be a matter that would be followed up at the annual inspection. In the result the fire intervened and the inspection did not take place²³⁴².

7. Concluding Observations

The evidence led at the Inquiry demonstrates that the Care Commission did not set out to examine fire safety issues in any depth. Rather, its approach, derived from the 2002 Regulations and National Care Standards, was one which concentrated, if anything, on a process of verification. It is plain, through no fault of their own, that the inspectors who visited Rosepark were not qualified to examine matters of fire safety in a way which was likely to uncover defective practices and procedures. The concern which must necessarily arise from that state of affairs is that the inspection reports generated by such an approach to inspection could potentially be misleading in terms of the level of reassurance they afforded users and the public in matters of fire safety. By way of illustration it cannot be said of Rosepark, as the inspectors found in 2003, that (i) service users and staff were aware of what to do in the event of a fire and that all relevant fire safety information and tests were recorded, or (ii) there were in place appropriate policies and procedures regarding fire safety²³⁴³.

²³⁴¹ Production 818, p252;

²³⁴² Marie Paterson, 13 May 2010, pm, pp65-66;

²³⁴³ Production 818, p128, 130;

Note to Chapter 27

As I have said at the beginning of this Chapter, in my findings in Chapter 2 I have set out a number of facts which I consider relevant to the circumstances of the deaths at Rosepark. These relating to the Care Commission are at OF2.

The submissions for the Care Commission, a number of which have been incorporated into this Chapter, are very realistic and objective. While it may have been policy intention that the existing arrangements for the inspection of nursing homes by Health Boards would continue under the auspices of the Care Commission, an examination of the statutory provisions indicates that this was not the case. Regulation 13(1) of the Nursing Homes Registration (Scotland) Regulations 1990 provides:

“In respect of a nursing home which is registered under the Act, the facilities provided, precautions taken and arrangements made, all as described in this Regulation, shall be of a standard which the Health Board reasonably considers to be sufficient and suitable in the circumstances of the particular nursing home, which standards shall be maintained for so long as the registration remains in force.”

There was accordingly an obligation on the Health Board to consider whether the fire safety arrangements in a nursing homes were “sufficient and suitable in the circumstances of the particular nursing home”.

On the other hand the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002 Regulation 19 directed the provider to keep a record of:

“the procedure to be followed on the event of a fire or other emergency; all fire drills and alarm tests which had been conducted, and any maintenance of equipment which is used in the provision of the service.”

This was a substantially different obligation which concentrated on a process of verification. There was no statutory requirement on the Care Commission to consider the sufficiency and suitability of these measures. Care home inspectors, like inspectors for the Lanarkshire Health Board, did not have the kind of knowledge to be able to make an assessment of the quality of an evacuation plan or have the knowledge of what was best practice in relation to fire safety. Both the Lanarkshire Health Board and Care Commission were of the mistaken view that care homes, after the original obtaining of a letter of goodwill on first registration, were subject to regular fire safety inspections by the Fire Service.

The obvious persons to carry out adequate fire safety inspections were properly trained fire safety officers employed by the Fire Brigade. The memoranda of understanding between the Care Commission and the various Health Boards which came into being after the Rosepark fire provided, with the agreement of the various Fire Services, that fire safety inspections would be carried out by the Fire Service. This received statutory force with the coming into being of the Fire (Scotland) Act 2005.

CHAPTER 28: THE EVENTS OF 30-31 JANUARY 2004

The purpose of this chapter is to provide a detailed factual narrative of the events of the night of 30-31 January 2004, as disclosed in the evidence of members of staff at Rosepark, officers of Strathclyde Fire and Rescue Service, and members of the Scottish Ambulance Service. It picks up at the back shift on 30 January 2004 and considers the events of the night shift before the outbreak of the fire, the response to the fire itself, and the fire and rescue operations which unfolded upon, and after, the arrival of the first fire appliances.

Events Preceding the Night Shift

1. The nurse in charge of the backshift on 30 January 2010 was Phyllis West²³⁴⁴. With her were Elizabeth Mortimer, Theresa McKenna, Sheila Lees, Liz Hamilton, Tracy Farrer and, possibly, Jacqueline Cowan and Jacqueline Higgins²³⁴⁵. Ms West had cause to visit cupboard A2 during her shift in the context of having to assist Helen Milne in room 13. This was probably between 7 and 8pm²³⁴⁶.
2. During the backshift one of the care assistants on duty would attend to the laundry²³⁴⁷. Tracy Farrer was on the laundry rota for the evening of 30 January 2004²³⁴⁸.
3. Although her recollection of the shift was unclear Miss Farrer was able to confirm, with the assistance of her police statements dated 9th and 20th February 2004, that (i) she put on a load of underwear in the white top loading machine²³⁴⁹, (ii) she put on a load of tea towels left by the kitchen staff in either the red or yellow washing

²³⁴⁴ Pages 25, 27, Afternoon Session, Monday 23 November 2009;

²³⁴⁵ Pages 27-28, Afternoon Session, Monday 23 November 2009;

²³⁴⁶ Pages 38-39, Afternoon Session, Monday 23 November 2009;

²³⁴⁷ Tracey Farrer, 24 November 2010, am, pp125-126;

²³⁴⁸ Tracey Farrer, 24 November 2010, am, pp131 136;

²³⁴⁹ See production 885G;

machine (her evidence on this point being based on the that there would normally be towels to be separated out)²³⁵⁰, and (iii) she left the machines to run their cycle²³⁵¹.

4. Miss Farrer's evidence was that if she had used the yellow (Minnet) washing machine she would pressed the third button down, the figure "40" would come up on the digital display, and there would be no need to adjust the temperature because the figure "40" related to 40 degrees²³⁵². If she had used the red machine Miss Farrer would have turned the dial to "40" and pressed the start button next to the dials²³⁵³

5. Under reference to the statement of 9th February 2004 Miss Farrer confirmed that her normal practice would be to put any towels requiring to be done in the smaller of the two washing machines, that she would always put the washing on at 2030 or 2045 hours, and that the washing would be left for the domestics to unload in the morning²³⁵⁴. There was nothing unusual about 30th January 2004 so it was likely that Miss Farrer would have followed her normal practice²³⁵⁵.

6. Ms West's shift ended at 2130 hours²³⁵⁶. She handed over to Ms Queen at about 2115 hours. Mr Norton was also there; there was nothing of note to report²³⁵⁷. Ms West thought that the last time she visited corridor 4b would have been towards the end of her shift and she noticed nothing untoward²³⁵⁸.

7. The nightshift for the night of 30th/31st January 2010 comprised Isobel Queen (Nurse in Charge), Brian Norton (a Registered Mental Nurse), Yvonne Carlyle (Care Assistant) and Irene Richmond (Care Assistant).

²³⁵⁰ Tracey Farrer, 24 November 2010, am, pp133-136; production 885G;

²³⁵¹ Tracey Farrer, 24 November 2010, am, p137;

²³⁵² Tracey Farrer, 24 November 2010, am, p135;

²³⁵³ Tracey Farrer, 24 November 2010, am, pp135-136;

²³⁵⁴ Tracey Farrer, 24 November 2010, am, pp137-138

²³⁵⁵ Tracey Farrer, 24 November 2010, am, p138;

²³⁵⁶ Page 42, Afternoon Session, Monday 23 November 2009;

²³⁵⁷ Pages 46-47, Afternoon Session, Monday 23 November 2009; Page 53, Morning Session, Thursday 26 November 2009;

²³⁵⁸ Pages 48-49, Afternoon Session, Monday 23 November 2009;

8. Miss Queen did not consider that the title of nurse in charge conferred any particular responsibility²³⁵⁹. The view she expressed was that she did not bear any more responsibility than Mr Norton and they worked together as a team²³⁶⁰. Ms Queen did not consider that the nurse in charge had any particular responsibilities which were different from anyone else on duty on the night shift²³⁶¹. She had received no training on her duties as nurse in charge, and in particular on the night shift.

9. At the time of the fire Ms Queen knew where the fire extinguishers and break glass points were. However, she did not know what the Home's fire procedure was. If the fire alarm sounded she did not know what procedure she was meant to follow²³⁶². What she said she would have done was to attend at the fire panel, establish which zone was indicated and go and investigate for signs of a fire. If she had located a fire Ms Queen said that she would telephone the Fire Brigade, or delegate this task to another, and then start evacuating residents from the affected area. If she had found no signs of a fire she would have contacted Joe Clark²³⁶³.

10. In the result that was the procedure which was followed on 31st January 2004;

Activities and Movements of Night Staff Before the Fire Alarm

Brian Norton

11. Brian Norton's shift started at 2115 hours. He was on duty with Staff Nurse Isobel Queen and care assistants Yvonne Carlyle and Irene Richmond. Isobel Queen was the nurse in charge²³⁶⁴;

²³⁵⁹ Page 93, Morning Session, Wednesday 2 December 2009;

²³⁶⁰ Pages 93-94, Morning Session, Wednesday 2 December 2009;

²³⁶¹ Isobel Queen, 2 December 2009, am, p93;

²³⁶² Page 25, Morning Session, Wednesday 2 December 2009;

²³⁶³ Pages 26-28, Morning Session, Wednesday 2 December 2009;

²³⁶⁴ Brian Norton, 26 November 2009, am, pp53-54;

12. Mr Norton changed in the room immediately to the left of the entrance to the staff quarters on the lower floor²³⁶⁵;

13. Mr Norton was present at the handover from the backshift. He annotated the handover list (production 562)²³⁶⁶;

14. Once the report had been given Mr Norton and Isobel Queen proceeded to administer the nightly medication²³⁶⁷. They started in the dayrooms followed by the bedrooms on the upper floor, then took the medicine trolley to the lift and descended to the lower floor to administer the nightly medication there²³⁶⁸;

15. Mr Norton's understanding was that while he and Ms Queen were attending to the medications the care assistants were putting residents to bed²³⁶⁹;

16. On completion of the medication round Mr Norton returned to room 9. He had noticed that a dressing on Julia McRoberts' leg required attention. He dealt with this at about 2330 hours - midnight²³⁷⁰. In order to do so, Mr Norton would require to have (i) gone to the treatment room, which was off the foyer, and obtained a fresh bandage, (ii) attended at room 9 to change Mrs McRoberts' bandage, and (iii) disposed of the old bandage in the treatment room. In doing so Mr Norton observed nothing out of the ordinary²³⁷¹;

17. Mr Norton then returned to the Rose Lounge in order to assist with putting the remaining residents to bed. Mary McAlinden and Jean Patterson were still up. He

²³⁶⁵ Brian Norton, 26 November 2009, am, p56;

²³⁶⁶ Brian Norton, 26 November 2009, am, pp58-59;

²³⁶⁷ Brian Norton, 26 November 2009, am, p 60;

²³⁶⁸ Brian Norton, 26 November 2009, am, pp61-64;

²³⁶⁹ Brian Norton, 26 November 2009, am, p65;

²³⁷⁰ Brian Norton, 26 November 2009, am, p72;

²³⁷¹ Brian Norton, 26 November 2009, am, pp72-74;

took Mrs McAlinden to her room (room 28) on the lower floor by way of the lift. He did not notice anything untoward when doing so²³⁷²;

18. Having put Mrs McAlinden to bed Mr Norton and Isobel Queen conducted a round of checks of the bedrooms of the lower floor. It is probable that this round was not completed until about 0100 hours. Mr Norton thought that the round took about one hour to complete²³⁷³. If Mrs McAlinden was put to bed at the later of the times suggested by Mr Norton then the round of the lower floor would indeed have been completed at about 0100 hours. This was the time given by Mr Norton to the police when he gave a statement on 8th February 2004²³⁷⁴. Mr Norton noticed nothing out of the ordinary or unusual to this point, least of all any residents smoking in their rooms. Indeed, in all the time that Mr Norton worked at Rosepark he had never seen any residents smoking in their room²³⁷⁵.

19. At about 0130 hours Mr Norton noticed that Bob Innes' buzzer was going off intermittently. He descended to Mr Innes' room (35) on the lower floor. It was not possible to settle him so Mr Norton and Isobel Queen brought him up in the lift to the dining room and made him a cup of tea. He noticed nothing unusual in the time that he went down to, and returned from, the lower floor²³⁷⁶.

20. After attending to Mr Innes it is probable that Mr Norton had a break and a smoke in the smoking room off the Rose Lounge²³⁷⁷;

21. At about 0215 hours Mr Norton heard Nana Murphy's call buzzer sounding. She also was restless. Mr Norton described attending to her on about 8 occasions

²³⁷² Brian Norton, 26 November 2009, am, pp74-77;

²³⁷³ Brian Norton, 26 November 2009, am, p78;

²³⁷⁴ Brian Norton, 26 November 2009, am, pp83-85;

²³⁷⁵ Brian Norton, 26 November 2009, am, pp78-79;

²³⁷⁶ Brian Norton, 26 November 2009, am, pp102-107;

²³⁷⁷ Brian Norton, 26 November 2009, am, pp102-104;

between 0215 and 0300 hours²³⁷⁸ and deciding to sit in with her and settle her down, which he did until about 0400 hours²³⁷⁹.

22. Mr Norton sat with Nana Murphy on the lower floor. He noticed nothing untoward until he heard a thump as Mrs McAlinden in room 28 fell from her bed²³⁸⁰. Mr Norton discovered that she had quite a large bump on her head. He summoned assistance in order that Mrs McAlinden could be taken upstairs and ice applied to her head²³⁸¹;

23. Mr Norton and Ms Queen conveyed Mrs McAlinden to the Rose Lounge in a wheelchair. Mr Norton walked out of the lift backwards pulling the wheelchair. He did not notice anything unusual. He did not hear any noises or see, or smell, any smoke²³⁸²;

24. Mr Norton asked Yvonne Carlyle to get an ice pack for Mrs McAlinden's head. On being told that there were no ice packs he asked her to get a pillow case and fill it with ice. After Miss Carlyle returned Mrs McAlinden wished to be taken to the toilet. Mr Norton took her to the toilet outside the Rose Lounge on the right hand side of the foyer. Up until this point Mr Norton had noticed nothing unusual. While assisting Mrs McAlinden in the toilet Mr Norton heard the sounding of the fire alarm²³⁸³.

25. Mr Norton did not go into cupboard A2 or look inside it on the night of the fire, nor did he notice anything untoward about it²³⁸⁴

²³⁷⁸ Brian Norton, 26 November 2009, am, pp103-104;

²³⁷⁹ Brian Norton, 26 November 2009, am, p103;

²³⁸⁰ Brian Norton, 26 November 2009, am, pp107-109;

²³⁸¹ Brian Norton, 26 November 2009, am, p108;

²³⁸² Brian Norton, 26 November 2009, am, pp108-109; 114-115;

²³⁸³ Brian Norton, 26 November 2009, am, pp110-115;

²³⁸⁴ Brian Norton, 26 November 2009, pm, pp11-12;

Yvonne Carlyle

26. Miss Carlyle, meanwhile, had started work at 2030 hours²³⁸⁵;

27. Her first duty when her shift began was to assist to bed those residents who were still up. On this particular night she helped Mrs McLachlan to have a shower in the shower room near to room 9²³⁸⁶. This took about 15-20 minutes²³⁸⁷. Miss Carlyle then assisted Mrs McLachlan to bed in room 20 (which, as appears from her evidence, Miss Carlyle mistakenly recollected was at the lower level²³⁸⁸). Thereafter, with the assistance of Irene Richmond, Miss Carlyle put to bed Jessie Hadcroft, Nana Murphy, Bob Innes, Jim Daly, Annie Thomson and Jean Patterson²³⁸⁹. Jean Patterson was put to bed at about 2345 hours²³⁹⁰. She and Mary McAlinden were the last residents to be taken to bed²³⁹¹

28. After putting these residents to bed Miss Carlyle and Mrs Richmond conducted a round of the whole of the upper floor. This round lasted about 20-30 minutes and started at the far end of corridor 4, in room 13. Miss Carlyle observed nothing untoward during the course of the round²³⁹². She remembered seeing Thomas Cook (room 16) in his bed between midnight and 0030 hours. His door was open at the time and he was asleep²³⁹³

29. Miss Carlyle was asked whether she had any cause to go into cupboard A2 on the night of the fire²³⁹⁴. On the round of the upper level bedrooms, at about midnight²³⁹⁵, Miss Carlyle had gone to the cupboard to retrieve a roll of tissue. She

²³⁸⁵ Yvonne Carlyle, 27 November 2009, am, p33;

²³⁸⁶ Yvonne Carlyle, 27 November 2009, am, p40;

²³⁸⁷ Yvonne Carlyle, 27 November 2009, am, pp43-44;

²³⁸⁸ Yvonne Carlyle, 27 November 2009, am, p38;

²³⁸⁹ Yvonne Carlyle, 27 November 2009, am, p40-45;

²³⁹⁰ Yvonne Carlyle, 27 November 2009, am, p58;

²³⁹¹ Yvonne Carlyle, 27 November 2009, am, p58;

²³⁹² Yvonne Carlyle, 27 November 2009, am, pp59-60;

²³⁹³ Yvonne Carlyle, 27 November 2009, am, pp57-58;

²³⁹⁴ Yvonne Carlyle, 27 November 2009, pp126-131;

²³⁹⁵ Yvonne Carlyle, 27 November 2009, am, pp128-130;

saw white tissue roll through the door of cupboard A2 which was then ajar. She reached in and took out a roll. The door was just slightly open, sufficient to enable her to put her hand in and take out a roll of tissue. Ms Carlyle thought that she had left the door ajar as she had found it²³⁹⁶;

30. Miss Carlyle recalled that both Bob Innes and Mary McAlinden were brought up to the Rose Lounge because they were unsettled²³⁹⁷. After he had brought Mrs McAlinden upstairs Brian Norton asked Miss Carlyle to get an ice pack for her head. Miss Carlyle fetched a pillow case from the trolley which was then outside room 3. She left the trolley there and obtained ice from the kitchen²³⁹⁸

31. Having brought the ice and pillow case for Mrs McAlinden, Miss Carlyle heard, and answered, a buzzer from Richard Russell in room 6²³⁹⁹. Mr Russell wished his incontinence pad changed. Miss Carlyle took the old pad along the corridor to the sluice room opposite cupboard A2 in corridor 4²⁴⁰⁰. Having disposed of the pad Miss Carlyle returned along the corridor. She was heading to the Matron's office to read some paperwork. On her way there Miss Carlyle was either buzzed or hailed by Mr Russell who wished his door to be closed over a little more. Miss Carlyle pulled the door to within 2 inches of being fully closed. She then headed to the office²⁴⁰¹. She remained in the office for only a very short period of time (described as 5-6 minutes) when another buzzer, for either room 18 or 27, sounded. Miss Carlyle was about to leave, or had just left, the office when the fire alarm sounded²⁴⁰². She observed the fire door at corridor 1 beginning to close²⁴⁰³.

²³⁹⁶ Yvonne Carlyle, 27 November 2009, am, pp130-131;

²³⁹⁷ Yvonne Carlyle, 27 November 2009, am, pp60-62;

²³⁹⁸ Yvonne Carlyle, 27 November 2009, am, pp64-66;

²³⁹⁹ Yvonne Carlyle, 27 November 2009, am, p66;

²⁴⁰⁰ David Thurley, 18 November 2009, am, p3, confirming the position of the sluice room directly opposite cupboards A1 and A2;

²⁴⁰¹ Yvonne Carlyle, 27 November 2009, am, pp67-70, 106-111;

²⁴⁰² Yvonne Carlyle, 27 November 2009, am, p70;

²⁴⁰³ Yvonne Carlyle, 27 November 2009, am, pp111-117;

32. Mr Norton recalled that Miss Carlyle was away looking for a pillow with ice for about 5 minutes. On her return both Mr Norton and Miss Carlyle remained with Mrs McAlinden for about 5 minutes (but again the estimate was not to be taken literally but communicated but a short period of time). A buzzer sounded (which can only have been the buzzer answered by Miss Carlyle at room 6). Miss Carlyle had been away for about 3-4 minutes when Mrs McAlinden said that she needed to visit the toilet²⁴⁰⁴. It was, of course when Mr Norton was with Mrs McAlinden that the fire alarm sounded.

33. The question which of rooms 18 and 27 called was not resolved in Miss Carlyle's evidence. Support for the view that it was room 18 can be found in the evidence of Irene Richmond. She recalled a buzzer sounding while she was outside Nana Murphy's room (27) on the lower floor. The buzzer related to either room 16 or room 18. It was whichever room was occupied by Margaret Gow. Mrs Richmond heard footsteps on the upper level which she thought were in answer to the call. Mrs Richmond accepted as a possibility that there was more than one buzzer but Margaret Gow was the only name she mentioned (both in evidence and to the police) in connection with the occurrence of a buzzer²⁴⁰⁵.

34. Apart from visiting cupboard A2 to obtain the roll of white tissue Miss Carlyle was along at that end of the upper level corridor on a number of occasions during the shift. The laundry cupboard was there. However, Miss Carlyle did not notice anything unusual in any of her visits to corridor 4 throughout the shift prior to the fire alarm²⁴⁰⁶.

Irene Richmond

35. Irene Richmond commenced her shift at 2100 hours²⁴⁰⁷.

²⁴⁰⁴ Brian Norton, 26 November 2009, am, pp115-117;

²⁴⁰⁵ Irene Richmond, 1 December 2009, am, pp72-75;

²⁴⁰⁶ Yvonne Carlyle, 27 November 2009, am, pp131-133;

²⁴⁰⁷ Irene Richmond, 1 December 2009, am, p60;

36. Until the point when the fire alarm had sounded Mrs Richmond had not noticed anything untoward on the night of the fire (apart from some problem of buzzers sounding without having been activated)²⁴⁰⁸.

37. Mrs Richmond did recall that Isabella McLachlan was found in room 9 during one of the routine bed checks although a sensor, designed to alert staff, had not activated²⁴⁰⁹. This was a while before the fire started²⁴¹⁰.

38. Otherwise, Mrs Richmond had passed all the way along the upper floor corridors on numerous occasions during the night, doing hourly checks and answering buzzers, and saw nothing else untoward²⁴¹¹.

39. Mrs Richmond did not have cause to look into cupboard A2 on the night of the fire. She was aware that Yvonne Carlyle may have obtained more white tissue although she was unsure whether that came from the cupboard²⁴¹².

40. Certain of the residents at Rosepark were known wanderers. Mrs Richmond referred in this context to Isabella McLachlan, Helen Crawford, Mary Dick, Thomas Cook, Betty Blakeland, and Mary McAlinden²⁴¹³. Apart from Mrs McLachlan Mrs Richmond could not recall any of the other known wanderers being up and about on the night of the fire²⁴¹⁴.

41. When the fire alarm sounded Mrs Richmond was sitting with Ms Queen outside Nana Murphy's room on the lower floor²⁴¹⁵.

²⁴⁰⁸ Irene Richmond, 1 December 2009, am, pp135-137;

²⁴⁰⁹ Irene Richmond, 1 December 2009, am, pp137-138;

²⁴¹⁰ Irene Richmond, 1 December 2009, am, p137;

²⁴¹¹ Irene Richmond, 1 December 2009, am, pp138-139;

²⁴¹² Irene Richmond, 1 December 2009, am, pp142-143;

²⁴¹³ Irene Richmond, 1 December 2009, am, pp63-64;

²⁴¹⁴ Irene Richmond, 1 December 2009, am, pp143-144;

²⁴¹⁵ Irene Richmond, 1 December 2009, am, p68;

42. Prior to the fire alarm sounding Mrs Richmond and Ms Queen had placed Nana Murphy on a commode in her room and then returned to the lower corridor. Brian Norton had been down at Nana Murphy's room before them, and they had been outside room 27 for quite a while²⁴¹⁶.

43. Before the fire alarm sounded Mrs Richmond heard the nurse call buzzer sound. She thought that the buzzer was for either room 16 or room 18. It was whichever room Margaret Gow was occupying. According to Mrs Richmond, Ms Queen had gone to the nurse call panel and established that it was a buzzer from upstairs which would be answered by either Miss Carlyle or Mr Norton. Mrs Richmond heard footsteps overhead which she assumed was one of them responding to the buzzer (although she was not "100%" sure that this was before or after the buzzer). Mrs Richmond also agreed that it was possible that more than one buzzer sounded²⁴¹⁷.

44. When the fire alarm sounded both Mrs Richmond and Ms Queen went upstairs to the fire panel. They went along the lower floor and ascended the stairs at the lift²⁴¹⁸.

45. Mrs Richmond did not have cause to look into cupboard A2 on the night of the fire²⁴¹⁹

Isobel Queen

46. Ms Queen's shift started at 2115 hours²⁴²⁰;

47. She was on duty with Mr Norton, Miss Carlyle and Mrs Richmond²⁴²¹;

²⁴¹⁶ Irene Richmond, 1 December 2009, am, pp70-71;

²⁴¹⁷ Irene Richmond, 1 December 2009, am, pp73-76;

²⁴¹⁸ Irene Richmond, 1 December 2009, am, pp76-78;

²⁴¹⁹ Irene Richmond, 1 December 2009, am, pp142-143;

²⁴²⁰ Isobel Queen, 2 December 2009, am, p71;

²⁴²¹ Isobel Queen, 2 December 2009, am, p89;

48. Miss Queen recalled nothing untoward occurring during the nightshift prior to the fire alarm sounding²⁴²²

49. Isabella McLachlan, a non smoker,²⁴²³ had wandered out of her room. Ms Queen had found her in room 9 during a check of the residents of the upper floor which Ms Queen had undertaken with Mrs Richmond between 0300 and 0400 hours. Everyone else at that time was asleep in their rooms. Ms Queen took Mrs McLachlan back to room 20²⁴²⁴;

50. At about 0400 hours Ms Queen and Mrs Richmond went down to the lower floor. Their purpose was to relieve Brian Norton. Mr Norton had been looking after Nana Murphy in room 27²⁴²⁵.

51. At about 0420 hours Ms Queen and Mrs Richmond placed Nana Murphy on a commode within her room. They sat outside her room while she was on it. It was then that the fire alarm was heard to sound. Ms Queen and Mrs Richmond headed up to the panel²⁴²⁶.

52. Ms Queen did not go into cupboard A2 on the night of the fire. She had last been in that cupboard about 6 weeks previously²⁴²⁷.

53. Shortly before 0428 hours a fire in cupboard A2 ignited. Within a few minutes it reached the stage of flaming ignition, developed rapidly, and then lasted for between 7 and 10 minutes before effectively extinguishing for lack of oxygen²⁴²⁸

²⁴²² Isobel Queen, 2 December 2009, am, p88

²⁴²³ Isobel Caskie, 16 November 2009, pm, p40

²⁴²⁴ Isobel Queen, 2 December 2009, am, pp104-107;

²⁴²⁵ Isobel Queen, 2 December 2009, am, pp107-109;

²⁴²⁶ Isobel Queen, 2 December 2009, am, p109;

²⁴²⁷ Isobel Queen, 2 December 2009, pm, p75;

²⁴²⁸ Martin Shipp, 13 April 2010, am, p106; 14 April 2010, pm, pp62-67;

54. The fire alarm sounded shortly before 0428.29 hours. This is the start time (corrected from 0532.48 hours) for a sequence of footage on CCTV up to 0533.40 (0429.21) hours when Yvonne Carlyle, and then all three female members of staff, approach the fire panel in the foyer²⁴²⁹.

55. From the foregoing discussion of the evidence about staff movements before the fire alarm sounded, Miss Carlyle was the last member of staff in corridor 4 before the fire alarm sounded. (i) Mr Norton had been sitting with Nana Murphy and was then attending to Mrs McAlinden when Miss Carlyle answered the buzzer from room 6 which took her along to the sluice room; (ii) Miss Carlyle did not visit the sluice room until after Mrs McAlinden had reached the Rose lounge because she had first to retrieve the pillow case and ice for her head; (iii) from about 0400 hours, and certainly after Mr Norton took Mrs McAlinden upstairs, Mrs Richmond and Ms Queen were outside Nana Murphy's room and they remained there until the fire alarm sounded²⁴³⁰.

56. It is likely that Miss Carlyle was in the vicinity of the sluice room, and cupboard A2, within a few minutes of the fire alarm sounding. Even allowing for an additional minute for Miss Carlyle to re-adjust the position of the door to room 6 she cannot have been in corridor 4 earlier than 0421 hours (1 minute to deal with the door and 5-6 minutes to cover Miss Carlyle's estimate of the time she spent in Matron's office before the alarm sounded). It was probably later²⁴³¹. Miss Carlyle did not intend her estimate of 5-6 minutes to be taken literally²⁴³². She intended only to communicate the idea of a very short period of time.

²⁴²⁹ Brian Norton, 26 November 2009, am, pp165-167; Yvonne Carlyle, 27 November 2009, am, pp135-137; Irene Richmond, 1 December 2009, pm, pp6-8; Isobel Queen, 2 December 2009, pm, pp44-46;

²⁴³⁰ Yvonne Carlyle, 27 November 2009, am, pp70, 118-119; Irene Richmond, 1 December 2009, am, pp76-78; Isobel Queen, 2 December 2009, am, p109;

²⁴³¹ See Brian Norton, 26 November 2009, am, pp115-117;

²⁴³² Yvonne Carlyle, 27 November 2009, am, p107;

Smoking Issues

57. At the time of the fire Mr Norton was a smoker²⁴³³. Miss Carlyle was also a smoker²⁴³⁴. Irene Richmond did not smoke²⁴³⁵.

58. There is no evidence that either members of staff or residents smoked cigarettes other than in designated areas on the night of the fire.

59. In all the time he worked at Rosepark Mr Norton never saw any residents smoking in their room. If he had noticed evidence of smoking activity he would have dealt with it²⁴³⁶

60. If Miss Carlyle had smelt smoke in the corridors she would have reported it to the nurse in charge²⁴³⁷. One can reasonably infer from the fact that she returned from the sluice room to Matron's office immediately before the fire that Miss Carlyle did not smell any cigarette smoke in corridor 4 at that time.

61. If Mrs Richmond had smelt smoke in the corridors she would have considered that to be unusual and she would have reported the matter to the nurse in charge²⁴³⁸.

62. There is no evidence that anyone on the night staff other than Brian Norton and Yvonne Carlyle smoked within the building.

²⁴³³ Brian Norton, 26 November 2009, am, p78;

²⁴³⁴ Yvonne Carlyle, 27 November 2009, pm, p9;

²⁴³⁵ Irene Richmond, 1 December 2009, am, p51;

²⁴³⁶ Brian Norton, 26 November 2009, am, pp78-79;

²⁴³⁷ Yvonne Carlyle, 27 November 2009, am, pp32-33;

²⁴³⁸ Irene Richmond, 1 December 2009, am, p51;

63. There were understood to be two designated smoking areas in Rosepark. One was in the room, described as the “Staff Dining Room” in Production 1744, off the Rose Lounge²⁴³⁹. The other smoking room was on the lower floor and is shown in photograph 881F²⁴⁴⁰.

64. When he smoked, Mr Norton used one or other of these areas (and just possibly the staff kitchen on the lower floor²⁴⁴¹), and his understanding was that the other staff smokers did likewise²⁴⁴². If a buzzer were to sound while he was having a cigarette in the staff dining room Mr Norton would be able to hear it. He would extinguish his cigarette and attend to the resident who had called²⁴⁴³. Mr Norton’s practice was to stub out his cigarette and leave his cigarettes and lighter behind if he was called away²⁴⁴⁴.

65. Although Mr Norton was shown a photograph of a packet of “Dorchester” cigarettes in the staff kitchen²⁴⁴⁵ he did not recall smoking that brand of cigarettes. He did, however, agree that it was possible that the “Mayfair” cigarettes in the room shown in photograph 881F may have been his²⁴⁴⁶.

66. Before starting work Mr Norton had a cigarette on the lower floor. He took his cigarettes upstairs in his sports bag. He subsequently had a 2-3 more in the staff dining room upstairs after doing the round of the lower ground floor. He did not smoke anywhere else in the building²⁴⁴⁷.

²⁴³⁹ Brian Norton, 26 November 2009, am, p82-3; Yvonne Carlyle, 27 November 2009, pm, pp10-11;

²⁴⁴⁰ Brian Norton, 26 November 2009, am, pp81-82, 90; Yvonne Carlyle, 27 November 2009, pm, pp9-10;

²⁴⁴¹ Brian Norton, 26 November, am, pp92-100;

²⁴⁴² Brian Norton, 26 November 2009, am, pp81-83;

²⁴⁴³ Brian Norton, 26 November 2009, am, p88;

²⁴⁴⁴ Brian Norton, 26 November 2009, am, p102;

²⁴⁴⁵ Photograph 881R;

²⁴⁴⁶ Brian Norton, 26 November 2009, am, pp90-91;

²⁴⁴⁷ Pages 85-89, 98-100, Morning Session, Thursday 26 November 2009;

67. Miss Carlyle also had a cigarette downstairs in the designated smoking area before her shift began²⁴⁴⁸. During the shift she smoked in the smoking room off the Rose Lounge²⁴⁴⁹. Miss Carlyle did not smoke anywhere else, and she did not see Mr Norton smoking anywhere else either²⁴⁵⁰.

68. At the time of the fire there were three residents of Rosepark who were known to smoke. They were Steven Fanning, Jim Daley²⁴⁵¹ and Tom Wallace²⁴⁵². They all resided on the lower floor.

69. When the lower floor was evacuated after the fire alarm sounded all three of the known smokers were found, asleep, in their beds²⁴⁵³.

70. Apart from Isabella McLachlan none of the other known wanderers were up and about before the fire alarm sounded²⁴⁵⁴.

Movements of Night Staff between Fire Alarm and Call to Fire Brigade

Brian Norton

71. Mr Norton assisted Mrs McAlinden from the toilet. As he emerged into the foyer Isobel Queen was at the fire panel²⁴⁵⁵.

²⁴⁴⁸ Yvonne Carlyle, 27 November 2009, pm, p11;

²⁴⁴⁹ Pages 11-12, Afternoon Session, Friday 27 November 2009;

²⁴⁵⁰ Page 13, Afternoon Session, Friday 27 November 2009;

²⁴⁵¹ Isobel Queen, 2 December 2009, am, pp128-129;

²⁴⁵² Irene Richmond, 1 December 2009, am, pp53-54;

²⁴⁵³ See para. 138 below;

²⁴⁵⁴ Irene Richmond, 1 December 2009, am, pp143-144;

²⁴⁵⁵ Brian Norton, 26 November 2009, am, pp117-118;

72. Mr Norton recalled Ms Queen as saying that the panel was indicating that the fire was in the area where they were²⁴⁵⁶.

73. Mr Norton settled Mrs McAlinden in a chair in the Rose Lounge and checked the kitchen area, the smoking room, the dining room (where Bob Innes was), and the conservatory. He found no signs of any fire or smoke²⁴⁵⁷.

74. Having checked those areas Mr Norton saw that the three female members of staff were “back up stairs”. Mr Norton thought that his colleagues had checked the Matron’s office and surrounding area and gone downstairs. He saw that a resident in a wheelchair (Nana Murphy) had been brought upstairs²⁴⁵⁸.

75. Mr Norton thought that, at this point, Ms Queen, who had returned to the panel, had said that there was no fire and it must be a false alarm²⁴⁵⁹.

76. Ms Queen asked Mr Norton what she should do. He replied by asking her what she would normally do in this situation. Ms Queen replied by saying that she would reset the fire alarm. Mr Norton thought that she tried to reset the fire alarm. The fire panel seemed to light up (like a Christmas Tree, as Mr Norton described it)²⁴⁶⁰. Mr Norton accepted as a possibility that only two lights illuminated after the panel was reset²⁴⁶¹

77. When the alarm sounded for a second time Brian Norton sought to take control of the situation²⁴⁶². He was concerned that something was not right. He decided to go along the upper corridor and investigate what was there²⁴⁶³.

²⁴⁵⁶ Brian Norton, 26 November 2009, am, pp118-120;

²⁴⁵⁷ Brian Norton, 26 November 2009, am, pp120-122;

²⁴⁵⁸ Brian Norton, 26 November 2009, am, p122;

²⁴⁵⁹ Brian Norton, 26 November 2009, am, pp122-123;

²⁴⁶⁰ Brian Norton, 26 November 2009, am, pp125-130;

²⁴⁶¹ Brian Norton, 26 November 2009, am, p131;

²⁴⁶² Brian Norton, 26 November 2009, pm, pp51-52;

78. Mr Norton headed along the upper floor to the area of the lift. The fire two fire doors before the lift were closed. Mr Norton thought that the other members of staff followed him. When he reached corridor 2 Mr Norton observed a large amount of black smoke billowing out from the area of a store cupboard beyond the lift on his right hand side. The smoke appeared to be coming from the ceiling and descended about one third of the corridor 2 space. It was filling the space very rapidly and seemed to emanate from the vent shown in photograph 332B²⁴⁶⁴.

79. Mr Norton thought that the fire was where the lift was. He shouted over his shoulder that there was a big fire and that the Fire Brigade should be called²⁴⁶⁵.

80. He decided to go downstairs, along the lower level corridor and up the far stairs to render assistance to the residents beyond the smoke in the upper level corridors before they were trapped. He grabbed Miss Carlyle and, together, they set off down the stairs²⁴⁶⁶.

Yvonne Carlyle

81. Miss Carlyle was the first to arrive at the fire panel. She saw a flashing light on the panel²⁴⁶⁷. She did not examine it; that was a matter for the nurse in charge²⁴⁶⁸.

82. Isobel Queen and Irene Richmond arrived at the panel. Ms Queen said that the panel was showing a zone. Miss Carlyle reported to the police that Ms Queen had mentioned zone number 3 and that zone 3 was down the stairs. Ms Queen had also said that the panel was different to the one in place when the alarm had sounded before Christmas and that she did not know how to use it²⁴⁶⁹. Miss Carlyle recalled

²⁴⁶³ Brian Norton, 26 November 2009, am, p129;

²⁴⁶⁴ Brian Norton, 26 November 2009, am, pp130-139;

²⁴⁶⁵ Brian Norton, 26 November 2009, am, pp139-140;

²⁴⁶⁶ Brian Norton, 26 November 2009, am, pp139-141;

²⁴⁶⁷ Yvonne Carlyle, 27 November 2009, am, p119;

²⁴⁶⁸ Yvonne Carlyle, 27 November 2009, am, p71;

²⁴⁶⁹ Yvonne Carlyle, 27 November 2009, am, p119-120;

Ms Queen to say that they had to check down the stairs because it was showing up down the stairs²⁴⁷⁰.

83. Miss Carlyle, Isobel Queen and Irene Richmond went along the corridor and down the stairs by the lift to the lower level²⁴⁷¹.

84. Between them they checked all of the corridors and rooms on the lower level, including the laundry and staff room. They found nothing out of the ordinary. Miss Carlyle and Mrs Richmond then went to Nana Murphy (who was still on a commode in room 27²⁴⁷²), placed her in a reclining chair and brought her by the lift to the Rose Lounge. The corridor fire doors were closed. Miss Carlyle noticed nothing unusual when they came out of the lift²⁴⁷³.

85. After taking Nana Murphy to the Rose Lounge Miss Carlyle returned to the fire panel with the other members of the night staff. The alarm was sounding continuously. Ms Queen tried to reset the alarm using a key. The alarm went off but sounded again after a few seconds²⁴⁷⁴.

86. When the alarm sounded again Miss Carlyle and Miss Queen followed Brian Norton along the corridor in the direction of the lift²⁴⁷⁵. Mrs Richmond remained in the Rose Lounge²⁴⁷⁶.

87. When they opened the door to corridor 2 they could see smoke. It was coming down from the ceiling next to the lift shaft. Miss Queen identified the smoke by reference to the metal arm of the door closer unit in the top right hand corner of

²⁴⁷⁰ Yvonne Carlyle, 27 November, am, pp71-72;

²⁴⁷¹ Yvonne Carlyle, 27 November 2009, am, pp72-74

²⁴⁷² Yvonne Carlyle, 27 November 2009, am, p123;

²⁴⁷³ Yvonne Carlyle, 27 November 2009, pp75-80;

²⁴⁷⁴ Yvonne Carlyle, 27 November 2009, am, pp82-85;

²⁴⁷⁵ Yvonne Carlyle, 27 November 2009, am, pp85-87, 123-125;

²⁴⁷⁶ Yvonne Carlyle, 27 November 2009, am, pp124-125;

photograph 332B²⁴⁷⁷. The smoke was thick and very black²⁴⁷⁸. Mr Norton told Ms Queen to call the Fire Brigade²⁴⁷⁹.

88. At this point Mr Norton told Miss Carlyle to go with him down to the lower level. If they had stood upright in corridor 2, where the smoke was congregating, their heads would have been in the smoke²⁴⁸⁰.

Irene Richmond

89. When the alarm sounded Ms Queen and Irene Richmond were sitting outside Nana Murphy's room. They had just put Nana Murphy on a commode²⁴⁸¹.

90. They went upstairs to the fire alarm panel in the foyer via the stairs at the lift²⁴⁸². Ms Queen did not recognize the panel²⁴⁸³. It was not the same panel as had been in use at the time when the fire alarm sounded in December 2003.

91. Ms Queen tried to identify which zone was indicated. She accepted as accurate her statement to the police on 31 January 2004 that zone 3 was showing on the panel²⁴⁸⁴. According to Mrs Richmond (by reference to her police statement dated 31 January 2004) Miss Queen said that the fire panel was indicating zone 3²⁴⁸⁵ and that zone 3 was up to the lift²⁴⁸⁶.

²⁴⁷⁷ Yvonne Carlyle, 27 November 2009, am, pp88-89;

²⁴⁷⁸ Yvonne Carlyle, 27 November 2009, am, pp90, 125;

²⁴⁷⁹ Yvonne Carlyle, 27 November 2009, am, pp90-91, 125;

²⁴⁸⁰ Yvonne Carlyle, 27 November 2009, am, pp91-92, 125-126;

²⁴⁸¹ Irene Richmond, 1 December 2009, am, pp68, 77, 98;

²⁴⁸² Irene Richmond, 1 December 2009, am, pp77-78;

²⁴⁸³ Irene Richmond, 1 December 2009, am, p81; Isobel Queen, 2 December 2009, am, pp111-112;

²⁴⁸⁴ Isobel Queen, 2 December 2009, am, pp123-124;

²⁴⁸⁵ Irene Richmond, 1 December 2009, am, pp 87-90

²⁴⁸⁶ Irene Richmond, 1 December 2009, am p100;

92. Mrs Richmond did not have a clear understanding of the whereabouts of zone 3. She related it to the first section of the upper floor near to the lift²⁴⁸⁷.

93. She and Miss Queen left the foyer area and headed to the lift. They checked the area of, but not beyond, the lift. They saw nothing, and decided to check downstairs²⁴⁸⁸.

94. Mrs Richmond and Miss Queen went downstairs. They went to check Mr Fanning's room. He was a smoker who they thought might have cigarettes in his possession²⁴⁸⁹. Miss Carlyle was probably with them by this point²⁴⁹⁰. The lower floor corridor, smoking room, staffroom and the laundry room were all checked²⁴⁹¹.

95. Nana Murphy was still on the commode. Miss Queen suggested that she should be taken off the commode and taken upstairs. Mrs Richmond and Miss Carlyle put her in a wheelchair and brought her back up in the lift and taken to the Rose Lounge²⁴⁹².

96. The alarm was still sounding. Mrs Richmond's recollection of what followed was hazy. However, she did recall attending those residents who were already in the Rose Lounge. She thought that Mr Norton and Miss Queen approached the fire alarm panel again. In an undated statement to the police taken shortly after the fire Mrs Richmond said that she thought Miss Queen had said that the panel was showing zone 2 and that zone 2 covered the area beyond zone 3 on the upper level. She also recalled that the alarm was silenced before going off again and that the other members of staff

²⁴⁸⁷ Irene Richmond, 1 December 2009, am, pp87-96;

²⁴⁸⁸ Irene Richmond, 1 December 2009, am, pp94-102;

²⁴⁸⁹ Irene Richmond, 1 December 2009, am, pp103-104;

²⁴⁹⁰ Irene Richmond, 1 December 2009, am, p104;

²⁴⁹¹ Irene Richmond, 1 December 2009, am, pp105-106; 108-109;

²⁴⁹² Irene Richmond, 1 December 2009, am, pp106-110;

went to investigate zone 2 while she remained in the sitting room with Mrs McAlinden²⁴⁹³.

97. Mrs Richmond remained in the Rose Lounge until Miss Queen returned a few minutes later. Miss Queen told her that they had found smoke and that she had called the Fire Brigade²⁴⁹⁴

98. Mrs Richmond and Miss Queen then evacuated the residents in corridor 1 (rooms 1, 2, 3, 21 and 22) and took them to the Rose Lounge²⁴⁹⁵. Having done so they opened the door to corridor 2²⁴⁹⁶ but could go no further because of the smoke²⁴⁹⁷. They returned to the foyer and Miss Queen made phone calls (she thought) to Mr Balmer and the Matron²⁴⁹⁸.

Isobel Queen

99. The fire alarm went off after Miss Queen and Mrs Richmond had put Nana Murphy on the commode²⁴⁹⁹.

100. Miss Queen ran upstairs, with Mrs Richmond behind her, and went to the fire panel²⁵⁰⁰.

101. When she arrived at the fire panel, Miss Queen noticed that it had been changed. She was unfamiliar with the panel and the zones²⁵⁰¹. She recalled panicking because

²⁴⁹³ Irene Richmond, 1 December 2009, am, pp114-119;

²⁴⁹⁴ Irene Richmond, 1 December 2009, am, p119;

²⁴⁹⁵ Irene Richmond, 1 December 2009, am, pp121-125;

²⁴⁹⁶ Irene Richmond, 1 December 2009, am, pp123-124;

²⁴⁹⁷ Irene Richmond, 1 December 2009, am, pp124-125;

²⁴⁹⁸ Irene Richmond, 1 December 2009, am, p125;

²⁴⁹⁹ Isobel Queen, 2 December 2009, am, p123;

²⁵⁰⁰ Isobel Queen, 2 December 2009, am, pp123-124;

²⁵⁰¹ Isobel Queen, 2 December 2009, am, pp110-112;

the zone descriptions were not positioned where they had been on the previous panel but were down below²⁵⁰²

102. Miss Queen accepted as truthful her account to the police, recorded in her statement bearing the erroneous date 2 January 2004, that when she looked at the panel three red dots were flashing above zone 3²⁵⁰³. In her statement to the police on the morning of the fire Miss Queen also stated that the fire panel had indicated zone 3 (although Miss Queen had no recollection of providing the recorded information that zone 3 was from the front door to the lift²⁵⁰⁴).

103. Miss Queen thought that Miss Carlyle, Mrs Richmond and she had then checked the rooms along the upper floor from the fire panel to the lift²⁵⁰⁵. Aided by the police statement dated 2 January 2004 she recalled running into corridor 1 and checking rooms 1, 2 and 22 because their doors were open²⁵⁰⁶. She found nothing untoward there. Miss Carlyle thought that Miss Queen had indicated downstairs²⁵⁰⁷. Station Officer Campbell stated “I was given a zone number. I am not 100% sure at this stage what number that was ... it could possibly have been 3 ... however, it was definite information. They told me that that had led them to going down to the lower level, to the lift area, and at that point they had witnessed smoke coming from the lift area at that level”²⁵⁰⁸. A newspaper article reported Miss Queen as having said that the alarm panel indicated that the fire was downstairs²⁵⁰⁹. Mr Norton did not recall Miss Queen indicating that the fire was at the lower level²⁵¹⁰. Mrs Richmond thought that Miss Queen had said zone 3 was up to the lift on the upper level. However Officer in Charge was clear that he had been told that the staff had witnessed smoke coming from the lift area at the lower level. He particularly recalled “They had to go down and it was at the lower ground level and was at the lift”. Station Officer Campbell

²⁵⁰² Isobel Queen, 2 December 2009, am, pp125-126;

²⁵⁰³ Isobel Queen, 2 December 2009, am, pp120-122, 125;

²⁵⁰⁴ Isobel Queen, 2 December 2009, am, pp123-125;

²⁵⁰⁵ Isobel Queen, 2 December 2009, am, pp115-117;

²⁵⁰⁶ Isobel Queen, 2 December 2009, am, pp127-128;

²⁵⁰⁷ Yvonne Carlyle, 27 November 2010, am, p120;

²⁵⁰⁸ Steven Campbell, 8 January 2010, am, pp25-26;

²⁵⁰⁹ Isobel Queen, 2 December 2010, pm, pp83-87;

²⁵¹⁰ Brian Norton, 26 November 2009, am, p125;

stated “As far as I was concerned, I was dealing with staff members who were familiar with the building, familiar with the layout of the building, and as far as I was concerned, I was given precise information, and the fact that they reported smoke at that level reinforced that belief”. Station Officer Campbell was advised that persons on the lower level were unaccounted for. He asked what the situation was with regard to residents on the upper level. He was told that the residents were still in their rooms and had not been evacuated. He asked staff (probably Isobel Queen) where the seat of the fire was and she stated “to the best of their knowledge the fire was in the lift shaft”. Station Officer Campbell went to the lift shaft and what he saw there confirmed what he had been told.

104. Miss Queen stated that, after she had checked rooms 1, 2 and 22 she ran to the lower level with Miss Carlyle and Mrs Richmond and checked on Stevie Fanning, one of the resident smokers²⁵¹¹. There were other smokers in Rosepark but Miss Queen thought that Mr Fanning was more likely to have a cigarette or lighter in his bedroom²⁵¹². Miss Queen went into Mr Fanning’s room and switched on the light. Mr Fanning got a fright because he was asleep. Miss Queen then checked the laundry and found everything to be in order²⁵¹³.

105. Ms Queen returned to the fire panel via the stairs by the lift shaft. When she came back up the stairs Miss Queen noticed nothing unusual; in particular she noticed no smoke²⁵¹⁴.

106. Miss Queen’s intention was to silence the alarm so as to stop disturbing the residents²⁵¹⁵. She managed to silence the alarm but it immediately sounded again²⁵¹⁶.

²⁵¹¹ Isobel Queen, 2 December 2009, am, pp128-129;

²⁵¹² Isobel Queen, 2 December 2009, am, pp117-118;

²⁵¹³ Isobel Queen, 2 December 2009, am, p129

²⁵¹⁴ Isobel Queen, 2 December 2009, am, pp119-120;

²⁵¹⁵ Isobel Queen, 2 December 2009, pm, p10;

²⁵¹⁶ Isobel Queen, 2 December 2009, pm, pp14-15;

107. Ms Queen accepted as truthful her statement to the police on 2 January 2004 that the alarm went off again indicating zone 2, and that zone 2 was from the third fire door to the end of the corridor on the upper landing²⁵¹⁷. This statement accords with Mrs Richmond's recollection of the position²⁵¹⁸ which suggests that it is accurate. Ms Queen described "panic" that the alarm had sounded again²⁵¹⁹.

108. At this point Mr Norton decided to go along the corridor to investigate. Miss Queen followed him along to the fire door before the lift. Mr Norton opened the door, said that there was smoke, and that she should call the Fire Brigade²⁵²⁰

109. Isobel Queen returned to Matron's office and called the Fire Brigade²⁵²¹

The Fire Alarm Panel

110. The existence of a new panel, coupled with the old zone card, created the potential for confusion. In her evidence Ms Queen described how she recalled panicking because the zones were not set out where they had been with the previous panel²⁵²². This was a matter that received consideration by Michael Gray, a specialist in ergonomics and human practice, in his reports comprising Crown productions 1140 and 1196. The former report considered the ergonomic characteristics of the fire alarm panel and the latter report compared it with a replica of the previous fire alarm panel at Rosepark²⁵²³. Mr Gray concluded that (i) the arrangement and layout of the fire panel at Rosepark on 31 January 2004 did not adequately support staff in identifying the correct zones, and (ii) having to deal with an unfamiliar panel in an emergency situation would increase the difficulty in using the panel properly²⁵²⁴. For the avoidance of doubt, the fire panel from the evidence, clearly indicated the zone

²⁵¹⁷ Isobel Queen, 2 December 2009, pm, pp17-18;

²⁵¹⁸ Irene Richmond, 1 December 2009, pp120-121;

²⁵¹⁹ Page 16, Afternoon Session, Wednesday 2 December 2009;

²⁵²⁰ Isobel Queen, 2 December 2009, pm, pp18-22;

²⁵²¹ Isobel Queen, 2 December 2009, pm, p23;

²⁵²² Pages 126-127, Morning Session, Wednesday 2nd December 2009;

²⁵²³ Joint Minute, paragraph 220;

²⁵²⁴ Pages 132-133, Morning Session, Wednesday 21 April 2010;

number which had been operated. The confusion arose from the interpretation of the contents of the zone card. I have found that zone numbers were identified by Isobel Queen. It was the area to which that zone number related that caused confusion.

111. In the comparison between the two panels Mr Gray concluded that the previously installed panel would have allowed someone to locate the zone affected by fire more easily than the replacement panel²⁵²⁵. Critically, he offered the opinion that, even if the zone panel were the same as previously, it would be hard for the user to make any assumptions about whether the zones had changed because things like the old panel which made the zone recognizable were no longer there²⁵²⁶. On the night confusion and uncertainty there evidently was²⁵²⁷.

CCTV Footage of Staff Movements before the Call to the Fire Brigade

112. The movements of staff at the time when the fire alarm sounded have already been noticed. That footage showed that Isobel Queen, Yvonne Carlyle and Irene Richmond all gathered at the panel. Ms Queen confirmed that this was the first time that she approached the panel²⁵²⁸. Hands can be seen around the panel, pointing at the panel and at something (almost certainly the zone card) below it²⁵²⁹.

113. When the CCTV was paused at 0534.42 (0430.23) hours Yvonne Carlyle was able to identify Mrs Richmond and herself moving away from the fire panel. Miss Carlyle thought that they were going to check for fire down on the lower level²⁵³⁰.

114. At 0535.09 (0430.50) hours Ms Queen identified herself walking away from the panel while speaking in the direction of an area to the left of camera where Brian

²⁵²⁵ Pages 150-151, Morning Session, Wednesday 21 April 2010;

²⁵²⁶ Pages 1-2, Afternoon Session, Wednesday 21 April 2010;

²⁵²⁷ Brian Norton, 26 November 2009, pm, p55; see also Mr Gray's commentary in the report 1140, section 2;

²⁵²⁸ Isobel Queen, 2 December 2009, pm, pp45-46;

²⁵²⁹ Brian Norton, 26 November 2009, am, pp166-167;

²⁵³⁰ Yvonne Carlyle, 27 November 2009, am, p142;

Norton then was. She was seen to walk away in the same direction as Miss Carlyle and Mrs Richmond. She was leaving to check the rooms up to the lift shaft. Mr Norton confirmed that this was at a time when he had been checking the rooms around the foyer and his colleagues had gone downstairs²⁵³¹.

115. At 0538.30 hours (0433.11) Miss Queen is observed to return to the fire panel. Miss Queen had been to the lift shaft and downstairs to the laundry and smokeroom. She had then returned to the panel²⁵³².

116. At 0538.51 (0433.32) hours Yvonne Carlyle passed the camera pushing Nana Murphy in a wheelchair (described earlier in her evidence as a reclining chair)²⁵³³. Nana Murphy had been brought up in the lift from room 27. Nothing unusual had been noticed in corridor 2²⁵³⁴.

117. When the CCTV was paused at 0539.52 (0435.33) hours Mr Norton, Miss Carlyle and Miss Queen all spoke to hand activity in way of the panel and immediately below it after the female members of staff had returned from the lower level. Miss Queen agreed that showed a period of considerable uncertainty²⁵³⁵.

118. When the CCTV was paused at about 0540.07 (0435.48) hours, or within a few seconds of that time, all members of the night staff agreed that they had just seen Miss Queen's attempt to reset the fire alarm and the alarm immediately sounding again.

²⁵³¹ Isobel Queen, 2 December 2009, pm, pp47-48; Brian Norton, 26 November 2009, am, p172;

²⁵³² Brian Norton, 26 November 2009, am, pp172-173; Yvonne Carlyle, 27 November 2009, p145; Isobel Queen, 2 December 2009, pm, pp49-50;

²⁵³³ Brian Norton, 26 November 2009, am, pp173-174; Yvonne Carlyle, 27 November 2009, p146; Isobel Queen, 2 December 2009, pm, p50;

²⁵³⁴ Yvonne Carlyle, 27 November 2009, pp75-80;

²⁵³⁵ Brian Norton, 26 November 2009, am, p175; Yvonne Carlyle, 27 November 2009, p148-149; Isobel Queen, 2 December 2009, pm, pp53-54;

Miss Carlyle agreed that she and Mrs Richmond appeared to jump. Mrs Richmond certainly agreed that she appeared startled because the alarm had sounded again²⁵³⁶.

119. When the CCTV was paused at 0540.43 (0436.24) hours Miss Carlyle was visible in the vicinity of the fire panel. She agreed that she was looking perplexed²⁵³⁷. There ensues a sequence of footage until 0540.58 (0436.39) hours when various staff members are seen coming and going in the vicinity of the fire panel²⁵³⁸.

120. When the CCTV footage was paused at 0540.58 (0436.37) a significant development is identified. Mr Norton confirmed that he had been seen heading away from the foyer to where the lift was²⁵³⁹. Irene Richmond identified Mr Norton, Miss Carlyle and Miss Queen leaving the panel²⁵⁴⁰. Miss Queen observed that she had been seen looking at the fire panel, and had then headed off with Mr Norton and Miss Carlyle²⁵⁴¹. It is apparent from what followed that this was the time when Mr Norton, followed by Miss Carlyle and Miss Queen, headed to corridor 2 and discovered thick, black smoke.

121. When the CCTV was paused at 0542.47 (0438.28) hours Irene Richmond was able to identify what had just occurred. Isobel Queen had just moved past the camera from right to left. Mrs Richmond thought that Miss Queen was heading to the Rose Lounge at this point to tell her that she had called the Fire Brigade²⁵⁴²

²⁵³⁶ Brian Norton, 26 November 2009, am, p176; Yvonne Carlyle, 27 November 2009, p149-150; Irene Richmond, 1 December 2009, pm, p14; Isobel Queen, 2 December 2009, pm, pp53-55;

²⁵³⁷ Yvonne Carlyle, 27 November 2009, am, p152;

²⁵³⁸ Brian Norton, 26 November 2009, am, pp177-178; Yvonne Carlyle, 27 November 2009, p152-153; Irene Richmond, 1 December 2009, pm, p16; Isobel Queen, 2 December 2009, pm, pp56-57;

²⁵³⁹ Brian Norton, 26 November 2009, am, p179;

²⁵⁴⁰ Irene Richmond, 1 December 2009, pm, p17;

²⁵⁴¹ Isobel Queen, 2 December 2009, pm, pp57-58;

²⁵⁴² Irene Richmond, 1 December 2009, pm, pp18-19;

The Call to the Fire Brigade

122. The call to the Fire Control Centre at Johnstone, handled by Joyce Wood, was received at 0437.32 hours²⁵⁴³.

123. Label 53 is a recording of the call to the Fire Control Centre. Production 566 is a transcript of the call. While the call was made the fire alarm at Rosepark Care Home was audible to the control operator in the background²⁵⁴⁴.

124. Ms Queen knew that the bottom gate at New Edinburgh Road was locked. She therefore told the Fire Brigade, mistakenly, to enter via Rosepark Gardens. The correct address was Rosepark Avenue²⁵⁴⁵. The Incident Commander knew that Rosepark Avenue was in New Edinburgh Road. This was confirmed from the address on the callout slip which stated “Rosepark Care Home New Edinburgh Road”. The fact that the address given on the telephone was Rosepark Gardens and not Rosepark Avenue was immaterial.

125. Ms Queen also mentioned the lift to the call operator because at that time that was where she thought the fire was²⁵⁴⁶.

The Actions of Ms Queen and Ms Richmond after the call to the Fire Brigade

126. Having made the call Ms Queen and Mrs Richmond’s movements can be traced through the CCTV footage.

²⁵⁴³ Pages 23-31, Morning Session, Friday 4 December 2009; Production 928, Turn-Out Slip; (See also the evidence of Irene Richmond and Isobel Queen under reference to the latter seen returning to the Rose Lounge *after* making the call, timed on CCTV AT 0542.47 hours (or 0438.28) - the latter timings are significant in respect that they confirm that, broadly, the timings contained in the CCTV footage (after correction) and the timings contained in the Fire Brigade Incident Log are mutually consistent)

²⁵⁴⁴ Joint Minute, part II, paragraph 83;

²⁵⁴⁵ Pages 29-30, Afternoon Session, Wednesday 2 December 2009;

²⁵⁴⁶ Page 29, Afternoon Session, Wednesday 2 December 2009;

127. When the CCTV was paused at 0543.18 (0438.59) hours Miss Queen had been seen to go to the door entry control pad and opening the main door for the Fire Brigade²⁵⁴⁷.

128. When the CCTV was paused at 0544.50 (0440.31) hours Miss Queen had been seen to move across the screen from left to right at speed. Miss Queen related this to the process of evacuation to the Rose Lounge of the residents of rooms 1, 2, 3, 22 and 23²⁵⁴⁸.

129. When the CCTV was paused at 0545.29 (0441.10) hours both Miss Queen were seen to have headed towards the Rose Lounge each assisting an elderly lady.

130. Miss Queen and Mrs Richmond took the residents whom they were able to evacuate to the Rose Lounge²⁵⁴⁹. They then returned to the second fire door (ie. fire door between corridors 1 and 2) with Mrs Richmond. They did so with the intention of going beyond it. There was thick black smoke beyond the door. They covered their mouths with incontinence pads (their hands, according to Mrs Richmond²⁵⁵⁰) but were forced back by the smoke. They shouted on Mr Norton and Miss Carlyle but received no response²⁵⁵¹.

131. Ms Queen then telephoned Thomas Balmer. He told her to telephone Joe Clark (which she did). Ms Queen was unable to raise Sadie Meaney²⁵⁵².

132. When the CCTV footage was paused at 0548.45 (0444.26) Firefighter David Buick had been seen to enter Rosepark²⁵⁵³

²⁵⁴⁷ Isobel Queen, 2 December 2009, pm, pp60-61; Irene Richmond, 1 December 2009, pm, pp20-22;

²⁵⁴⁸ Isobel Queen, 2 December 2009, pm, pp32, 63-64

²⁵⁴⁹ Isobel Queen, 2 December 2009, pm, p32;

²⁵⁵⁰ Irene Richmond, 1 December, am, p124;

²⁵⁵¹ Isobel Queen, 2 December 2009, pm, pp32-34;

²⁵⁵² Isobel Queen, 2 December 2009, pm, pp35-26

The Actions of Mr Norton and Ms Carlyle after the call to the Fire Brigade

133. Brian Norton and Yvonne Carlyle descended to the lower ground floor. It was Mr Norton's decision to do so²⁵⁵⁴. They ran along the lower ground floor corridor, intending to go up the back stairs²⁵⁵⁵. There was no smoke in this corridor, and the lights were on²⁵⁵⁶. They reached the far end of the lower ground floor corridor. Mr Norton opened the fire door and started to climb the stairs. He was horrified to discover acrid, thick, black smoke filling half of the stairwell²⁵⁵⁷.

134. Mr Norton got about three quarters of the way up the stairs, perhaps slightly farther²⁵⁵⁸. Miss Carlyle appears to have followed him some distance up the stairs²⁵⁵⁹. Both Mr Norton and Miss Carlyle and he could hear crackling sound coming from the other side of the fire door at the top of the stairs (the far end of corridor 4b)²⁵⁶⁰. Mr Norton realised that this was where the fire was. He knew that they could not go any further²⁵⁶¹.

135. To Mr Norton the sound of crackling sounded like wood burning²⁵⁶². Having regard to Mr Norton's description of running down the stairs and along the lower ground floor corridor, the fact that Mr Norton could hear what he thought was wood burning in corridor 4b is consistent with the presence of a fire in that area sufficient to melt the hands of the clock in room 12 – a room with an open door - and bring it to a stop at about 0440 hours.

²⁵⁵³ Irene Richmond, 1 December 2009, pm, p27; Isobel Queen, 2 December 2009, pm, pp65-66; David Buick, 7 December 2009, am, pp46-47;

²⁵⁵⁴ Brian Norton, 26 November 2009, am, p139;

²⁵⁵⁵ Yvonne Carlyle, 27 November 2009, am, p97;

²⁵⁵⁶ Brian Norton, 26 November 2009, am, pp141-142;

²⁵⁵⁷ Brian Norton, 26 November 2009, am, pp142-144;

²⁵⁵⁸ Brian Norton, 26 November 2009, am, p143;

²⁵⁵⁹ Yvonne Carlyle, 27 November 2009, am, pp98-99;

²⁵⁶⁰ Brian Norton, 26 November 2009, am, pp143-144; Yvonne Carlyle, 27 November 2009, am, pp97-98;

²⁵⁶¹ Brian Norton, 26 November, am, pp143-144;

²⁵⁶² Brian Norton, 26 November 2009, am, p144;

136. Mr Norton decided to evacuate the lower ground floor residents. He was concerned that if they did not organize an evacuation of the residents they might become trapped between two lots of smoke at either end of the corridor²⁵⁶³.

137. Mr Norton and Miss Carlyle woke all of the residents on the lower ground floor in order to evacuate them. The few residents who were able to get up on their own did so. Those who could not were manoeuvred into wheelchairs and wrapped in quilts. The residents were moved to the corridor. While doing so he noticed smoke seeping through the fire door from the stairwell that he and Miss Carlyle had just tried to ascend²⁵⁶⁴. When Mr Norton and Miss Carlyle began evacuating them, all of the residents had been in their rooms²⁵⁶⁵.

138. There were three smokers resident in Rosepark at the time of the fire. They were Tom Wallace, Stevie Fanning and Jim Daly. All three residents had bedrooms on the lower ground floor²⁵⁶⁶. When Mr Norton and Miss Carlyle went to the assistance of the lower ground floor residents they found the three resident smokers in their beds, asleep. Although Mr Fanning could wander a bit he was asleep that night²⁵⁶⁷.

139. Mr Norton checked all of the rooms on the lower ground floor to make sure that no one was left in their room. The last room to be checked was room 23. After checking this room Mr Norton noticed a blue flashing light outside²⁵⁶⁸.

140. Mr Norton decided to attempt an evacuation via the fire exit at the lift shaft end of the corridor. He thought that this route afforded the best chance of success. It

²⁵⁶³ Brian Norton, 26 November 2009, am, p145; Yvonne Carlyle, 27 November 2009, am, p100

²⁵⁶⁴ Brian Norton, 26 November 2009, am, pp145-147, 150; Yvonne Carlyle, 27 November 2009, am, pp101-105;

²⁵⁶⁵ Brian Norton, 26 November 2009, am, p151; Yvonne Carlyle, 27 November 2009, am, p106;

²⁵⁶⁶ Yvonne Carlyle, 27 November 2009, pm, p65;

²⁵⁶⁷ Yvonne Carlyle, 27 November 2009, pm, pp65-66;

²⁵⁶⁸ Brian Norton, 26 November 2009, am, p154

would be taking people away from where the fire appeared to be. If they could not get through M Norton contemplated breaking a window²⁵⁶⁹.

141. Mr Norton approached the fire door on the lower level nearest the lift. Just before he reached the door two firemen (BA team 1 from the Bellshill fire appliance) wearing breathing apparatus came through the door. One of the firefighters remained with Mr Norton, Miss Carlyle and the residents. The other firefighter went to open the fire exit. The residents were then evacuated through the fire exit door²⁵⁷⁰.

142. In the result, thanks in large measure to the efforts of Mr Norton and Miss Carlyle, all of the residents from the lower level were successfully evacuated. Their actions, in dangerous and frightening conditions, ought to excite the highest admiration. However, such was the attention that Mr Norton and Miss Carlyle were giving to the residents on the lower level, no communication was made to Isobel Queen that there was smoke beyond the fire door at the end of the lower ground corridor, from which steps led to the upper floor. In turn this information was not relayed to the Fire Brigade when they arrived.

Mobilization, arrival and deployment of the Fire Brigade

Summary of Attending Appliances

143. A total of six appliances were mobilised to the incident at Rosepark on 31st January 2004. The following is a summary of the movements of those appliances as disclosed in the Incident Resource History²⁵⁷¹.

EO31 – Bellshill Appliance – Pre-determined attendance

Mobilised. 0438.46 hours

Mobile Time. 0440.33 hours

Attend Time. 0442.12

²⁵⁶⁹ Brian Norton, 26 November 2009, am, p148;

²⁵⁷⁰ Brian Norton, 26 November 2009, am, pp155-157

²⁵⁷¹ Production, 270, p4; Victoria Neill, 4 December 2010, am, pp92-93, 106-16;

E012 – Hamilton Second Appliance – Pre-determined attendance

Mobilised. 0438.46 hours

Mobile Time. 0442.03 hours

Attend time. 0447.06 hours

E011 – Hamilton First Appliance – Make Pumps 3 response

Mobilised. 0456.32 hours

Mobile Time. 0458.57 hours

Attendance Time. 0552.42 hours (erroneous – probably c.0505 hours)

E042 – Coatbridge Second Appliance – Make Pumps 4 response

Mobilised. 0506.09 hours

Mobile Time. 0509.43 hours

Attend Time. 0525.32 hours

E022 – Motherwell Second Appliance – Make Pumps 6 response

Mobilised. 0526.01 hours

Mobile Time. 0528.18 hours

Attend Time. 0537.14 hours

E041 – Coatbridge First Appliance – Make Pumps 6 response

Mobilised. 0526.01 hours

Mobile Time. 0528.23 hours

Attend Time. 0537 hours

Fire Brigade Attendance and Deployment

144. The fire at Rosepark Care Home fell within the area of operation of Bellshill Fire Station²⁵⁷². One fire appliance was stationed there²⁵⁷³. The callsign for the Bellshill appliance was EO31²⁵⁷⁴.

145. On the night of the incident Bellshill Fire Station was being manned by Blue Watch²⁵⁷⁵. Blue watch comprised Station Officer Steven Campbell, Sub-Officer James Clark, Firefighter David Buick, Firefighter Colin Mackie, and Firefighter Paul Caldwell. Mr Caldwell was the driver of the appliance²⁵⁷⁶.

146. With the exception of Mr Clark, none of the members of Blue Watch had previously visited Rosepark²⁵⁷⁷. Mr Clark's recollection of his visit, perhaps two or three years before the fire was vague. He could not recall which entrance he went to, and did not think that he would have remembered if the entrance had been at Rosepark Avenue²⁵⁷⁸

147. Two appliances were mobilized to the incident. They were the Bellshill appliance and the second appliance from Hamilton Fire Station (callsign E012). The time of mobilization of EO31 and E012 is recorded as 0438.46 hours, and EO31 was mobile to the incident (in the sense of being underway) at 0440.33 hours²⁵⁷⁹.

²⁵⁷² Evidence of Joyce Wood, pages 23-31, Morning Session, Friday 4 December 2009; Production 928, Turn-Out Slip;

²⁵⁷³ Victoria Neill, 4 December 2009, am, pp26, 97;

²⁵⁷⁴ Victoria Neill, 4 December 2009, am, p97; Production 270, Incident Resource History;

²⁵⁷⁵ David Buick, 4 December 2009, pm, pp77-78;

²⁵⁷⁶ David Buick, 4 December 2009, pm, pp79;

²⁵⁷⁷ Steven Campbell, 7 January 2010, pm, p65; David Buick, 4 December 2009, pm, p87; Paul Caldwell, 7 December 2009, pm, p107; Colin Mackie, 10 December 2009, pm, p38; James Clark, 8 December 2009, pm, p62; 9 December 2009, pm, pp9-10;

²⁵⁷⁸ James Clark, 9 December 2009, pm, p10;

²⁵⁷⁹ Production 270, Incident Resource History; pages 106-109, Morning Session, Friday 4 December 2009; Production 928, Turn-Out slip (for first Hamilton appliance E011);

148. A two appliance mobilization was normal for an incident of the type described in the turn-out slip²⁵⁸⁰.

149. E031 was mobile to the incident at 0440.33 hours. There was a degree of delay in the mobilization of E012 which was mobile to the incident at 0442.03 hours²⁵⁸¹. This delay triggered a transmission from the control room operator²⁵⁸². That delay may be ascribed to dressing and donning BA equipment²⁵⁸³.

150. Station Officer Steven Campbell was the officer in charge of Bellshill Fire Station on the night of the fire and assumed command responsibility for the incident. He obtained the turn-out slip from the “fire cat” in Bellshill Fire Station. The time of 0438.27 hours on the slip is the time when it would have printed out in the station²⁵⁸⁴.

151. The turn-out slip imparted important information. In particular, it gave an address for Rosepark Care Home of New Edinburgh Road. It also supplied additional information which Fire Brigade Command and Control considered that the crew of the attending appliances would need to know²⁵⁸⁵. The additional information included an injunction to “enter via Rosepark Gardens.” It is probable that Station Officer Campbell did not notice this particular information on the turn-out slip²⁵⁸⁶. It was some three inches below the address of the property. None of the other members of the crew recall, or speak to, any mention of Rosepark Gardens on the journey to Rosepark²⁵⁸⁷. Station Officer Campbell told the crew they were going to “Rosepark

²⁵⁸⁰ Evidence of Sir Graham Meldrum; page 116 *et seq.*, Morning Session, Tuesday 3 August 2010; Production 2080;

²⁵⁸¹ Production 270, Incident Resource History;

²⁵⁸² Production 206, Full Incident Log, page 6, ninth entry timed at 0440 hours;

²⁵⁸³ Sir Graham Meldrum, 3 August 2010, am, pp115-118

²⁵⁸⁴ Pages 47-48, Afternoon Session, Thursday 7 January 2010; Production 928, Turn-Out slip

²⁵⁸⁵ Pages 53-54 Afternoon Session, Thursday 7 January 2010

²⁵⁸⁶ Page 54-64, Afternoon Session, Thursday 7 January 2010, and the police statement given by Station Officer Campbell on 16th March 2004;

²⁵⁸⁷ David Buick. Pages 91-92, Afternoon Session, Friday 4 December 2009; Paul Caldwell. Page 83, Afternoon Session, Monday 7 December 2009; James Clark. Page 62, Afternoon Session, Tuesday 8 December 2009; Colin Mackie. Pages 26-28,

Nursing Home, New Edinburgh Road”. The crew were familiar with this address from driving passed it (Fire Fighter Buick 4 December 2009 am 87). Station Officer Campbell was aware, from his own personal knowledge, of the whereabouts of Rosepark home in New Edinburgh Road. It is significant that Sir Graham Meldrum, in his recommendations in Appendix 3 to his report (production 1408) recommends “The information printout received at the fire station relating to the fire call should be reviewed in order to display the additional information in a more prominent manner”. The address on the turnout slip was given as New Edinburgh Road. The additional information “enter by Rosepark Gardens” was three inches below the address of the property on the turnout slip.

152. If Station Officer Campbell had looked at the turnout slip, he would have seen the address of Rosepark Care Home as “New Edinburgh Road”. This conformed with his own knowledge of the situation of the care home. The VMDS system, which he had been trying to access during the journey, was not working. It is likely that Station Officer Campbell spent all or almost all of the journey of 109 seconds trying to access the VMDS system. The reason the appliance did in fact move from the New Edinburgh Road entrance to the Rosepark Avenue entrance was because Fire Fighter Buick, on returning to the appliance from his initial visit to Rosepark with Station Officer Campbell, stated to the crew that Rosepark Avenue was a “better entrance”.

153. The information on the turn-out slip was not acted upon, by Leading Fire Fighter Archibald MacDiarmid, the officer in charge of E012. He stated he did not read the relevant part of the turn-out slip until his appliance was on New Edinburgh Road. The lights of E031 were visible on that street so that was where they went²⁵⁸⁸.

154. In the result E031 first attended at the New Edinburgh Road entrance to Rosepark Care Home. Its attendance time was recorded as being 0442.12 hours²⁵⁸⁹.

Afternoon Session, Thursday 10 September 2009; and see also submissions at chapter 38(5), paragraph 15;

²⁵⁸⁸ Pages 91-95, Afternoon Session, Wednesday 9 December 2009;

²⁵⁸⁹ Evidence of Victoria Neill, Pages 106-109, Morning Session, Friday 4 December 2009; Production 270, Incident Resource History;

The VMDS system onboard E031 was not functioning²⁵⁹⁰. Mr Campbell did not consult the section 1(1)(d) information onboard the appliance²⁵⁹¹. It is unlikely that he would have had time to do so during the short journey of 109 seconds and his unsuccessful efforts to access the VMDS system. In any event, the information about access on the section 1(1)(d) information did not point conclusively to Rosepark Avenue as the appropriate means of access²⁵⁹². Station Officer Campbell went to the New Edinburgh Road entrance because of his own knowledge of the home.

155. On arrival Station Officer Campbell and Firefighter David Buick disembarked. There were two sets of gates in the driveway both of which were locked²⁵⁹³. Station Officer Campbell and Fire Fighter Buick climbed over both sets of gates and headed up the driveway visible in photograph 887A. As they did so Sub-Officer James Clark and Fire Fighter Colin Mackie used bolt cutters to unlock the bottom set of gates²⁵⁹⁴ and the driver of E031, Fire Fighter Paul Caldwell, drove the appliance into the driveway. On looking up the driveway Mr Caldwell noted “at the very top of the drive there was a slight overhang of the building. the way the roof is constructed there is an overhang, and the problem with fire engine is, you’ve got ladders higher than the fire engine. Plus, there was a solid gate at the top with no vision through it and to go up and through that you don’t know if you’ve got turning space. So I was waiting for my colleague, one of my colleagues went up and he came back to give me a heads up whether there was, he thought room to turn at the top”²⁵⁹⁵.

156. From the drive Firefighter Buick was able to observe smoke coming from the along the eaves of the building to the right hand side of photograph 887E (in the area of the gable above the broken window in that photograph)²⁵⁹⁶. Colin Mackie saw smoke issuing from the eaves in the vicinity of the third window from the left hand side on the New Edinburgh Road end of the building, or possibly further to the right

²⁵⁹⁰ Steven Campbell, 7 January 2010, pm, pp88-89;

²⁵⁹¹ Steven Campbell, 7 January 2010, pm, pp83-87;

²⁵⁹² Steven Campbell, 7 January 2010, pm, p84;

²⁵⁹³ Page 98-106, Afternoon Session, Friday 4 December 2010; Page 6, Morning Session, Friday 8 January 2010;

²⁵⁹⁴ Page 76, Afternoon Session, Tuesday 8 December 2009;

²⁵⁹⁵ Page 116, Afternoon Session, Monday 7 December 2009;

²⁵⁹⁶ Pages 101-106, Afternoon Session, Friday 4 December 2009;

at that end²⁵⁹⁷. Station Officer Campbell spoke only to observing smoke from the drive just prior to reaching the second set of gates. On his left Station Officer Campbell observed a window and saw what he perceived to be a laundry or utility room. He saw light coloured wispy smoke at ceiling level²⁵⁹⁸. He did not look in the direction of the eaves²⁵⁹⁹.

157. Firefighter Buick was the first fire officer to enter Rosepark Care Home and he entered alone²⁶⁰⁰. Isobel Queen's position was that she could not remember anything about the conversations she had with the first attending fire officers²⁶⁰¹.

158. Mr Buick entered the home and saw a nurse facing him about 15 – 20 feet along the corridor²⁶⁰². Photograph 870 H1 shows the area where Mr Buick met the nurse, who had short brown hair and was wearing glasses. She was the only member of the nursing staff in the foyer at that time. She pointed over to her right and said "she is on the phone". She was indicating to the nurse in charge. Mr Buick saw another nurse on the phone. She was in the office shown in photograph 870 H1²⁶⁰³. It is clear (not least from the reference to the nurse in the foyer wearing glasses) that Mr Buick was directed by Irene Richmond to Isobel Queen.

159. Mr Buick spoke to the nurse in the office after she finished her telephone call. He formed the impression that she was in charge. She did not immediately break off her telephone discussion to speak to Mr Buick. The nurse approached Mr Buick and apologised for getting them (the fire brigade) out, and indicated that the smoke was down to her left (in the opposite direction to the main office). She said that the smoke was in the lift²⁶⁰⁴. Mr Buick did not recall her referring to fire, just to smoke. The nurse who had been on the telephone (Miss Queen) had seemed calm and not overly

²⁵⁹⁷ Colin Mackie, 10 December 2009, pm, pp31-32;

²⁵⁹⁸ Pages 9-11, Morning Session, Friday 8 January 2010;

²⁵⁹⁹ Pages 13-14, Morning Session, Friday 8 January 2010;

²⁶⁰⁰ Page 108, Afternoon Session, Friday 4 December 2009;

²⁶⁰¹ Page 36, Afternoon Session, Wednesday 2nd December 2009;

²⁶⁰² Page 108, Afternoon Session, Friday 4 December 2009

²⁶⁰³ Page 110, Afternoon Session, Friday 4 December 2009

²⁶⁰⁴ Lines 1 – 7, Page 4, Morning Session, Monday 7 December 2009

concerned²⁶⁰⁵. Mr Buick was referred to production 1744. He thought that the nurse had been in the first office, but he was not certain²⁶⁰⁶.

160. Mrs Richmond thought that she would have told the fire officers, when they first arrived, that the smoke was coming from the area of the lift²⁶⁰⁷.

161. Mr Buick was referred to photograph 290 (b)²⁶⁰⁸. He confirmed that this was a shot of a corridor within Rosepark, looking towards the foyer area. He was taken by Miss Queen along this corridor (corridor 1) to the door just before the lift. Photograph 290 (a) is the same corridor, taken from the opposite direction. Mr Buick confirmed that there was a fire door at the end of this corridor which was closed²⁶⁰⁹. It is open in photograph 290 (a). Before opening the closed fire door, Mr Buick had not detected any evidence of fire. There was no smell or sign of smoke²⁶¹⁰. This was indicative that there was effective compartmentation between corridors 1 and 2.

162. Under reference to photograph 332B, Mr Buick confirmed that the lift was to the right hand side of this photograph in corridor 2. This part of the corridor was heavily smoked logged²⁶¹¹. There was a significant change in conditions when he opened the door to corridor 2²⁶¹². Visibility was between 1.5 – 2 feet at face height, down to at least waist height²⁶¹³. He could not tell where the smoke was coming from. He could not see the door on the other side of corridor 2 when he opened the fire door on the opposite side. He did not see any flames at this point²⁶¹⁴.

²⁶⁰⁵ Page 22, Morning Session, Monday 7 December 2009; see also evidence of Station Officer Campbell, Page 22, Morning Session, Friday 8 January 2010;

²⁶⁰⁶ David Buick, 7 December 2009, am, p5;

²⁶⁰⁷ Irene Richmond, 1 December 2009, am, p131;

²⁶⁰⁸ See Page 7, Morning Session, Monday 7 December 2009

²⁶⁰⁹ David Buick, 7 December 2009, am, p8;

²⁶¹⁰ David Buick, 7 December 2009, am, p9;

²⁶¹¹ Lines 17 – 18, Page 12, Morning Session, Monday 7 December 2009

²⁶¹² Lines 19 – 23, Page 12, Morning Session, Monday 7 December 2009

²⁶¹³ Lines 8 – 12, Page 13, Morning Session, Monday 7 December 2009

²⁶¹⁴ David Buick, 7 December 2009, am, pp14, 19

163. Miss Queen was present with him when he opened the door to the lift area. He asked her if there was anyone within this area, and she answered that the residents were in their rooms, and that there were two members of staff at the other end of the corridor²⁶¹⁵.

164. At that time Mr Buick did not know where the rooms she was describing were. He did not know the layout of the building. He thought there would be more fire doors along the corridor. If the fire was in the lift area, he would have expected the corridor beyond the lift to be relatively free of smoke. Lift fires are relatively common. They can be caused by the lift mechanism, rubbish in the lift, or the light fittings in the lift. No indication was given by the nurse as to where those rooms were. Mr Buick was referred to a statement which he gave to the police on 3 February 2004. He remembered giving a statement to the police at that time. He had told the truth and given them information to the best of his recollection at the time. He was referred to page 6 of his statement. He was recorded as having said that the nurse had pointed to the right and said that was where the lift was, and that he could see the lift. At the time of his evidence Mr Buick did not remember having seen the lift. He agreed that this recollection would have been better at the time of giving the statement²⁶¹⁶.

165. He had told police that he could not see any fire or fire damage, just smoke. The nurse had told him that the residents were in their rooms, and had indicated beyond the next set of doors. Mr Buick agreed that this would be what he had told police and that this would have been true.

166. Mr Buick was concerned for residents in their rooms and the staff members who were said to be at the other end of the corridor. He made his way back to the main entrance of Rosepark where he met Station Officer Campbell outside the front

²⁶¹⁵ David Buick, 7 December 2009, pm, pp14-16;

²⁶¹⁶ Pages 17 – 18, Morning Session, Monday 7 December 2009

door²⁶¹⁷. Mr Buick told Station Officer Campbell what he had found, that the nurse had told him that the residents were still in their rooms, and that the nurse had thought the smoke was coming from the lift. He took Station Officer Campbell to show him what he had seen²⁶¹⁸. Mr Campbell can be observed on the CCTV footage entering the foyer at 0549.55 (0445.36) hours along with Mr Buick²⁶¹⁹.

167. Ms Queen and Mrs Richmond were in the reception area when Mr Campbell entered. There were residents in the Rose Lounge²⁶²⁰. Mr Campbell was given no indication as to who was in charge so he spoke to both staff members. He did not ask if anyone was in charge²⁶²¹.

168. On entering the foyer Mr Campbell asked the two members of staff if everyone was accounted for. He was told that “the residents on the lower floor were unaccounted for and that two members of staff had gone down to evacuate them and there was no communication from them and that they did not know what their status was; on the upper floor residents were still in their rooms and had not been evacuated”²⁶²². He asked them if they knew where the seat of the fire was and was told to the best of their knowledge it was in the lift shaft. Mr Campbell was shown the position of the fire alarm control panel²⁶²³. He was told by the staff that the panel had indicated a particular zone. At the time of giving his evidence Mr Campbell could not recall that zone number which he was given. It could have been zone 3²⁶²⁴.

169. As regards information given by staff about the location of the fire Mr Campbell’s position was that he was given definite information as to the location of

²⁶¹⁷ Label 1506, CCTV footage, 0549.29 (0444.10) hours; David Buick, 7 December 2009, am, pp47-49;

²⁶¹⁸ Pages 22 – 23, Morning Session, Monday 7 December 2009

²⁶¹⁹ Page 65, Afternoon Session, Friday 8 January 2010; see also Irene Richmond. 1 December 2009, pm, p29; Isobel Queen, 2 December 2009, am, p66;

²⁶²⁰ Page 19, Morning Session, Friday 8 January 2010;

²⁶²¹ Pages 21-22 and 112, Morning Session, Friday 8 January 2010;

²⁶²² Pages 33-35, Morning Session, Friday 8 January 2010;

²⁶²³ Page 24, Morning Session, Friday 8 January 2010; Label 1506, CCTV footage, at 0550.18 (0445.59) hours; Pages 61-66, Afternoon Session, Friday 8 January 2010;

²⁶²⁴ Page 25, Morning Session, Friday 8 January 2010;

the fire at the point when he was first shown to the alarm panel. He said that he had no reason to doubt that what the staff were telling him was accurate²⁶²⁵. He is recorded as having told the police that he was informed that the fire was in the lift shaft²⁶²⁶. He was told of a zone number which had caused the staff to go to the lower ground floor where they had witnessed smoke coming from the lift area at that level²⁶²⁷. Mr Campbell could not, however, recall if the staff had said that they had personally seen smoke at that level. They told him that smoke had been reported there²⁶²⁸. That information was confirmed by Station Officer Campbell himself finding smoke in the lift area. There was no smoke in corridor 1 i.e. on the reception area side of corridor 2 which indicated that compartmentation was effective between corridor 1 and corridor 2.

170. Station Officer Campbell was told that zone 3 had shown up on the control panel. I am satisfied that this is the case because (a) it was the only number identified as a possibility by Mr Campbell; (b) in her police statements of 31 January 2004 and 1 February 2004 (the accuracy of which she accepted) Ms Queen made mention of the light for zone 3 flashing²⁶²⁹; (c) Miss Carlyle reported Ms Queen as having said, when she arrived initially at the fire panel, "it's coming up zone 3"²⁶³⁰; (d) by reference to her police statement of 31 January 2004, Mrs Richmond accepted that she had said that zone 3 was indicated on the panel²⁶³¹ and (e) the detector in cupboard A2 was in fact wired to zone 3²⁶³² so that illumination of the zone 3 light correctly identified the location of the fire, and would be consistent with mention of zone 3, to Mr Campbell. If he had examined the zone card (production 180) at the time when mention was made of zone 3 Mr Campbell would have noted that the panel was indicating an area on the "ground floor". This could reasonably be said to have been the lower of the two floors. At that point he had a good understanding of the layout of the ground

²⁶²⁵ Steven Campbell, 8 January 2010, am, p24;

²⁶²⁶ Steven Campbell, Statement, 3rd February 2004; pages 33-35, Morning Session, Friday 8 January 2010;

²⁶²⁷ Pages 25-26, Morning Session, Friday 8 January 2010;

²⁶²⁸ Page 27, Morning Session, Friday 8 January 2010;

²⁶²⁹ Pages 122 and 125, respectively, Morning Session, Wednesday 2 December 2009;

²⁶³⁰ Page 119, Morning Session, Friday 27 November 2009;

²⁶³¹ Page 81, Morning Session, Tuesday 1 December 2009;

²⁶³² Pages 53-54, Afternoon Session, Tuesday 22 December 2009;

floor²⁶³³. However, in the stress of the “battle” situation it is entirely feasible that, had he examined the fire panel, Station Officer Campbell would have considered that “ground floor” which is ascribed to zone 3 and which is in the lower part of the zone card in effect related to the “lower” floor and not the “upper”. That was the impression which Isobel Queen obtained when she examined the zone chart. The evidence of Michael Gray (supra paragraph 110 and 111) indicated that this zone chart was confusing in the reference to the “ground floor” particularly in view of the fact that the zones dealing with the “lower ground floor” were situated above the zones relating to the “ground floor” on the zone card. It is relatively straightforward at leisure to read the zone chart as a whole and to note the existence of a “ground floor” and “lower ground floor”. However being directed to a “ground floor” in “battle” conditions when the entries at the bottom of the zone chart showed “ground floor” could easily lead to a misinterpretation. Isobel Queen clearly read “ground” to be the lower floor and it can be readily understood why she did. It accordingly cannot be concluded that, had he read the zone card, Station Officer Campbell would necessarily have been directed to the upper floor.

171. Mr Campbell and Mr Buick proceeded to corridor 2 (the lift shaft area)²⁶³⁴. Once there, Mr Campbell also found that there was heavy smoke logging in corridor 2 down to about one metre above ground level²⁶³⁵. By the time he observed smoke in the area of the lift Mr Campbell knew that there were bedrooms beyond corridor 2²⁶³⁶. Station Officer Campbell knew that there was smoke logging in a protected area (lift shaft area – corridor 2). He knew that on either side of this protected area were fire doors which are designed to have a minimum fire resistance possibly in this instance of 60 minutes. He stated that the reception area side of that area (corridor 1) was virtually smoke free. It was his understanding that there would be a similar situation on the opposite side of corridor 2 i.e. in corridor 3. His position was “I had no reason to believe that there was not a fire somewhere in the lift enclosure area and that that

²⁶³³ Pages 2-4, Afternoon Session, Friday 8 January 2010

²⁶³⁴ Label 1506, CCTV footage, 0550.45 (0446.26) hours;

²⁶³⁵ Pages 40-43, Morning Session, Friday 8 January 2010;

²⁶³⁶ Pages 50-51, Morning Session, Friday 8 January 2010

fire and the smoke and products of combustion were contained within that area²⁶³⁷. Station Officer Campbell and Mr Buick then returned to the foyer.

172. Mr Buick said to Station Officer Campbell that the incident should be made “persons reported”, and that he would put his breathing apparatus on²⁶³⁸, although he had not been designated a BA wearer at the start of the shift. Mr Buick thought that he had been the first to mention persons reported, but that Station Officer Campbell agreed immediately. “Persons reported” means that there are people in the building who are unaccounted for. Mr Buick then returned to the appliance. Station Officer Campbell remained at the main entrance. Mr Buick thought that Station Officer Campbell was on the radio to the other appliance whilst he walked down the driveway. It is possible that an instruction to pass a “persons reported” message was made by Mr Campbell at around the time when the CCTV footage was paused at 0552.37 (0448.18) hours; if it was, that instruction was given after Mr Buick and Mr Campbell had visited corridor 2²⁶³⁹.

Persons Reported

173. Mr Campbell’s belief that there was a fire situation at the lower level at the lift shaft area was in fact erroneous. If Station Officer Campbell had checked the whereabouts of zone 3 against the zone card, and if he had correctly interpreted “ground” to be the “upper” floor, unlike interpretation given to it by Isobel Queen, he would have realised this to be the case. Had he called for additional appliances at this time they would, obviously, have been at the scene sooner than the additional appliances which responded to later resource messages²⁶⁴⁰. However, Station Officer Campbell made a judgement call not to check the information given to him that the fire was in the lift shaft area at the lower level. It was confirmed by his own observation of the smoke in the lift shaft area, his belief that the compartmentation between corridors 2 and 3 was secure (as it appeared to be between corridors 1 and 2)

²⁶³⁷ Steven Campbell, 8 January 2010, am, p54;

²⁶³⁸ Lines 15 – 19, Page 24, Morning Session, Monday 7 December 2009;

²⁶³⁹ Pages 68-71, Morning Session, Friday 8 January 2010;

²⁶⁴⁰ Page 107, Morning Session, Friday 8 January 2010;

and by his having observed wisps of smoke in the laundry area on the lower floor as he approached Rosepark. This was adjacent to the lift shaft. It is to be noted that, the experience of this fire having been digested by SF&R, it is provision in Operational Technical Handbook A124 that in all instances where a fire is suspected or when responding to an alarm actuation the alarm panel must be consulted to establish the zones involved within the building²⁶⁴¹. That guidance was not in existence at the time of the fire.

174. The “persons reported” message was actually logged at 0450 hours²⁶⁴². The message was communicated to the Control Room by the Hamilton appliance, E012, after Mr Buick had returned to the New Edinburgh Road entrance and informed Sub-Officer James Clark that it was a persons reported incident²⁶⁴³. By that time Mr Campbell was aware of the following matters.

- There had been a report of smoke in the building.
- Staff members had gone downstairs and detected smoke coming from the lift area.
- Two staff members had headed to the lower level in order to carry out an evacuation, be it full or phased.
- Nothing had since been heard from these staff members at that point. There were no radios or other means of communicating with them.
- The residents on the upper floor beyond the lift had not been evacuated. At that time Station Officer Campbell did not know that the bedroom doors were not closed (as they ought to have been) and that the compartmentation in the building was ineffective. The absence of dampers between corridors 3 and 4 and the presence of vents in the ceilings of corridors 2 and 3 allowed smoke to penetrate these areas from corridor 4. Effective compartmentation and the

²⁶⁴¹ Brian Sweeney, 13 July 2010, am, pp45-46;

²⁶⁴² Production 206, Full Incident Log; Page 128 *et seq.*, Morning Session, Friday 4 December 2009 (Victoria Neill); Pages 115-116, Morning Session, Friday 8 January 2010 (S/O Campbell);

²⁶⁴³ Page 33, Morning Session, Monday 7 December 2009; Pages 78-80, Afternoon Session, Tuesday 8 December 2009;

presence of dampers would have prevented the passage of smoke from corridor 4, particularly into the lift shaft area.

- Because of smoke in the lift shaft area staff could not therefore get to the fire door leading to corridor 3.
- An effort had been made to enter the upper floor beyond the lift but staff had been unable to do so because of the smoke.
- Mr Campbell knew how many residents resided on the lower level although he could not remember the number at the time of giving his evidence.
- Mr Campbell was aware that there were residents beyond an area of the building that was smoke logged²⁶⁴⁴. He had been informed they were in their rooms. He assumed that the doors were closed.

175. Mr Campbell's evidence was that the staff and residents on the lower ground floor were his priority at that time. It was because of their status that he instructed a "persons reported" message. The effect of transmitting a persons reported message was to mobilise the resources of the Scottish Ambulance Service. The first ambulance was allocated the call to Rosepark at 0450 hours. The first ambulance arrived at Rosepark at 0457 hours. The crew requested further assistance and two further ambulances arrived at 0503 and 0505 hours respectively²⁶⁴⁵

176. When Station Officer Campbell instructed the transmission of a persons reported message he did not, at the same time, seek additional resources in the form of further fire appliances and crews. It would, he said, have been a knee jerk reaction to have done so²⁶⁴⁶ and Mr Campbell did not agree that he should have done so²⁶⁴⁷.

²⁶⁴⁴ Pages 74 – 77, Morning Session, Friday 8 January 2010

²⁶⁴⁵ Ronald Downie, 15 December 2009, pm, pp14-17; 29-33; Production 509, p4;

²⁶⁴⁶ Pages 99-100, Morning Session, Friday 8 January 2010;

²⁶⁴⁷ Pages 100-105, Morning Session, Friday 8 January 2010;

177. Instead Mr Campbell proceeded to formulate an operational plan on the basis that the information he was given led him to believe that there was a fire situation at the lower level. He was satisfied that the smoke was contained in the lift enclosure. Corridor 1 was virtually smoke free and Mr Campbell said that he had no reason to think that conditions on the far side of the lift enclosure were any different²⁶⁴⁸.

178. Mr Campbell's evidence was to the effect that he rejected the proposition that he could not, at that time, be satisfied as to the safety of the residents beyond corridor 2²⁶⁴⁹. This was on the basis that compartmentation was effective and that bedroom doors beyond corridor 2 would be closed. He was satisfied that the two initial appliances, with four designated BA wearers and two additional BA sets, were sufficient²⁶⁵⁰.

179. At the time when he instructed the "persons reported" message to be transmitted Mr Campbell had not asked whether the bedroom doors on the ground floor beyond corridor 2 were shut at night²⁶⁵¹. It was not a question that he asked at the time and not one that he had ever asked before²⁶⁵². He had been told by that time that the residents on the upper level would require a greater level of assistance than the ones at the lower level²⁶⁵³. He was not, however at any time advised by any of the staff that bedroom doors in corridor 3 and 4 had been left open. Had the staff been properly trained, they would have known that this should have been the case and would have advised Station Officer Campbell of this potentially dangerous situation.

180. Even had he known that some bedroom doors were not shut at night, this would not have affected Mr Campbell's decision not to seek additional resources²⁶⁵⁴. His

²⁶⁴⁸ Pages 99-100, Morning Session, Friday 8 January 2010;

²⁶⁴⁹ Pages 100-101, Morning Session, Friday 8 January 2010;

²⁶⁵⁰ Pages 106-107, Morning Session, Friday 8 January 2010;

²⁶⁵¹ Pages 87-88, Morning Session, Friday 8 January 2010;

²⁶⁵² Pages 98-99, Morning Session, Friday 8 January 2010;

²⁶⁵³ Page 87, Morning Session, Friday 8 January 2010;

²⁶⁵⁴ Pages 109-110, Morning Session, Friday 8 January 2010;

evidence was "... I was reasonably expecting the smoke to be contained within that area (i.e. the lift area) and I did not foresee a major problem beyond these doors".

181. Had Station Officer Campbell known, at 0450 hours, that the corridor beyond the lift enclosure was heavily smoke logged and bedroom doors were open, he would have been aware that the residents in that area were in grave danger²⁶⁵⁵.

Re-positioning of appliances

182. Fire Fighter Buick told Fire Fighter Clark that they should move E31 to the Rosepark Avenue entrance(315). Fire Fighter Caldwell, the driver of EO31, stated that Fire Fighter Buick, having run down the side of the building and vaulted the gate at the top of the access road indicated "persons reported" – there is a better entrance at Rosepark Avenue. EO31, the Bellshill appliance had attended at New Edinburgh Road at 0442.12. The CCTV recorded Fire Fighter Buick entering Rosepark at 0444.26. It accordingly took him 2 minutes 14 seconds from the time he left the appliance until he entered the premises. Had EO31 gone immediately to Rosepark Avenue and not New Edinburgh Road that delay would have been avoided. Fire Fighter Buick was seen on CCTV leaving Rosepark after his initial investigation with Station Officer Campbell at 0447.26. The lights of EO31 arriving at the Rosepark entrance are seen on CCTV on 0449.37. It accordingly took 2 minutes 11 seconds Fire Fighter Buick from leaving Rosepark after the initial investigation and the arrival of EO31 at Rosepark Avenue. Accordingly a period of 4 minutes 25 seconds was lost as a result of EO31 deploying to New Edinburgh Road. EO12 deployed to New Edinburgh Road at 0447.06, seconds before Fire Fighter Buick returned to EO31 at New Edinburgh Road and directed return to Rosepark Avenue. EO12 had intended going to the Rosepark Avenue entrance, but went to New Edinburgh Road when EO31 was seen there. EO12 immediately followed EO31 to the Rosepark Avenue entrance. The delay in EO12 deploying was minimal. However, had EO31 deployed initially to Rosepark Avenue, EO12 would also have deployed there.

²⁶⁵⁵ Pages 136-137, Morning Session, Friday 8 January 2010;

183. On arrival, Mr Clark and Mr Mackie disembarked and entered the Home²⁶⁵⁶. Both identified themselves from the CCTV footage as entering the Home at 0554.24 (0450.05) hours. They were briefed by Mr Campbell, instructed to proceed to the lower ground floor, where there were fourteen residents and two members of staff unaccounted for, and conduct a search and rescue²⁶⁵⁷. The working hypothesis at the time was that there was a fire or smoke in the lift²⁶⁵⁸.

Search and Rescue Operations by BA Team 1 (Clark and Mackie)

184. On the CCTV footage, at 0555.04-10 (0450.51) hours, one or other of Mr Clark or Mr Mackie can be seen donning a face mask before both move off towards corridor 2 to commence the search²⁶⁵⁹. The timing of that sequence of footage is consistent with Mr Clark having commenced breathing through his BA set at 0451.09 hours²⁶⁶⁰.

185. BA team 1 found corridor 1 to be affected by smoke. Visibility was about 6-10 feet²⁶⁶¹. In corridor 2 visibility was reduced to about 6 inches because of smoke²⁶⁶². They did not go through the door to corridor 3. Mr Clark was aware that he and Mr Mackie were the first firefighters into the building and that nobody else had gone through the fire door between corridors 3 and 4²⁶⁶³.

186. BA team 1 descended the stairwell from corridor 2 and found that about 50-75% of the way down the smoke was significantly reduced²⁶⁶⁴. In the lower ground floor corridor the visibility was clear²⁶⁶⁵. BA team 1 turned right and headed through the

²⁶⁵⁶ Page 85, Afternoon Session, Tuesday 8 December 2009;

²⁶⁵⁷ Pages 87-88, Afternoon Session, Tuesday 8 December 2009;

²⁶⁵⁸ Steven Campbell, 8 December 2009, pm, pp94-95; 9 December 2009, am, pp3-4; pm, p18;;

²⁶⁵⁹ James Clark, 8 December 2009, pm, pp94-95;

²⁶⁶⁰ Production 564, Bodyguard Datalog Report for BA set 344; Joint Minute, paragraph 126; and see, generally, the evidence of James Clark, Pages 41-50, Morning Session, Wednesday 9 December 2009, for discussion of the timings in the Report for BA set 344;

²⁶⁶¹ Pages 3-4, Morning Session, Wednesday 9 December 2009;

²⁶⁶² Page 4, Morning Session, Wednesday 9 December 2009;

²⁶⁶³ Page 148, Morning Session, Wednesday 9 December 2009;

²⁶⁶⁴ Page 11, Morning Session, Wednesday 9 December 2009;

²⁶⁶⁵ Page 12, Morning Session, Wednesday 9 December 2009;

first fire door. They checked bedrooms 23, 24, 34, 35 and 36. They checked the WC and store. They found no-one²⁶⁶⁶. Mr Clark and Mr Mackie then proceeded through the fire door visible in photograph 886A. Visibility on the other side was as clear as day²⁶⁶⁷.

187. As soon as they came through the door Mr Clark observed a male member of staff, Mr Norton, and a resident in the vicinity of the door to room 25²⁶⁶⁸. They both took off their masks so as not to give anyone a fright (and there was, in any event, no reason to keep them on in the conditions which prevailed in the corridor)²⁶⁶⁹. The second member of staff and other residents, either in wheelchairs or standing, were found outside rooms 25, 26, and 27. Mr Clark asked Mr Norton to confirm that all the residents were gathered in the area of the dog leg. Mr Norton confirmed that they were all there. Mr Clark counted 14 people (possibly 16 according to his recollection); he therefore accounted for everybody²⁶⁷⁰.

188. Mr Clark sent a radio message to Mr Campbell informing him that he had located the sixteen people who had been unaccounted for, and that he was going to evacuate them. Mr Campbell acknowledged the message²⁶⁷¹.

189. BA team 1 then proceeded to the fire exit at the far end of the building (outside room 30). As soon as they opened the door at the end of the corridor Mr Clark and Mr Mackie found the stairwell to be smoke logged. The smoke was thick and black. They were surprised to find smoke in an area which was expected to be fully protected against smoke and fire²⁶⁷².

²⁶⁶⁶ Pages 16-17, Morning Session, Wednesday 9 December 2009;

²⁶⁶⁷ Page 20, Morning Session, Wednesday 9 December 2009;

²⁶⁶⁸ Cf. Production 1745, plan of the lower ground floor;

²⁶⁶⁹ Pages 20-21, Morning Session, Wednesday, 9 December 2009;

²⁶⁷⁰ Page 25, Morning Session, Wednesday 9 December 2009;

²⁶⁷¹ Pages 25-26, Morning Session, Wednesday 9 December 2009;

²⁶⁷² Pages 26-29, Morning Session, Wednesday 9 December 2009;

190. Mr Clark asked Mr Mackie to go back to the stairwell at the lift shaft to make sure there was no smoke there, so that they could evacuate the residents out of the fire exit at that stairwell. Mr Mackie did this. The residents and staff members were evacuated out through the fire exit at the lift shaft and out into the communal garden²⁶⁷³. Mr Campbell spoke to the staff and was told that there was a path round the (west) side of the building and through the garden to the main entrance²⁶⁷⁴. The residents of the lower level were evacuated by this route once the lock to the top gate had been broken by Firefighter Colin Gray of E011²⁶⁷⁵

191. Once all of the residents had been evacuated BA team 1 returned to the far end of the corridor. Mr Clark radioed Mr Campbell to indicate that they would proceed upstairs to the ground floor, entering from the far end of corridor 4b, and undertake search and rescue. The message was acknowledged and Mr Campbell instructed them to carry on²⁶⁷⁶. BA team 1 resumed breathing apparatus and entered the stairwell beyond the fire door at the end of the lower ground floor corridor²⁶⁷⁷.

192. It is possible to place a time on the sequence of events just described by reference to the Datalog Report for BA set 344 worn by Mr Clark. The report shows that at 0453.09 hours the breath rate reduces to “0” having commenced at 0451.09 hours. Mr Clark agreed that this would be consistent with the length of time in which he was initially using air from a BA set before he took off his mask in the lower ground floor. The breath rate continues to be recorded at “0” until 0504.57 hours²⁶⁷⁸. At that point the breath rate column contains readings consistent with the resumption of breathing through BA set 344. The period between 0453.09 and 0504.57,

²⁶⁷³ Pages 70-73, Morning Session, Wednesday 9 December 2009

²⁶⁷⁴ Steven Campbell, 8 January 2010, pm, p7;

²⁶⁷⁵ Colin Gray, 11 December 2009, am, pp163-164;

²⁶⁷⁶ Pages 38-40, Morning Session, Wednesday 9 December 2009;

²⁶⁷⁷ Pages 40-41, Morning Session, Wednesday 9 December 2009;

²⁶⁷⁸ This also provides a cross check for the approximate time of arrival of E011, whose driver assisted in opening the top gate and therefore must have arrived at or shortly after the time when Mr Clark and Mr Mackie resumed their search and rescue;

approximately 12 minutes, was consistent with Mr Clark's recollection of how long it took to evacuate the residents of the lower ground floor²⁶⁷⁹.

193. Accordingly, it is reasonable to time the entry of Mr Clark and Mr Mackie into the stairwell at the far end of the lower ground floor corridor at about 0505 hours.

194. BA team 1 made its way up the stairs. It took the team a matter of seconds. They reached the landing in the area marked store on production 1744. Visibility was virtually nil as a result of the thick black smoke²⁶⁸⁰. At the top of the stairs Mr Clark briefed Mr Mackie. This took about 30 seconds. He instructed Mr Mackie that they would do a right hand search until it became untenable without the protection of a hose reel²⁶⁸¹. Although this ran contrary to training (which would normally require that firefighters enter such an environment only with the protection of a hose reel) Mr Clark wanted to get into the corridor to render assistance as soon as possible²⁶⁸².

195. BA team 1 entered corridor 4b. Visibility was very poor. There was thick black smoke. Small pockets of fire were visible at floor level²⁶⁸³.

Room 13

196. Adopting a right hand search pattern Mr Clark and Mr Mackie entered room 13. Visibility in the room was the same as it had been in the corridor. They could not see the beds and bumped into them while carrying out their search procedure²⁶⁸⁴. In the first bed they found a casualty who was unresponsive. Soot was visible around her nose and mouth. Mr Clark removed his glove and felt for a pulse but found none. Mr Mackie found a casualty in the second bed. She was also found to be unresponsive with no pulse. Mr Clark concluded that both residents in the room were deceased and told Mr Mackie that they should continue their search in the hope of finding residents

²⁶⁷⁹ Pages 41-50, Morning Session, Wednesday 9 December 2009;

²⁶⁸⁰ Page 55, Morning Session, Wednesday 9 December 2009;

²⁶⁸¹ Pages 57-58, Morning Session, Wednesday 9 December 2009;

²⁶⁸² Pages 58-59, Morning Session, Wednesday 9 December 2009;

²⁶⁸³ Page 64, Morning Session, Wednesday 9 December 2009;

²⁶⁸⁴ Page 70, Morning Session, Wednesday 9 December 2009;

who were alive²⁶⁸⁵. Both of the residents in room 13 were found in their beds. Mr Clark radioed his findings to Mr Campbell²⁶⁸⁶. Mr Clark estimated that they had spent about three minutes in room 13²⁶⁸⁷. Mr Mackie considered that they had been in for more than one minute²⁶⁸⁸.

Room 12

197. Mr Clark and Mr Mackie felt their way along the wall to room 12. The visibility inside room 12 was the same as in room 13. Mr Clark came across a bed against the wall behind the door. They could feel that there was a resident in bed. They shone a torch on the resident and observed a female, Margaret Lappin, with a sooty face, nose and mouth. They checked her together and found no pulse or signs of life. They decided to leave the lady where she was and search other rooms in the hope of finding survivors²⁶⁸⁹. Mr Mackie's view was that they were in room 12 for at least 20 seconds and at most 1.5 minutes²⁶⁹⁰

198. In room 12, which was two doors along from the fire door just mentioned, the scene examination of the room subsequent to the fire revealed that a wall clock had stopped at just before 0440 hours as a result of the plastic face melting and stopping the movement of the hands²⁶⁹¹. This is itself an adminicle of evidence that, at about that time, the fire had reached an advanced state of development at the far end of corridor 4b. It explains why, shortly after instructing Ms Queen to call the fire brigade (which she did at about 0437 hours) Mr Norton was able to hear crackling noises from the stairwell leading to corridor 4b²⁶⁹².

Room 11

199. Mr Clark and Mr Mackie then entered room 11. The door was closed and intact. On opening the door the room was smoky but the smoke was more grey than black.

²⁶⁸⁵ Pages 73-74, Morning Session, Wednesday 9 December 2009;

²⁶⁸⁶ Page 75, Morning Session, Wednesday 9 December 2009;

²⁶⁸⁷ Page 76, Morning Session, Wednesday 9 December 2009;

²⁶⁸⁸ Pages 66-67, Afternoon Session, Thursday 10 December 2009;

²⁶⁸⁹ Pages 79-83, Morning Session, Wednesday 9 December 2009; Pages 68-69, Afternoon Session, Thursday 10 December 2009;

²⁶⁹⁰ Page 68-69; 95, Afternoon Session, Thursday 10 December 2009;

²⁶⁹¹ David Robertson, 9 February 2010, am, pp102-103;

²⁶⁹² Brian Norton, 26 November 2009, am, pp143-144;

When they entered the room Mr Clark and Mr Mackie could see a bed with a lady, Isabella MacLeod, lying in it. Mr Clark approached the bed and gave the lady a shake. She groaned. Mr Clark found a weak pulse. He confirmed with Mr Mackie that they should evacuate her²⁶⁹³.

200. Once Mr Clark and Mr Mackie had the resident in the corridor they headed towards the dog leg. Having become aware of the layout on the lower ground floor it was decided that this was the route to take²⁶⁹⁴. As they moved up corridor 4b Mr Mackie's BA set became entangled in ducting hanging down from the ceiling²⁶⁹⁵. Mr Buick, who was engaged in a search from the opposite end of corridor 4, came to Mr Mackie's aid and removed the ducting to allow them to continue²⁶⁹⁶. Mr Clark and Mr Mackie then carried Isabella MacLeod to the Rose Lounge where they attracted the attention of a paramedic. The paramedic confirmed that the resident was still alive. Mr Clark having informed him that they had left three casualties in their rooms the paramedic said that they should evacuate them regardless in order that their condition could be checked²⁶⁹⁷.

201. Mr Mackie's (unchallenged) evidence was that he thought that 3 or 4 minutes had elapsed between them first entering corridor 4 and removing the resident from room 11²⁶⁹⁸. Allowing for the period of time – estimated by Mr Clark to be measurable in seconds – for the BA team to ascend the stairwell from the lower ground floor and to prepare to enter corridor 4b, it is reasonable to place the time of rescue of the occupant of room 11, Isabella McLeod, at, or very close to, 0509 hours, entry having been made to the stairwell at 0505 hours²⁶⁹⁹.

²⁶⁹³ Pages 83- 87, Morning Session, Wednesday 9 December 2009;

²⁶⁹⁴ Pages 89-90, Morning Session, Wednesday 9 December 2009;

²⁶⁹⁵ See photograph 887J; Page 88, Morning Session, Wednesday 9 December 2009;

²⁶⁹⁶ Page 144, Morning Session, Monday 7 December 2009; Pages 90-91, Morning Session, Wednesday 9 December 2009;

²⁶⁹⁷ Pages 92-93, Morning Session, Wednesday 9 December 2009;

²⁶⁹⁸ Pages 94-95, Afternoon Session, Thursday 10 December 2009;

²⁶⁹⁹ See note 91, *supra.*; cf. Production 2053, Revised report by Professor David Purser, Appendix B, page 63;

Return to Corridor 4

202. Mr Clark and Mr Mackie returned to room 12 and, with the assistance of a quilt, carried Mrs Lappin as far as room 61 (the day room). On the instructions of Leading Firefighter MacDiarmid she was placed in room 61²⁷⁰⁰.

203. Both firefighters returned to corridor 4a. There was still thick black smoke and they required to use BA although conditions were slightly better²⁷⁰¹. Mr Mackie was running short of air and his whistle was sounding. They recovered another female casualty from another room. She was found in bed. She had a sooty face and was unresponsive. Although Mr Clark was uncertain to which room they returned, one may conclude that they returned to room 17. This is because Mr Clark and Mr Mackie were involved in removing the resident along the corridor towards the dayroom. The occupant of room 17, Agnes Dennison, was one of only three residents in corridor 4 to be taken to room 61. The others were Margaret Lappin, whose recovery from room 12 by BA team 1 has just been described, and Thomas Cook, whose removal to room 61 is accounted for in the evidence of others.

204. In their evidence Mr Clark and Mr Mackie spoke to placing Mrs Dennison in the corridor short of room 61 (probably just inside corridor 3, outside room 20), meeting another BA team comprising Colin Gray and Gordon Hector heading into the ground floor corridor, and Mr Clark asking that team to take Mrs Dennison to room 61. By that time both Mr Clark and Mr Mackie were physically drained and Mr Mackie had hurt his back and his air pressure warning was sounding²⁷⁰². They concluded search and rescue work at this point. The breath readings in the Datalog report for set 344 come to an end at 0519.09 hours. Mr Clark considered that a period of 14 minutes (from 0505 to 0519 hours) was consistent with the amount of time he had spent

²⁷⁰⁰ Pages 94-100, Morning Session, Wednesday 9 December 2009

²⁷⁰¹ Pages 100-101, Morning Session, Wednesday 9 December 2009;

²⁷⁰² See generally James Clark's evidence, Pages 104-115; 126-127, Morning Session, Wednesday 9 December 2009; Colin Mackie's evidence; Pages 85-92, Afternoon Session, Thursday 10 December 2009; Colin Gray's evidence, Pages 174-180, Morning Session, Friday 11 December 2009; pages 1-3, Afternoon Session, Friday 11 December 2009; Gordon Hector's evidence, Pages 28-38, Morning Session, 14 December 2009;

effecting search and rescue in corridor 4²⁷⁰³. At that time Station Office Campbell knew the number of residents in the entire ground floor corridor²⁷⁰⁴.

Search and Rescue Operations by BA Team 2 (Buick, Ferguson and Buchan) – Corridor 3

205. Mr Campbell's evidence was that the team was briefed to proceed through the lift enclosure and into the corridor 3, ascertain what the position was and, if necessary, remove residents to a position away from the lift enclosure or just bring them out; the Rose Lounge would be the meeting point²⁷⁰⁵. Mr Campbell asserted that his original plan had been that the residents would be taken either to the next zone or to the end of the corridor and down the fire escape at the far end of corridor 4b. He asked the fire officers to investigate whether this was feasible. Although he would usually instruct a left or a right hand search, Mr Campbell believed that the residents would be in their rooms. Accordingly, he told the BA team to check all of the rooms on both sides of corridor 3. His instructions about what the team was to do in corridor 4 depended on what conditions were found there.²⁷⁰⁶

206. Mr Buick's understanding of their instructions was that they should start searching from corridor 3 and sweep the whole ground floor corridor (which is, in fact, what they proceeded to do)²⁷⁰⁷, which, by implication involved evacuating any residents they found. Once they got to corridor 3 the plan, decided amongst the three firefighters, was to deviate from the usual left or right hand search and instead carry out a zig zag search down the corridor²⁷⁰⁸.

207. Mr Ferguson's understanding of their instructions was that there were persons unaccounted for and that they were to go and search beyond the lift area and start

²⁷⁰³ Pages 125-126, Morning Session, Wednesday 9 December 2009;

²⁷⁰⁴ Page 32, Afternoon Session, Friday 8 January 2010;

²⁷⁰⁵ Pages 138-139, Morning Session, Friday 8 January 2010

²⁷⁰⁶ Pages 140-145, Morning Session, Friday 8 January 2010;

²⁷⁰⁷ Pages 76-80, Morning Session, Monday 7 December 2010;

²⁷⁰⁸ Pages 84-86, Morning Session, Monday 14 December 2009;

evacuating rooms and bring the residents to the lounge area. They were not given any definitive search pattern to follow²⁷⁰⁹.

208. Mr Mackie, under reference to his police statement dated 4th February 2004 (which he adopted as accurate) recorded that Mr Campbell had instructed the team to conduct a room to room search beyond the lift area²⁷¹⁰.

209. Whatever the precise scope of Mr Campbell's instructions, what in fact occurred was that BA team 2 entered corridor 3 and conducted a search of the bedrooms on both sides of the corridor.

210. *CCTV footage of the foyer places the deployment of BA team 2 at 0557.47 (0453.28) hours*²⁷¹¹. On entry into corridor 3 visibility was reduced to about one foot because of heavy smoke logging. There was also a rise in temperature²⁷¹².

211. The first room visited by Mr Buick was room 4²⁷¹³. He thought that Buchan and Ferguson went into room 20 opposite and evacuated the resident there while he shut the door and waited in room 4 for assistance. He did not want to take the resident, Mary Dick into the corridor on his own because of the smoke²⁷¹⁴.

212. It is not possible to specify with precision the order in which the residents were evacuated because of differing recollections as between Mr Buick and Mr Ferguson about who searched which side of corridor 3. However, the probable course of events can be established by reference to their evidence and the CCTV footage showing casualties being taken to the Rose Lounge.

²⁷⁰⁹ Pages 154-155, Morning Session, Tuesday 8 December 2009;

²⁷¹⁰ Pages 93-95, Morning Session, Monday 14 December 2009;

²⁷¹¹ Evidence of David Buick, pages 75 and 80-81, Morning Session, Monday 7 December 2009; Evidence of David Ferguson,

²⁷¹² David Buick, 7 December 2009, am, pp82-83;

²⁷¹³ Page 86, Morning Session, Monday 7 December 2009;

²⁷¹⁴ Pages 88-89, Morning Session, Monday 7 December 2009;

213. The CCTV footage²⁷¹⁵ records casualties from corridor 3 being taken across the foyer in the direction of the Rose Lounge at the following times.

1. *First Casualty – 0559.37 (0455.18) hours*
2. *Second Casualty – 0601.34 (0457.15) hours*
3. *Third Casualty – 0604.42 (0500.23) hours*
4. *Fourth Casualty – 0605.01 (0500.42) hours*
5. *Fifth Casualty – 0608.46 (0504.27) hours*
6. *Sixth Casualty – 0610.45 (0506.26) hours*

These timings indicate that the evacuation of corridor 3 was effected in about 11 minutes.

214. Mr Buick stated that the residents in rooms 18 and 6 would have been evacuated towards the end of the evacuation of corridor 3. This was consistent with the search pattern in which they started at rooms 20 and 4 and zig-zagged down to rooms 6 and 18²⁷¹⁶. Equally, Mr Ferguson thought that rooms 4 and 20 were the first rooms to be searched while room 18 and the bathroom would have been the last to be searched²⁷¹⁷.

215. Mary Dick was the only resident in corridor 3 capable of walking²⁷¹⁸. It is apparent, therefore, that she was the second casualty caught on the CCTV footage. Accordingly, on the search approach described by the witnesses, it is probable that Isabella McLachlan was the first casualty to be evacuated to the Rose Lounge (and to be caught on the CCTV footage).

²⁷¹⁵ Crown label 1506, spoken to by Mr Buick, Pages 113-130, Morning Session, Monday 7 December 2009; and by Mr Ferguson, Pages 11-17, Afternoon Session, Tuesday 8 December 2009;

²⁷¹⁶ Pages 106-7, Morning Session, Monday 7 December 2009;

²⁷¹⁷ Pages 159-160, Morning Session, Tuesday 8 December 2009;

²⁷¹⁸ Pages 92-95, Morning Session, Monday 7 December 2009

216. David Ferguson also gave evidence that one of the residents in corridor 3 was taken by him to the foyer in a wheelchair²⁷¹⁹. He thought that the resident, a female, was from room 5. When Firefighter John Devine actually treated Jean Paterson in the Rose Lounge; she was then in a wheelchair²⁷²⁰. In the CCTV footage the third casualty to pass through the foyer appeared to be in a wheelchair²⁷²¹. This evidence strongly suggests that Jean Paterson was the third resident to be evacuated from corridor 3 to the Rose Lounge, (although the CCTV footage shows that the third and fourth residents reached the foyer within seconds of each other).

217. In relation to the order in which the occupants of rooms 6 and 18 were evacuated, the only evidence, apart from that which is advised by the pattern of search referred to above, was given by Mr Ferguson. He thought that Richard Russell was either the fourth or the fifth casualty to appear on the CCTV footage in the foyer²⁷²². The balance of the evidence, therefore, favours the view that Margaret Gow, from room 18, was indeed the last resident to be evacuated from corridor 3.

218. Accordingly, the order in which the residents were evacuated from corridor, and were seen on the CCTV footage, can reasonably be stated to be as follows.

1. *Isabella McLachlan (room 20)*
2. *Mary Dick (room 4)*
3. *Jean Paterson (room 5)*
4. *Jessie Hadcroft (room 19)*
5. *Richard Russell (room 6)*

²⁷¹⁹ Pages 163-166, Morning Session, Tuesday 8 December 2009;

²⁷²⁰ John Devine, 15 December 2009, am, p91;

²⁷²¹ Pages 119-120, Morning Session, Monday 7 December 2009; Pages 13-14, Afternoon Session, Tuesday 8 December 2009;

²⁷²² Pages 14-16, Morning Session, Tuesday 8 December 2009;

6. *Margaret Gow (room 18)*²⁷²³

Make Pumps Three

219. Meanwhile, at 0455 hours, there is recorded a message stating “Make Pumps Three, enter via Rosepark Avenue, Confirmed”²⁷²⁴.

220. Station Officer Campbell thought that he may have instructed the “Make Pumps” message once he had been told that there were casualties emerging from the ground floor corridor²⁷²⁵. He also recalled seeing people being taken to the Rose Lounge and that they appeared to be suffering the effects of smoke²⁷²⁶. Ultimately, his position appeared to be that, when he made Pumps 3, Mr Campbell had become aware that there was smoke in corridor 3²⁷²⁷.

221. Mr Campbell said that he decided to make pumps three because at that point he still thought that he was dealing with a fire in the lift. No crew had reported having found the seat of the fire²⁷²⁸. Mr Campbell simply thought that there had been a spread of smoke into corridor 3. An additional appliance would give him one or two additional BA teams and that would allow him to evacuate the area beyond the lift enclosure²⁷²⁹.

222. Mr Campbell rejected the proposition that calling for one additional appliance was wholly inadequate in the circumstances that existed at the time²⁷³⁰. Mr Campbell did not think that the smoke would have travelled beyond corridor 3 as far as the dogleg in corridor 4²⁷³¹. On further questioning he conceded that it was a possibility

²⁷²³ cf. Production 2053, Revised Report by Professor David Purser, Appendix B, page 62;

²⁷²⁴ Pages 5-6, Afternoon Session, Friday 8 January 2010; Production 206, page 7;

²⁷²⁵ Page 17, Afternoon Session, Friday 8 January 2010;

²⁷²⁶ Pages 19-20, Afternoon Session, Friday 8 January 2010;

²⁷²⁷ Pages 21-22, Afternoon Session, Friday 8 January 2010;

²⁷²⁸ Page 39, Afternoon Session, Friday 8 January 2010;

²⁷²⁹ Page 21, Afternoon Session, Friday 8 January 2010;

²⁷³⁰ Pages 39-40, Afternoon Session, Friday 8 January 2010;

²⁷³¹ Page 24, Afternoon Session, Friday 8 January 2010;

that smoke could have travelled into corridor 4²⁷³². The existence of smoke logging did not affect Mr Campbell's expectation that smoke would not have penetrated into corridor 4²⁷³³.

223. What Mr Campbell did know by the time he made Pumps 3 was the number of residents in the entire ground floor corridor²⁷³⁴. Until then, Mr Campbell had not been convinced of the need for appreciably greater resources.

Search and Rescue Operations by BA Team 2 (Buick, Ferguson and Buchan) – Corridor 4

224. Having evacuated the six residents from corridor 3 BA team 2 headed back along the corridor²⁷³⁵ and went through the fire door at the end of corridor 3, which was closed, to corridor 4²⁷³⁶. If there had been an additional BA team assisting BA team 2 in corridor 3, that corridor would have been evacuated more quickly and, consequently, the entry into corridor 4 would have been sooner²⁷³⁷.

225. On entering corridor 4 there was a rise in temperature and visibility was virtually non-existent because of thick black smoke²⁷³⁸. Photograph 887T shows the area of corridor 4 where BA team 2 entered. Initially the team stuck together, and kept in physical contact with each other because of the conditions²⁷³⁹²⁷⁴⁰. They commenced a left sided search and checked the two WCs, finding nothing of significance²⁷⁴¹. Nobody was conducting a right sided search at this point²⁷⁴².

²⁷³² Page 26, Afternoon Session, Friday 8 January 2010;

²⁷³³ Pages 41-42, Morning Session, Tuesday 12 January 2010;

²⁷³⁴ Page 32, Afternoon Session, Friday 8 January 2010;

²⁷³⁵ Pages 17-18, Afternoon Session, Tuesday 8 December 2009;

²⁷³⁶ Pages 132, 135, Morning Session, Monday 7 December 2009;

²⁷³⁷ Pages 8-9, Afternoon Session, Tuesday 8 December 2009;

²⁷³⁸ Page 133, Morning Session, Monday 7 December 2009; Page 19, Afternoon Session, Tuesday 8 December 2009;

²⁷³⁹ Page 137, Morning Session, Monday 7 December 2009;

²⁷⁴⁰ Page 136, Morning Session, Monday 7 December 2009;

²⁷⁴¹ Page 133, 137-138, Morning Session, Monday 7 December 2009; Pages 18-19, Afternoon Session, Tuesday 8 December 2009;

²⁷⁴² Page 19, Afternoon Session, Tuesday 8 December 2009;

Between them, they checked rooms 7 and 8, and the sluice room, and found them to be empty²⁷⁴³.

226. As BA team 2 progressed along corridor 4a the temperature continued to rise²⁷⁴⁴. Under reference to photographs 887X and Y, Mr Ferguson recalled seeing a small flame at floor level outside cupboard A2 which, in slightly improving visibility he thought may have been the door on the ground in 887Y burning²⁷⁴⁵. Between rooms 7 and 8, Mr Buick also saw a small flame (which he stood on), about 2 inches high, at ground level, directly across from the door to the sluice room²⁷⁴⁶. Under reference to photograph 887X, Mr Buick thought that the flame was immediately in front of the square shaped piece of debris behind the chair and just outside cupboard A2²⁷⁴⁷. Mr Buchan also saw a fire the size of a small football in the same area²⁷⁴⁸.

227. Whilst in room 8 Mr Buick heard BA team 1 shouting that they had someone²⁷⁴⁹. Mr Buick recalled that they shouted "Get her, get her out"²⁷⁵⁰. He split from Mr Ferguson and Mr Buchan and went to assist BA team 1 which was approaching from the opposite direction (ie. from the direction of the stairs at the far end of corridor 4)²⁷⁵¹. They were carrying a resident. Mr Mackie had some foil ducting wrapped around his BA set²⁷⁵². The ducting was hanging down outside rooms 10 and 11²⁷⁵³. Mr Buick unravelled this and helped BA team 1 as far as, roughly, room 17²⁷⁵⁴. Mr Clark and Mr Mackie then set off with Mrs Macleod along

²⁷⁴³ Page 140, Morning Session, Monday 7 December 2009; Pages 19-21, Afternoon Session, Tuesday 8 December 2009; Pages 118-119, Morning Session, Monday 14 December 2009;

²⁷⁴⁴ Page 140, Morning Session, Tuesday 7 December 2009; Page 20, Afternoon Session, Tuesday 8 December 2009;

²⁷⁴⁵ Pages 23-26, Afternoon Session, Tuesday 8 December 2009;

²⁷⁴⁶ Pages 140-141, Morning Session, Monday 7 December 2009;

²⁷⁴⁷ Pages 12-13, Afternoon Session, Monday 7 December 2009; Pages 12-14, Afternoon Session, Monday 7 December 2009;

²⁷⁴⁸ Pages 126-128, Morning Session, Monday 14 December 2009;

²⁷⁴⁹ Page 144-145, Morning Session, Monday 7 December 2009;

²⁷⁵⁰ Page 146, Morning Session, Monday 7 December 2009;

²⁷⁵¹ Page 145, 148, Morning Session, Monday 7 December 2009;

²⁷⁵² Production 887F1, Pages 149-150, Morning Session, Monday 7 December 2009;

²⁷⁵³ Production 887 J1, Pages 152-153, Morning Session, Monday 7 December 2009;

²⁷⁵⁴ Page 144, Morning Session, Monday 7 December 2009;

corridor 3²⁷⁵⁵. It is apparent from the evidence of BA team 1 that what Mr Buick observed was the evacuation of Isabella McLeod from room 11.

228. At some point thereafter, but probably before he left the building to obtain a new oxygen cylinder²⁷⁵⁶, Mr Buick went into room 16. By this stage his BA warning whistle was sounding continuously²⁷⁵⁷. Mr Buick found an elderly male, Thomas Cook, lying on the floor. He was fully clothed. The door to room 16 was open. The room itself was heavily smoke logged, as depicted in photograph 340B. Mr Buick formed the view that Mr Cook was dead. Another firefighter in the vicinity, whom Mr Buick thought was Firefighter Gordon Hector, assisted Mr Buick to evacuate Thomas Cook along the corridor. They were instructed by Leading Firefighter MacDiarmid to place Mr Cook in room 61, the day room²⁷⁵⁸. At the day room Mr Buick confirmed that Mr Cook was deceased. There was no pulse and no other vital signs of life²⁷⁵⁹.

229. Meanwhile, Mr Ferguson and Mr Buchan proceeded to room 9. Mr Ferguson observed a resident, Julia McRoberts, lying on her back on the bed nearest the door²⁷⁶⁰. At this point there were a total of four fighters in the vicinity; they included Firefighter Alan Campbell and Firefighter Colin Gray (although in this respect it should be noted that Mr Campbell was accompanied by Firefighter Brendan O'Dowd). Ms McRoberts was unresponsive and her face was covered with soot. The fire officers attempted to lift her out of bed and managed to place her on the floor. No signs of life having been found, however, a decision was taken that she should be left *in situ*. At this point Mr Ferguson's low pressure warning was sounding and he and Mr Buchan headed out to the foyer. Mr Buchan spoke to an intervening return to the foyer to report the progress of the search. He related that Mr Clark, no longer on BA, had asked him to return to the casualty at room 9 and try and evacuate her, whereafter

²⁷⁵⁵ Page 153, Morning Session, Monday 7 December 2009;

²⁷⁵⁶ Pages 2-4, Afternoon Session, Monday 7 December 2009; Label 1506, CCTV, 0623.16 (0518.57) hours; Page 162, Morning Session, Monday 7 December 2009;

²⁷⁵⁷ Pages 154-155, Morning Session, Monday 7 December 2009;

²⁷⁵⁸ Pages 5-10, Afternoon Session, Monday 7 December 2009;

²⁷⁵⁹ Pages 11-12, Afternoon Session, Monday 7 December 2009

²⁷⁶⁰ Page 26, Afternoon Session, Tuesday 8 December 2009;

further attempts were made to do so. While Mr Ferguson did not speak to this event, it is entirely possible that Mr Buchan was correct. It would account for why Firefighter Gray, a member of BA team 4 and whose search appears to have coincided with the completion of search and rescue by BA team 1, was present at room 9 at the same time as BA team 2²⁷⁶¹. It would also explain why Firefighter Alexander (known as Alan) Campbell spoke to encountering BA team 2 and two other fire fighters (which in the circumstances must have been BA team 4) when they visited room 9^{2762 2763}.

230. Mr Buick returned again to corridor 4 after changing his cylinder. Whilst he was outside there were other teams in corridor 4²⁷⁶⁴. Mr Buick was instructed by Assistant Divisional Officer Atkinson to return to corridor 4 and count the number of fatalities²⁷⁶⁵. He did so. He looked into rooms 17, 16, 15, 14, and then from room 13 round to room 9. Mr Buick counted 7 fatalities, all within bedrooms in corridor 4. He also counted 3 fatalities positioned in room 61²⁷⁶⁶.

Make Pumps Four

231. Station Officer Campbell's Make Pumps 4 message was logged at 0506 hours²⁷⁶⁷. The Full Incident Log, therefore, records a passage of time of 11 minutes between the Make Pumps 3 and Make Pumps 4 messages²⁷⁶⁸.

232. Mr Campbell anticipated that the fourth appliance would provide him with additional BA wearers who could assist in the search and evacuation of corridor 4²⁷⁶⁹.

²⁷⁶¹ Pages 26-32, Afternoon Session, Tuesday 8 December 2009; Evidence of Jamie Buchan, Pages 118-126, Morning Session, Monday 14 December 2009;

²⁷⁶² Pages 59-61, Morning Session, Friday 11 December 2009;

²⁷⁶³ Pages 11-12, Afternoon Session, Monday 7 December 2009;

²⁷⁶⁴ Pages 21-22, Afternoon Session, Monday 7 December 2009;

²⁷⁶⁵ Page 18, Afternoon Session, Monday 7 December 2009;

²⁷⁶⁶ Pages 22-25, Afternoon Session, Monday 7 December 2009;

²⁷⁶⁷ Production 206, Full Incident Log, page 11; page 50, Afternoon Session, Friday 8 January 2010;

²⁷⁶⁸ Page 50, Afternoon Session, Friday 8 January 2010;

²⁷⁶⁹ Pages 58, 60, Afternoon Session, Friday 8 January 2010;

The situation was developing and Mr Campbell had become aware that the entire upper floor beyond the lift enclosure had become smoke logged²⁷⁷⁰.

233. Mr Campbell accepted that it would be accurate to say (as he did in his statement to the police on 2 February 2004) that, in making Pumps 4, he realized that the number of residents in the Home were too great for the number of firefighters then available²⁷⁷¹.

234. Mr Campbell was not aware of how long it would take for additional resources to reach Rosepark in response to the Make Pumps 4 message²⁷⁷².

The Arrival of E011

235. E011, the Hamilton first appliance, was actually the second of the Hamilton appliances to attend the incident. It was mobilised at 0456.32 hours in response to Station Officer Campbell's instruction to make Pumps 3, and was mobile to the incident at 0458.57 hours²⁷⁷³.

236. The crew of E011 comprised Sub Officer Alastair Ross (Officer in Charge), and Firefighters Alan Campbell (BA wearer), Brendan O'Dowd (BA wearer), John Devine (BA Entry Control) and Gordon Hector (driver)²⁷⁷⁴

237. The arrival time of E011 is recorded in the Incident Resource History as being 0552.42 hours. The log entry is clearly erroneous. Members of the crew of E011, who gave evidence, were clearly engaged actively at the incident long before this

²⁷⁷⁰ Page 58, Afternoon Session, Friday 8 January 2010;

²⁷⁷¹ Page 65, Afternoon Session, Friday 8 January 2010;

²⁷⁷² Pages 53-54, Afternoon Session, Friday 8 January 2010; Pages 70-71, Morning Session, Monday 11 January 2010;

²⁷⁷³ Victoria Neill, 4 December 2009, am, pp110-114; Production 270;

²⁷⁷⁴ Alastair Ross, 14 December 2009, am, p142; Gordon Hector, 14 December 2009, am, pp3-4; Alan Campbell, 11 December 2009, am, pp2-5; Brendan O'Dowd, 11 December 2009, pm, pp69-70; John Devine, 15 December 2009, am, pp80-82;

time. It is possible that other data traffic on the radio channel could block the signal from the appliance²⁷⁷⁵.

238. The driver of E011, Firefighter Gordon Hector thought that it had taken about five minutes, or under, to travel from Hamilton to Rosepark²⁷⁷⁶. That would be consistent with the travel of time of 5 minutes and 3 seconds ascribed to E012 by the Incident Resource History²⁷⁷⁷.

239. E011 initially attended at the New Edinburgh Road end of Rosepark. There had been an instruction to enter via Rosepark Avenue²⁷⁷⁸ but, because the crew were donning fire kit in the back of the appliance there had not been time to consult a map²⁷⁷⁹. The VMDS on E011 was not working²⁷⁸⁰.

240. Blue flashing lights were visible at the other end of Rosepark. Mr Hector initially attempted to gain access to that end of Rosepark by turning right off New Edinburgh Road but could not do so. The crew successfully found the right address on the map and Mr Hector executed a u-turn and drove the appliance to Rosepark Avenue²⁷⁸¹

241. *Allowing for the manoeuvring on New Edinburgh Road it is reasonable to conclude that E011 arrived at Rosepark at or shortly after 0505 hours.*

²⁷⁷⁵ Victoria Neill, 4 December 2009, am, pp112-114;

²⁷⁷⁶ Gordon Hector, 14 December 2009, am, p6;

²⁷⁷⁷ Production 270; Victoria Neill, 4 December 2009, am, pp111-112;

²⁷⁷⁸ Victoria Neill, 4 December 2009, am, p145; Production 206, Full Incident Log, page 7, where the entry for 0456 hours carries with it an instruction “Enter Rosebank Avenue”;

²⁷⁷⁹ Gordon Hector, 14 December 2009, am, p7;

²⁷⁸⁰ Alastair Ross, 14 December 2009, am, pp151-154; Gordon Hector, 14 December 2009, am, p9;

²⁷⁸¹ Gordon Hector, 14 December 2009, am, pp10-11;

242. Sub Officer Ross disembarked and spoke to Firefighter Caldwell of the Bellshill crew. He assisted Mr Caldwell to open the gate which can be seen in photographs 887H and 887I²⁷⁸².

243. Sub Officer Ross then entered the building. He identified himself as having entered the foyer just before the CCTV footage was paused at 0616.02 (0511.43) hours²⁷⁸³. He saw Station Officer Campbell talking to a police officer and a paramedic²⁷⁸⁴.

244. Mr Ross approached Station Officer Campbell and asked him where the fire was. Mr Campbell replied that he believed the fire to be in the lift area²⁷⁸⁵.

245. Mr Ross offered to obtain a plan of the building from the VMDS system in order to assist with the briefing of BA teams²⁷⁸⁶. He first approached Firefighter Caldwell of E031 at about 0616.25 (0511.06) hours²⁷⁸⁷ and was told that the VMDS was not working²⁷⁸⁸. He then approached Firefighter Gray of E012. He was told that the VMDS was operational. However, the printer was out of paper so Mr Ross was unable to provide Mr Campbell with a plan from any of the first three attending appliances²⁷⁸⁹.

246. He did, however, relate to Station Officer Campbell that he had seen on the VMDS that there was a further protected stairway enclosure to the west of the building²⁷⁹⁰.

²⁷⁸² Alastair Ross, 14 December 2009, pm, pp4-6;

²⁷⁸³ Alastair Ross, 14 December 2009, pm, pp6-9;

²⁷⁸⁴ Alastair Ross, 14 December 2009, pm, p10;

²⁷⁸⁵ Alastair Ross, 14 December 2009, pm, p11;

²⁷⁸⁶ Alastair Ross, 14 December 2009, pm, pp12-13;

²⁷⁸⁷ Alastair Ross, 14 December 2009, pm, pp13-14;

²⁷⁸⁸ Alastair Ross, 14 December 2009, pm, pp12-13;

²⁷⁸⁹ Alastair Ross, 14 December 2009, pm, pp12-15;

²⁷⁹⁰ Alastair Ross, 14 December 2009, pm, pp23-25;

247. Having failed to secure a VMDS plan Mr Ross was involved at the front of the building. He assisted in carrying a resident to the Rose Lounge and extending the hose reel to the area of the lift, using a round table to hold open the fire door at room 1²⁷⁹¹.

248. It is unclear on the evidence which resident was being assisted to the Rose Lounge. By this time (sometime after 0511 hours) the residents of corridor 3 had been evacuated. The only other residents evacuated to the Rose Lounge thereafter were Robina Burns and Isabella MacLeod. Mrs MacLeod's rescue, estimated at approximately, 0509 hours, is the closest in time to the events described by Mr Ross.

249. The moving of the fire hose was identified from the CCTV from 0624.43 (0520.24) hours²⁷⁹²

250. Mr Ross thereafter descended to the lower level in order to assess the extent of the fire, smoke spread and to locate casualties²⁷⁹³

Search and Rescue Operations by BA team 3 (Campbell and O'Dowd)

251. Meanwhile, BA team 3 which formed part of the crew of E011²⁷⁹⁴ was deployed along corridor 3.

252. On the arrival of the appliance, Firefighter Campbell spoke to Station Officer Campbell, who was standing at the main doors to the building. Station Officer Campbell instructed BA team 3 to go down the main corridor and carry out a search²⁷⁹⁵. Mr Campbell was also advised, and Mr O'Dowd was aware, that there were two other BA teams already searching in the building; one (in Mr Campbell's recollection) was in the basement and one was ahead of them. It was a very short and

²⁷⁹¹ Alastair Ross, 14 December 2009, pm, pp19-24, 32-33;

²⁷⁹² Alastair Ross, 14 December 2009, pm, p31ff.;

²⁷⁹³ Alastair Ross, 14 December 2009, pm, pp35-36;

²⁷⁹⁴ Pages 2-4, Morning Session, Friday 11 December 2009;

²⁷⁹⁵ Pages 17-20, Morning Session, Friday 11 December 2009;

general brief²⁷⁹⁶. BA team 3 was given no indication of the layout of the building, the number of bedrooms or the number of people there²⁷⁹⁷.

Search of Corridor 3

253. Mr Campbell and Mr Dowd headed along to corridor 3. CCTV footage times the commencement of their search at 0615.59 (0511.40) hours (some 5 minutes after the sixth casualty was observed to be evacuated from corridor 3 to the foyer)²⁷⁹⁸. Visibility there was still very poor with the smoke extending down to ground level²⁷⁹⁹. When they entered corridor 3 Mr Campbell and Mr O'Dowd checked to make sure that no one was in any of the bedrooms. Mr Campbell went right and Mr O' Dowd went left. They did not, at that stage, know whether this part of the Home had been searched before²⁸⁰⁰ but some of the rooms looked as though they had been²⁸⁰¹.

Search of Corridor 4

254. BA team 3 entered corridor 4²⁸⁰². It was warmer than in corridor 3²⁸⁰³.

Room 17

255. To the right, and beyond the fire door between corridors 3 and 4, lay room 17. Mr Campbell spoke to finding a resident, Agnes Dennison, in room 17, on top of the bed while his colleague was searching the other side of corridor 4²⁸⁰⁴. Conditions in room 17 were the same as they were in the corridor²⁸⁰⁵. Invited to compare those conditions with the conditions in the photograph of room 10 shown in 354C, Mr Campbell adopted the expression "night and day"²⁸⁰⁶.

²⁷⁹⁶ Pages 28-29, Morning Session, Pages 72-74, Friday 11 December 2009;

²⁷⁹⁷ Page 136, Morning Session, Friday 11 December 2009;

²⁷⁹⁸ Label 1506, CCTV footage; Pages 24-25, Morning Session, Friday 11 December 2009;

²⁷⁹⁹ Pages 32-33, 39-40, Morning Session, Friday 11 December 2009;

²⁸⁰⁰ Pages 34-35, Morning Session, Pages 78-79, Afternoon Session, Friday 11 December 2009;

²⁸⁰¹ Page 38, Morning Session, Friday 11 December 2009;

²⁸⁰² Page 40, Morning Session, Friday 11 December 2009;

²⁸⁰³ Page 42, Morning Session, Friday 11 December 2009;

²⁸⁰⁴ Pages 44-45, Morning Session, Friday 11 December 2009;

²⁸⁰⁵ Pages 41-43, Morning Session, Friday 11 December 2009; Production 341A, C

²⁸⁰⁶ Page 45, Morning Session, Friday 11 December 2009;

256. BA team 3 checked Mrs Dennison for any signs of life. They found no pulse. They concluded that she was deceased²⁸⁰⁷. According to Mr Campbell another firefighter assisted BA team 3 to take Agnes Dennison towards the foyer²⁸⁰⁸. It is the presence of this other firefighter which, in circumstances which might be thought to be redolent of confusion in recollection, links this chapter of the evidence with the evidence of BA team 1 relative to room 17. Mr Campbell thought that he and Mr O'Dowd left Mrs Dennison with a firefighter, probably Leading Firefighter MacDiarmid, and a paramedic. He also thought that they had handed her over in the vicinity of room 61, the day room, and was subsequently told that she had been taken into that room²⁸⁰⁹.

Room 16

257. BA team 3 returned to corridor 4 and searched all of the rooms down to the dogleg²⁸¹⁰. They looked into room 16 (Thomas Cook) but there was, by then, nobody in that room²⁸¹¹.

Rooms 7 and 8

258. Between them BA team 3 appears to have checked rooms 7 and 8, Mr Campbell describing how they checked each room down to the dogleg²⁸¹².

Cupboards

259. Mr O'Dowd saw pockets of fire in the vicinity of cupboard A2. He removed the left hand door to the cupboard and placed it, he thought, next to the sluice room. The right hand door was partially destroyed and Mr O'Dowd thought that it had been slightly open. There was a smouldering fire, mostly burnt out, at the right hand side of the cupboard. There was damage within the cupboard. The electrics on the left hand side were damaged and it looked as though an electrical meter on the left hand wall of the interior of the cupboard had been damaged. There was a lot of damage on the left hand side but nothing left to burn. The right hand side was still slightly alight.

²⁸⁰⁷ Pages 49-50, Morning Session, Friday 11 December 2009; Pages 82-87, Afternoon Session, Friday 11 December 2009;

²⁸⁰⁸ Pages 48-49, Morning Session, Friday 11 December 2009;

²⁸⁰⁹ Pages 50-51, Morning Session, Friday 11 December 2009;

²⁸¹⁰ Page 55, Morning Session, Friday 11 December 2009;

²⁸¹¹ Page 56, Morning Session, Friday 11 December 2009;

²⁸¹² Page 55, Morning Session, Friday 11 December 2009; Page 87, Afternoon Session, Friday 11 December 2009;

Mr O'Dowd went back and retrieved a hose reel. He used it to put out the fire on the right hand side of the cupboard, away from the electrics. He also used it on the bath chair which was located at the dogleg²⁸¹³.

Room 9

260. While Mr O'Dowd fetched the hose reel Mr Campbell reached room 9 where BA team 2 were attending to Julia McRoberts. There were two further firefighters in the area. Mr Ferguson was exhausted and disorientated and Mr Campbell assisted him back to the vicinity of corridor 2²⁸¹⁴.

Room 15

261. Having checked the shower and WC opposite room 10²⁸¹⁵ Mr O'Dowd, followed by Mr Campbell, entered room 15. The room was heavily smoke logged. The conditions were the same as, or only slightly better than, those found in the corridor. They found the occupant, Margaret McWee, lying on the bed. She was examined for signs of life but none were found. BA team 3 concluded that she was deceased and elected to continue the search. They broke the glass in the windows to clear out the smoke²⁸¹⁶.

262. They resumed their search of corridor 4b, the intention being to cover the bedrooms on both sides²⁸¹⁷

Rooms 10 and 11

263. Neither Mr Campbell nor Mr O'Dowd looked into room 10. Mr Campbell did not recall being in any room where the conditions were as clear as they were in room 10 and room 11²⁸¹⁸.

²⁸¹³ Pages 88-94, Afternoon Session, Friday 11 December 2009;

²⁸¹⁴ Pages 59-62, Morning Session, Friday 11 December 2009;

²⁸¹⁵ Page 64, Morning Session, Friday 11 December 2009;

²⁸¹⁶ Pages 66-69, Morning Session, Friday 11 December 2009; Pages 98-99, Afternoon Session, Friday 11 December 2009;

²⁸¹⁷ Page 69, Morning Session, Friday 11 December;

²⁸¹⁸ Productions 354C and 353A refer; Pages 70-72, Morning Session, Page 100, Afternoon Session, Friday 11 December 2009;

Room 12

264. Mr Campbell (and possibly Mr O'Dowd) checked room 12 and found nobody within²⁸¹⁹. It had previously been checked by BA team 1.

Room 13

265. Both Mr Campbell and Mr O'Dowd checked room 13. It had previously been visited by BA team 1. They found two casualties, both of whom were again checked for vital signs of life, without success²⁸²⁰.

Room 14

266. Both Mr Campbell and Mr O'Dowd checked room 14. There were two residents in room 14. One of them was lying on the floor. The other resident was in bed. Both were checked for vital signs of life, without success, and left *in situ*. Visibility was better at the far end of corridor but the room was still smoky²⁸²¹.

267. On completion of the search BA team 3 descended the stairway at the end of corridor 4 and reported to Station Officer Campbell back at the foyer²⁸²². Mr O'Dowd confirmed that they had ventilated the rooms where they had located casualties²⁸²³.

Search and Rescue Operations by BA team 4 (Gray and Hector)

268. Colin Gray was the driver of the second Hamilton appliance, E012, which was mobilized in along with E031 from Bellshill. After initially mobilizing to New Edinburgh Road, Mr Gray parked E012 at the Rosepark Avenue entrance to the Home to enable the crew to dismount. He then parked up at the top carpark and assisted in laying out the hose from E031²⁸²⁴.

²⁸¹⁹ Pages 73, Morning Session, Page 99-100, Afternoon Session, Friday 11 December 2009;

²⁸²⁰ Pages 73-77, Morning Session, Page 100, Afternoon Session, Friday 11 December 2009;

²⁸²¹ Pages 73-77, Morning Session, Page 100, Afternoon Session, Friday 11 December 2009;

²⁸²² Pages 80-82, Morning Session, Friday 11 December 2009;

²⁸²³ Page 104, Afternoon Session, Friday 11 December 2009;

²⁸²⁴ Pages 155-158, Morning Session, Friday 11 December 2009;

269. Mr Gray offloaded medical equipment from both appliances and was asked by Firefighter Caldwell, of E031, about the establishment of a BA entry control board²⁸²⁵. However, he became involved in assisting with breaking the lock of the gate to the (west) side of the Home leading to the garden from whence residents were in the process of being evacuated from the lower ground floor corridor²⁸²⁶. The BA entry control board was subsequently established by Firefighter Ross French²⁸²⁷.

270. Mr Gray suggested to Station Officer Campbell that when the next Hamilton appliance, E011, arrived he (Mr Gray) should form a BA team with its driver (Firefighter Gordon Hector). Mr Campbell agreed with the suggestion²⁸²⁸.

271. When E011 arrived, Mr Gray, within two to three minutes of its arrival, donned BA and advised Mr Hector to do likewise²⁸²⁹. Station Officer Campbell briefed them outside the premises. He told them to go in, locate the fire, and put it out²⁸³⁰. At the time the seat of the fire had still not been established and, although Mr Campbell still thought that the fire was in the area of the lift, he was aware of the possibility of unseen fire spread²⁸³¹.

272. As matters transpired, BA team 4 met Sub Officer Clark in the foyer. Mr Clark was in BA but did not have his mask on. Mr Clark changed the team's instructions. He told them that the fire was out and that the team was to go and retrieve a casualty who had been left at the fire door after the lift. BA team 4 headed along to corridor 3. As they entered corridor 3 there was a female casualty along the right hand wall of the corridor in the vicinity of room 10. Mr Gray and Mr Hector carried her to room 61, the day room. Mr Gray had her legs (thereby confirming that the person they were

²⁸²⁵ Page 162, Morning Session, Friday 11 December 2009;

²⁸²⁶ Pages 163-164, Morning Session, Friday 11 December 2009;

²⁸²⁷ Page 165, Morning Session, Friday 11 December 2009;

²⁸²⁸ Pages 169-172, Morning Session, Friday 11 December 2009;

²⁸²⁹ Pages 171-172, Morning Session, Friday 11 December 2009;

²⁸³⁰ Page 173, Morning Session, Friday 11 December 2009;

²⁸³¹ Pages 59-61, Morning Session, Monday 11 January 2010 (Evidence of Steven Campbell);

carrying cannot have been Margaret Lappin and must, therefore, have been Agnes Dennison). Mr Gray thought (probably mistakenly, in view of the evidence of BA team 1) that there was no one else in the day room when they went in. BA team 4 then reported to Mr Clark who told them that there were still persons unaccounted for in rooms 9-18. Mr Clark had, by then, concluded BA operations. He was standing with the owner holding a plan of the Home²⁸³².

Search of Corridor 3

273. Mr Gray and Mr Hector conducted a left hand search through the ground floor corridor. They searched every room on the left hand side of corridor 3 and found no one there²⁸³³. They opened windows as they searched in order to ventilate the building²⁸³⁴. When they searched rooms 4, 5 and 6 BA team 4 did not know whether these rooms had already been searched²⁸³⁵.

274. Mr Hector estimated that it had taken 2-3 minutes, perhaps as much as 5, to search corridor 3. They searched corridor 3 because they had no idea where the corridor started or finished and it was, he said, good housekeeping to make sure that the corridors had been properly searched. Mr Hector did not know whether corridor 3 was where Mr Clark had wanted them to search²⁸³⁶.

Search of Corridor 4

275. The left hand search continued in corridor 4²⁸³⁷. BA team 4 found no one in the WCs, the sluice room and rooms 7 and 8. They were ventilating the rooms as they went²⁸³⁸.

²⁸³² Pages 174-180, Morning Session, Pages 1-3, Afternoon Session, Friday 11 December 2009; Page 38, Morning Session, Monday 14 December 2009;

²⁸³³ Page 14, Afternoon Session, Friday 11 December 2009;

²⁸³⁴ Pages 15-16, Afternoon Session, Friday 11 December 2009;

²⁸³⁵ Page 15, Afternoon Session, Friday 11 December 2009; Pages 45-51, Morning Session, Monday 14 December 2009;

²⁸³⁶ Page 48-50, Morning Session, Monday 14 December 2009;

²⁸³⁷ Page 7, Afternoon Session, Friday 11 December 2009; Page 51, Morning Session, Monday 14 December 2009;

²⁸³⁸ Colin Gray, 11 December 2009, pm, p13; Gordon Hector, 14 December 2009, am, p64;

Room 9

276. At room 9 they met Buchan and Ferguson who were already there trying to lift a casualty, Julia McRoberts, Mr Gray believed that Alan Campbell was there as well. Julia McRoberts was a possible fatality, and Mr Gray believed that she was already dead. They tried to assist but could not lift her. They did not go all the way into the room. There was smoke down to ground level in this room. They could not tell that it was a double bedroom. They did not go as far as the bed on the other side of the room. Because they could not lift her they took a collective decision that Mr Gray and Mr Hector would continue to search along the corridor. So far as Mr Gray was aware room 9 was not vented²⁸³⁹.

Room 10

277. The door to room 10 was shut, and remarkably intact. The plastic kick plate at the bottom of the door had melted onto the frame. Mr Gray did not think it had been opened. Mrs Burns' statement given to her daughter evidenced the fact that she had opened her door after the fire had broken out, but quickly closed it again. It also disclosed that Mrs Burns quickly closed the door again²⁸⁴⁰.

278. Mr Gray went into the room. There was a lady sitting in front of him, on a chair, slumped over to the right. Mr Gray was referred to photograph 354C. The view was consistent with his recollection of the interior of the room. The conditions in the room were very good compared with those in the corridor. There was not a great deal of smoke in the room. Compared with room 9, room 10 was remarkably intact. Mr Gray did not notice whether the window was open or shut. Mr Gray did not think it would have been life threatening for him to have taken off his mask in the room, although they had opened the door and therefore let smoke in.

279. The chair was directly in front of the door as he walked in. Mr Gray and Mr Hector approached her. She seemed to be comatose. She grunted. Mr Hector said that he had seen her eyes move. They decided to evacuate her immediately. They took

²⁸³⁹ Pages 9-12, Afternoon Session, Friday 11 December 2009;

²⁸⁴⁰ See chapter 36, paras. 1.6-1.7; Agnes Crawford, 16 November 2009, pm, pp60, 61, 67;

her along the corridor to the foyer area. As soon as they walked through the door to that area, Leading Firefighter MacDiarmid took over from Mr Gray and carried her, along with Gordon Hector, towards the front of the building. Mr Gray carried her top half and Mr Hector carried her bottom half. They had to take her out through corridor 4 which was still smoke logged although conditions were improving. They also had to take her through corridor 3 and 4 both of which were still smoky. They did not have the facility to give her oxygen whilst she was being removed. They try to transport casualties as quickly as possible, keeping them as low as possible, to minimise their smoke exposure. By Mr Hector's estimate, which was unchallenged, it took BA team 4 about one minute, or possibly under one minute, to get from room 10 to corridor 1 with Mrs Burns²⁸⁴¹.

280. Mr Hector clarified, in cross examination, that before they entered room 10 BA team 4 had started ventilating the building, and that the conditions in corridor 4, when they entered room 10, would not have been as bad as they had been a few minutes previously²⁸⁴²

281. Mr Hector's unchallenged evidence was that Mrs Burns could be seen being evacuated on the CCTV footage at about 0644.20 (0540.01) hours²⁸⁴³. Taking into account Mr Hector's evidence about how long it took to evacuate her from room 10, one can place her time of rescue at about 0539 hours (or some 49 minutes after BA team 1 deployed at 0450 hours²⁸⁴⁴).

282. There is independent support for the accuracy of his testimony. Mr Hector identified from the footage the presence of Leading Firefighter McDiarmid, Firefighter Caldwell and himself. Mr Gray was not there²⁸⁴⁵. This accords with Mr Gray's evidence that, whilst Mr Hector and Mr McDiarmid carried Mrs Burns the last

²⁸⁴¹ Pages 17 – 22, Afternoon Session, Friday 11 December 2009; Pages 62-67, Morning Session, Monday 14 December 2009;

²⁸⁴² Gordon Hector, 14 December 2009, am, pp82-83;

²⁸⁴³ Pages 66-68, Morning Session, Monday 14 December 2009;

²⁸⁴⁴ James Clark, 8 December 2009, pm, pp94-95;

²⁸⁴⁵ Pages 67-68, Morning Session, Monday 14 December 2009;

part of the way to the Rose Lounge, he returned to corridor 4 and encountered, and dealt with, a small fire in the vicinity of cupboard A2²⁸⁴⁶. Moreover, Firefighter John Devine, a fire officer who assisted with casualties in the Rose Lounge, was able to identify the casualty filmed on CCTV being carried to the Rose Lounge at 0644.20 (0540.01) hours as the last casualty to be brought out to that place²⁸⁴⁷.

283. There is no evidence that anyone was evacuated to the Rose Lounge later than Mrs Burns. In the circumstances it can be concluded with reasonable certainty that the casualty shown in the CCTV and identified by Firefighter Hector was indeed Robina Burns, and that she did not reach the foyer until about 0540 hours²⁸⁴⁸.

284. It is also instructive that, when asked approximately how far through the search and rescue operation of BA team 4 Robina Burns had been rescued from room 10, Mr Gray offered the answer 20 minutes²⁸⁴⁹. Assuming that they deployed at about 0519 hours (such being the evidence of BA team 1 about when they concluded BA operations and encountered Mr Gray and Mr Hector)²⁸⁵⁰ then a rescue time shortly before 0540 hours looks entirely realistic.

²⁸⁴⁶ Pages 22-25, Afternoon Session, Friday 11 December 2009;

²⁸⁴⁷ Pages 97-99, Morning Session, Tuesday 15 December 2009

²⁸⁴⁸ cf. Production 2053, Revised Report by Professor David Purser, Appendix B, page 64;

²⁸⁴⁹ Pages 32, 36-37, Afternoon Session, Friday 11 December 2009;

²⁸⁵⁰ See also Mr Gray's evidence, Pages 38-39, Afternoon Session, Friday 11 December 2009;

Return to corridor 4 after evacuation of Mrs Burns

285. It appears that both Mr Gray and Mr Hector returned to corridor 4 after Mrs Burns' rescue²⁸⁵¹. Their movements are not altogether clear. Mr Hector speaks to assisting Mr Buick conveying Thomas Cook from room 16 to room 61²⁸⁵². In view of Mr Buick's evidence about when he entered room 16, and the timing of his departure from the Home for more oxygen, it is difficult to avoid the conclusion that Mr Hector was mistaken about the timing of his involvement in the evacuation of Thomas Cook. Mr Buick's search of room 16 appears to have occurred at a time when BA teams 2, 3 and 4 were in the vicinity of room 9, assisting Mrs McRoberts.

286. Having left Robina Burns with Mr Hector and Mr McDiarmid, Mr Gray returned to the area of the dogleg and attended to a small fire on the floor in the vicinity of cupboard A2²⁸⁵³. Mr Hector and Mr Gray met up again. By that time Mr Hector was getting to low on air. They headed to the foyer and went outside. Mr Hector was able to obtain a spare cylinder but Mr Gray could not do so; they had all been used up²⁸⁵⁴. BA team 4 was not thereafter redeployed in BA²⁸⁵⁵.

287. Finally, BA team 4 was instructed by ADO Atkinson to count the number of fatalities *in situ*. They found ten fatalities in total, three of whom were located in room 61, and the remainder in their bedrooms²⁸⁵⁶.

Movements of Sub-Officer Ross

288. Earlier in the incident Sub-Officer Alastair Ross had descended to the lower level. He had discovered that the smoke diminished as he did so and the fire exit at the bottom of the stairs at the lift was afar²⁸⁵⁷.

²⁸⁵¹ Pages 22-25, Afternoon Session, Friday 11 December 2009; Pages 68-76, Morning Session, Monday 14 December 2009;

²⁸⁵² Pages 68-77, Morning Session, Monday 14 December 2009;

²⁸⁵³ Pages 22-25, Afternoon Session, Friday 11 December 2009;

²⁸⁵⁴ Page 30, Afternoon Session, Friday 11 December 2009; Page 77, Morning Session, Monday 14 December 2009;

²⁸⁵⁵ Colin Gray, 11 December 2009, pm, pp30-31

²⁸⁵⁶ Colin Gray, 11 December 2009, pm, pp40-50; Gordon Hector, 14 December 2009, am, p80;

²⁸⁵⁷ Alastair Ross, 14 December 2010, pm, p37;

289. Mr Ross proceeded along the lower level. The lights were on. There was nobody in any of the bedrooms. Mr Ross could hear the footfall of BA crews working on the floor above. He went as far as the fire door at the far end of the lower floor²⁸⁵⁸.

290. Mr Ross proceeded up the stairs at the end of the lower level corridor. There was smoke in the stairwell which prevented him from reaching the top of the stairs. At the bottom of the stairs was a fire exit. It was not being used. Mr Ross decided that it would be best to use this as a second point of entry from which to operate²⁸⁵⁹.

291. Mr Ross returned via the New Edinburgh Road elevation of the building to the main entrance, climbing over a padlocked gate near the fire exit on the way. Mr Ross could hear the sounds of breaking glass which he took to be either crews ventilating the building or windows cracking due to heat²⁸⁶⁰.

292. Mr Ross reported his observations to Station Officer Campbell at the main entrance. He informed Mr Campbell that there was another protected stairwell, that it should be used as another point of entry, and that he (Mr Ross) should take charge of that sector. Mr Campbell agreed. Mr Ross observed, at this point, the arrival of E042, which was responding to the make Pumps 4 transmission²⁸⁶¹.

293. Mr Ross spoke to Leading Firefighter Gary Murphy, the officer in charge of E042, in the car park at the main entrance. E042 arrived at 0525 hours²⁸⁶². He instructed Mr Murphy that the plan was to effect a second entry at the west ground floor enclosure, that Mr Murphy should re-deploy to New Edinburgh Road and

²⁸⁵⁸ Alastair Ross, 14 December 2010, pm, pp37-42;

²⁸⁵⁹ Alastair Ross, 14 December 2010, pm, pp42-43;

²⁸⁶⁰ Alastair Ross, 14 December 2010, pm, pp44-48;

²⁸⁶¹ Alastair Ross, 14 December 2010, pm, pp48-49;

²⁸⁶² Alastair Ross, 14 December 2010, pm, pp49-52; Production 206, p15;

instruct his crew to break the padlock on the gate in preparation for deployment of a BA crew there²⁸⁶³.

294. Circumstances in Rosepark Avenue conspired against the re-deployment of E042 to New Edinburgh Road²⁸⁶⁴. As a result Mr Ross instructed Mr Murphy that, before donning BA, his crew should run a hose from the hydrant on New Edinburgh Road (on the basis that BA crews should not be committed without a hose). Mr Ross subsequently learned that the BA team from E042 was deployed through the main entrance²⁸⁶⁵.

Make Pumps Six

295. Mr Ross recalled suggesting to Mr Campbell that they should make Pumps 6 because it would be prudent to have greater for resources available for all of the activities required²⁸⁶⁶. He was unsure when this exchange took place, and Mr Campbell did not recall Mr Ross as being the source of the suggestion²⁸⁶⁷. At all events, they agreed that a message should be transmitted, directing the additional appliances to attend at New Edinburgh Road²⁸⁶⁸. Since Mr Ross recalled observing the arrival of E042 when he returned to the main entrance it is probable that any discussion about making Pumps 6 occurred shortly before the message was transmitted.

296. The Make Pumps 6 message is logged in the Full Incident Log at 0525 hours in the terms “Make Pumps 6 – Several possible fatalities send on Fire Invest and Audio Visual”²⁸⁶⁹.

297. In response to the Make Pumps Six message two further appliances were mobilized to attend at Rosepark. They were E041 and E022, and they were both

²⁸⁶³ Alastair Ross, 14 December 2010, pm, pp49-51; 58-59;

²⁸⁶⁴ Alastair Ross, 14 December 2010, pm, pp58-61;

²⁸⁶⁵ Alastair Ross, 14 December 2010, pm, pp61-64;

²⁸⁶⁶ Alastair Ross, 14 December 2010, pm, pp54-55;

²⁸⁶⁷ Steven Campbell, 11 January 2010, am, pp73-74;

²⁸⁶⁸ Alastair Ross, 14 December 2010, pm, pp54-56;

²⁸⁶⁹ Production 206, Page 15; Pages 3-7, Morning Session, Monday 11 January 2010;

mobilized at 0526.01 hours. E022 was mobile to the incident at 0528.18 hours in attendance at 0537.14 hours. EO41 was mobile to the incident at 0528.23 hours and in attendance at 0537.22 hours²⁸⁷⁰

298. Station Officer Campbell was under the impression that he already had sufficient resources to deal with the incident but, by making Pumps 6, he would get resources for relief of existing personnel, investigation or damping down procedures²⁸⁷¹. He did not determine that additional resources were required. He was concerned to mobilize the command and control unit of Strathclyde Fire and Rescue and senior officers. The incident was extremely serious and would require investigation and the attendance of such officers²⁸⁷².

Search and Rescue Operations by BA team 5 (Nelson and Mitchell)

299. Paul Nelson was a BA wearer (BA1) on E042. The other member of the BA team was John Mitchell²⁸⁷³.

300. While, at the request of Mr Ross, Mr Nelson was donning BA, the gate at the bottom fire exit near New Edinburgh Road was opened²⁸⁷⁴.

301. Mr Nelson and Mr Mitchell did not deploy at the New Edinburgh Road end of the building. Instead, they approached the BA entry control point by the main entrance and spoke to Sub Officer Clark. He was sent in to locate and rescue casualties in rooms 14 and 15²⁸⁷⁵. BA team 5 headed along the upper level corridor²⁸⁷⁶.

²⁸⁷⁰ Production 270, Incident Resource History; Production 206, Full Incident Log; Evidence of Victoria Neill, Pages 128 *et seq.*, Morning Session, Friday 4 December 2009;

²⁸⁷¹ Pages 27-28, Morning Session, Monday 11 January 2010;

²⁸⁷² Pages 78-79, Morning Session, Monday 11 January 2010;

²⁸⁷³ Paul Nelson, 15 December 2009, am, pp110-112;

²⁸⁷⁴ Paul Nelson, 15 December 2009, am, pp119-120;

²⁸⁷⁵ Paul Nelson, 15 December 2009, am, pp146-147;

²⁸⁷⁶ Paul Nelson, 15 December 2009, am, pp123-126;

302. They entered corridor 4 and checked the rooms there. They met Mr Ross in a room where they were trying to move a casualty. This must have been room 14²⁸⁷⁷. The instructions changed in that they were told not to remove any casualties from their rooms. Instead they were to ventilate rooms, which they did²⁸⁷⁸. Mr Nelson was able say was that he did not think that any of the 7 casualties he saw in corridor 4 were alive²⁸⁷⁹.

303. As far as Mr Nelson was aware, BA team 5 was the last team to leave the building²⁸⁸⁰.

Conclusion of operations

304. None of the appliances which were mobilized as a response to the message make Pumps 6 played any active part in the firefighting and search and rescue operations undertaken at Rosepark Care Home which, for all practical purposes, had concluded by the time of their arrival.

305. However, it was intended, at least by Sub Officer Alastair Ross who was to assume charge of the sector at the far end of the building (ie. the fire exit at the stairwell leading to corridor 4b), that they commit BA crews to the building²⁸⁸¹. Mr Ross established BA entry control at the west end of the building with that intention in mind and spoke to the officers in charge of the two additional appliances when they arrived²⁸⁸².

306. At about the same time he ascended the stairwell and entered corridor 4. The smoke had cleared considerably. Mr Ross was able to walk along the corridor with the assistance of a torch and without BA. He shouted on a BA crew and received confirmation that the fire had been extinguished²⁸⁸³. He met BA team 5 in room 14.

²⁸⁷⁷ Alastair Ross, 14 December 2010, am, pp83-84;

²⁸⁷⁸ Paul Nelson, 15 December 2010, am, pp137-137;

²⁸⁷⁹ Paul Nelson, 15 December 2009, am, pp135-136;

²⁸⁸⁰ Paul Nelson, 15 December 2010, am, p144;

²⁸⁸¹ Alastair Ross, 14 December 2010, am, p59;

²⁸⁸² Pages 61-70, Afternoon Session, Monday 14 December 2009;

²⁸⁸³ Alastair Ross, 14 December 2010, am, pp78-81;

He thought (wrongly) that they had come up the new entry point at the west of the building²⁸⁸⁴

307. Mr Ross returned to the front of the building and reported to ADO Atkinson that there were fatalities in the building. Mr Atkinson instructed that they should be left *in situ*²⁸⁸⁵.

308. When Mr Ross returned to the main entrance to report to ADO Atkinson there were two BA teams from the fifth and sixth appliances ready to deploy. They were told to stand by²⁸⁸⁶.

309. Mr Ross returned to the new entry control point. He met a paramedic who asked to see the suspected fatalities. Mr Ross took him up to corridor 4. The paramedic then confirmed that the residents in the corridor were all dead²⁸⁸⁷.

Casualty Treatment

310. Ross French was the designated BA entry control officer onboard E012²⁸⁸⁸.

311. On arrival at the main entrance to Rosepark Mr French assisted Leading Firefighter McDiarmid to pull the hose reel from the appliance through the foyer²⁸⁸⁹. He then left the building and set up the BA entry control board. The Board, along with the tallies of those who had been deployed had been left out by the driver of E012²⁸⁹⁰.

312. Normally, the BA entry control officer would remain at the BA entry control board. On this occasion Mr French and Mr McDiarmid saw that casualties were

²⁸⁸⁴ Alastair Ross, 14 December 2010, am, pp82-84;

²⁸⁸⁵ Alastair Ross, 14 December 2010, am, pp85-87;

²⁸⁸⁶ Alastair Ross, 14 December 2010, am, pp87-88;

²⁸⁸⁷ Alastair Ross, 14 December 2010, am, pp88-89;

²⁸⁸⁸ Ross French, 15 December 2010, am, p35;

²⁸⁸⁹ Ross French, 15 December 2010, am, pp39-40;

²⁸⁹⁰ Ross French, 15 December 2010, am, p47;

being brought out. They decided that it was more of a priority to render assistance because they thought that the BA crews had about 45 minutes worth of air²⁸⁹¹. Mr French accompanied Mr McDiarmid into the Rose Lounge carrying a trauma kit which enabled him to supply oxygen to casualties there pending the arrival of paramedics. Mr French rendered first aid assistance to casualties in the Rose Lounge until paramedics arrived and took control²⁸⁹²

313. John Devine, the designated BA entry control officer for E011²⁸⁹³, also ended up undertaking first aid duties rather than BA entry control²⁸⁹⁴. Mr Devine passed the tallys for BA team 3 (Campbell and O'Dowd) to Mr French and treated casualties on the instructions of Sub-Officer Ross²⁸⁹⁵.

314. Leading Fire Fighter McDiarmid also provided first aid assistance in the Rose Lounge. Mr McDiarmid arranged for the administration of oxygen to the first casualty to be removed from corridor 3, Isabella McLachlan²⁸⁹⁶. Mr McDiarmid also gave (unchallenged) evidence that all of the casualties who were brought to the Rose Lounge were immediately provided with oxygen; two resuscitators were used from fire appliances before paramedics arrived with their own oxygen supplies²⁸⁹⁷.

315. Kenneth Frame, who was part of the Hamilton crew bearing callsign HAM507²⁸⁹⁸, treated Isabella McLachlan. He confirmed that, when he arrived at Rosepark, Mrs MacLachlan was already being administered oxygen²⁸⁹⁹. Mrs McLachlan was treated with salbutamol, a solution that is used along with oxygen, both before and during the ambulance transfer to Wishaw General Hospital²⁹⁰⁰;

²⁸⁹¹ Ross French, 15 December 2010, am, pp48-49;

²⁸⁹² Ross French, 15 December 2010, am, pp54-57;

²⁸⁹³ John Devine, 15 December 2010, am, p81

²⁸⁹⁴ John Devine, 15 December 2010, am, p86;

²⁸⁹⁵ John Devine, 15 December 2010, am, pp87-88;

²⁸⁹⁶ Pages 77, 79-82, Morning Session, Thursday 10 December 2009;

²⁸⁹⁷ Pages 100-103, Morning Session, Thursday 10 December 2009;

²⁸⁹⁸ Page 38, Morning Session, Wednesday 16 December 2009;

²⁸⁹⁹ Pages 45- 51, Morning Session, Wednesday 16 December 2009; Production 558, pages 15, 49 (manuscript); Joint Minute, part 1, paragraph 86;

²⁹⁰⁰ Pages 51-54, Morning Session, Wednesday 16 December 2009;

316. In a medical report dated 14 September 2009 Dr RW Crofton, Consultant Physician, recorded that, on arrival at the Casualty Department of Wishaw General Hospital, Mrs McLachlan had an oxygen saturation of 100%²⁹⁰¹;

317. Paramedic Gary Grierson, along with Paramedic Neil Mitchell, formed the first ambulance crew on the scene. Mr Grierson confirmed that those residents who were brought to the Rose Lounge suffering from breathing difficulties were administered oxygen either by the ambulance crew or members of the Fire Service²⁹⁰². Mr Grierson also made specific mention of a patient who was brought to him. The patient was not breathing and required to be intubated. Mr Grierson used a bag and mask to apply oxygen until the Hamilton ambulance crew was available to take her to hospital²⁹⁰³. It is apparent that this was Margaret Gow, (since it was she who was taken to Monklands by the Hamilton crew, call sign HAM508) and that she remained on oxygen all the way to hospital²⁹⁰⁴;

318. Neil Mitchell confirmed that oxygen was administered to residents by both Fire Service personnel and police and paramedics, including (by inference from the fact that she was handed over to the Hamilton ambulance crew) Margaret Gow²⁹⁰⁵.

319. In an undated medical report comprising production 1726 Carol Murdoch, Consultant in Anaesthesia and Intensive Care, recorded that on arrival at Monklands Hospital Margaret Gow was breathing via an endotracheal tube but was well oxygenated. The report further records that, on her early transfer to Stobhill Hospital Intensive Care Unit, Margaret Gow remained fully ventilated²⁹⁰⁶.

²⁹⁰¹ Production 1721; Joint Minute, part 1, paragraph 88;

²⁹⁰² Pages 32-34, Morning Session, Wednesday 16 December 2009; the police statement adopted by Mr Grierson in that passage is relied on by Professor Purser in his revised report, appendix B, at page 65;

²⁹⁰³ Pages 33-34, Morning Session, Wednesday 16 December 2009;

²⁹⁰⁴ Evidence of Christopher Aitchison, Paramedic, Pages 87-88, 94-101, Morning Session, Wednesday 16 December 2009; Production 509, Ambulance Service Log, page 4 of 31;

²⁹⁰⁵ Pages 74-77, Afternoon Session, Tuesday 15 December 2009;

²⁹⁰⁶ Production 1726; Joint Minute, part 1, paragraph 55; see also Production 358, medical records, page 113 (manuscript); Joint Minute, part 1, paragraph 53;

320. Ambulance Technician James Inglis, with his colleague Kenny Millar, formed the crew of the Motherwell ambulance MOT503²⁹⁰⁷. They treated Isabella MacLeod. She was unresponsive and was not breathing spontaneously. The crew carried out CPR and ventilated her, and this treatment was continued until they arrived at Monklands Hospital at 0548 hours²⁹⁰⁸.

321. Mr Mitchell also intubated another elderly female patient who was not breathing but had a pulse. Since the patient concerned was, according to Mr Mitchell, taken to Monklands Hospital by the Motherwell crew one may conclude that he also was describing treatment administered to Isabella MacLeod²⁹⁰⁹.

322. In an undated medical report comprising production 1727 Carol Murdoch, Consultant in Anaesthesia and Intensive Care, recorded that on arrival at Monklands Hospital Accident & Emergency Department Isabella MacLeod had been intubated and ventilated, that ventilation had continued, and that on her transfer to Stobhill Hospital at about 1630 hours on 31 January 2004 she was fully ventilated and well oxygenated²⁹¹⁰.

323. Paramedic Ross Munro, a member of the crew of GGE424, treated Jessie Hadcroft in the Rose Lounge after his arrival. The patient was already wearing an oxygen mask when he attended to her. He administered salbutamol via a nebulisation unit²⁹¹¹.

²⁹⁰⁷ James Inglis, 16 December 2009, am, p2;

²⁹⁰⁸ James Inglis, 16 December 2009, am, pp6-28;

²⁹⁰⁹ Pages 90-91, Afternoon Session, Tuesday 15 December 2009; the police statement adopted by Mr Mitchell in this and the previous passage of evidence is relied on by Professor Purser in his revised report, appendix B, at pages 65-66; see also Production 509, Ambulance Service Log, page 4 of 31; Production 359, page 25, Scottish Ambulance Service Patient Report Form; Joint Minute, part 1, paragraph 92;

²⁹¹⁰ Production 1727; Joint Minute, part 1, paragraph 101;

²⁹¹¹ Pages 110-119, Morning Session, Wednesday 16 December 2009;

324. In a medical report dated 16 September 2009, production 1716, Professor David Stott recorded that, on arrival at the Glasgow Royal Infirmary, Mrs Hadcroft was on high flow oxygen (100%)²⁹¹².

325. Ross Munro was part of the crew that also treated Jean Paterson. He identified her Scottish Ambulance Service Patient Report Form as recording the treatment given to her. That form specified that Jean Paterson had been administered oxygen²⁹¹³.

326. In a medical report dated 15 September 2009, production 1715, Jennifer Burns, Consultant Physician, confirmed that, when she arrived at Glasgow Royal Infirmary, Jean Paterson had an initial oxygen saturation of 99% on air, and that she was continued on oxygen therapy²⁹¹⁴.

327. Kenneth Frame was part of the crew of ambulance HAM507 who treated Richard Russell and took him, along with Mrs McLachlan, to Wishaw General Hospital. Mr Russell was in a wheelchair and was suffering from smoke inhalation. He was treated with oxygen and a nebuliser²⁹¹⁵;

328. In an undated medical report, production 1705, Dr J McCallion, Consultant Geriatrician, confirmed that on admission as an emergency to Wishaw General Hospital Richard Russell had oxygen saturations of 99% on 6 litres of oxygen²⁹¹⁶.

329. Firefighter John Devine spoke specifically to the last casualty to arrive in the Rose Lounge, Robina Burns, receiving oxygen prior to being removed by stretcher to an ambulance by paramedics²⁹¹⁷;

²⁹¹² Production 1716; Joint Minute, part 1, paragraph 176;

²⁹¹³ Pages 127-129, Morning Session, Wednesday 16 December 2009; Production 949, page 56 (manuscript) – Patient Report Form; Joint Minute, part 1, paragraph 182;

²⁹¹⁴ Production 1715; Joint Minute, part 1, paragraph 184;

²⁹¹⁵ Pages 60-63, Morning Session, Wednesday 16 December 2009;

²⁹¹⁶ Production 1705; Joint Minute, part 1, paragraph 160; see also Patient Report Form in Production 948, page 8 (manuscript); Joint Minute, part 1, paragraph 158;

²⁹¹⁷ Pages 93-94, Morning Session, Tuesday 15 December 2009;

330. Ambulance Technician Thomas Lowrie, crewing the ambulance KRK434, confirmed that he secured the airway of, and administered oxygen to, a patient whom he later learned to be Robina Burns. They took her straight to the ambulance and conveyed her to Glasgow Royal Infirmary. In as much as he initially thought that the patient had not been on oxygen when he first attended, Mr Lowrie accepted that he could have taken over from a fire officer and would have had to replace any oxygen mask then in use with the one from the ambulance²⁹¹⁸;

331. In a medical report dated 18 September 2009, production 1714, Professor Peter Langhorne recorded that, following her arrival at Glasgow Royal Infirmary, Mrs Burns continued to be treated with oxygen²⁹¹⁹.

Note to Chapter 28

I have carefully considered the proposed draft findings in fact by the Crown and the responses on behalf of SF&R, the Care Commission, North Lanarkshire Council and George Muir. As a result of these submissions I have made substantial alterations to the findings in fact proposed by the Crown. I have given effect to the submissions which I have accepted in Chapter 28.

I have incorporated the point made on behalf of George Muir at paragraph 110.

²⁹¹⁸ Pages 70-81, Morning Session, Wednesday 16 December 2009;

²⁹¹⁹ Production 1714; Joint Minute, part 1, paragraph 13;

CHAPTER 29: THE POSITION OF BEDROOM DOORS ON THE NIGHT OF THE FIRE

In RS3.2 of my findings, as explained in Chapter 44(3)(B) I determined that it would have been a reasonable precaution for all bedroom doors to have been closed in the event that the fire alarm sounded, and that if such a precaution had been taken the deaths, or some of them, might have been avoided.

The purpose of this chapter is to set out my findings of fact in relation to that conclusion.

Findings:

On the night of the fire the positions of the bedroom doors in corridors s and 4 were as follows:

- (i) Room 4 was closed**
- (ii) Room 5 was partially open**
- (iii) Room 6 was Partially open**
- (iv) Room 9 was slightly open**
- (v) Room 10 was closed**
- (vi) Room 11 was closed**
- (vii) Room 12 was open**
- (viii) Room 13 was open**
- (ix) Room 14 was open**
- (x) Room 15 was open**
- (xi) Room 16 was open**
- (xii) Room 17 was open**
- (xiii) Room 18 was open**
- (xiv) Room 19 was partially open**

Introduction

Evidence about the positions of the bedroom doors at night in corridors 3 and 4 comes from the following sources:

1. The evidence of Brigid Boyle concerning the practice at Rosepark relating to bedroom doors;
2. The evidence of Sarah Meaney concerning the practice at Rosepark relating to bedroom doors;
3. The evidence of other employees concerning the practice at Rosepark relating to bedroom doors;
4. The evidence of relatives of the deceased residents concerning those residents' preferences about how their doors were to be left at night;
5. The evidence of certain members of the staff on night shift on the night of the fire about the positions of the doors on the night of the fire;
6. The evidence of Fire Brigade personnel involved in the operation at Rosepark;
7. The findings of Professor David Purser in respect of the residents of corridor 3.
8. The photographic and scene examination evidence from the fire investigation .

1. The evidence of Brigid Boyle regarding practice within Rosepark

1. Brigid Boyle was matron at Rosepark between 1992 and 1997²⁹²⁰ .
2. At nights there were occasions when residents wished their doors to be kept open²⁹²¹ .

²⁹²⁰ Brigid Boyle, 16 February 2010, am, pp3-4;

3. If a resident wanted the door left open it would be left open²⁹²².
4. When Brigid Boyle was matron there were bedroom doors from which door closers had been removed. Some of the residents could not open the doors themselves and would have to buzz for assistance²⁹²³.

2. The evidence of Sarah Meaney regarding practice within Rosepark

1. Sarah Meaney became matron of Rosepark in December 1998²⁹²⁴;
2. The normal procedure would be to close the bedroom door unless the resident particularly requested it to be left open²⁹²⁵;
3. Ms Meaney understood that there were safety reasons why bedroom doors should be closed²⁹²⁶;
4. If a nurse on duty thought it appropriate to leave a door open in a particular case then that is what she would do²⁹²⁷
5. Staff at night may have left the bedroom doors of higher risk residents open so that they could check on them²⁹²⁸;
6. The pros and cons of leaving bedroom doors open at night was never the subject of discussion between Miss Meaney and the night staff²⁹²⁹;

²⁹²¹ Brigid Boyle, 16 February 2010, am, p21;

²⁹²² Brigid Boyle, 16 February 2010, am, p22;

²⁹²³ Brigid Boyle, 16 February 2010, am, p22;

²⁹²⁴ Sarah Meaney, 18 February 2010, am, p59;

²⁹²⁵ Sarah Meaney, 18 February 2010, am, pp126-127;

²⁹²⁶ Sarah Meaney, 18 February 2010, am, p127;

²⁹²⁷ Sarah Meaney, 18 February 2010, am, p128;

²⁹²⁸ Sarah Meaney, 18 February 2010, am, pp130-132;

²⁹²⁹ Sarah Meaney, 18 February 2010, am, p131;

7. The nurse in charge of the night shift would ultimately decide what procedure would be followed regarding the bedroom doors, so the position would not always be the same²⁹³⁰.

3. Practice at Rosepark

As to the practice of leaving bedroom doors open at night, and the management's awareness of that practice, reference is made to chapter 15.

4. Evidence of the Preferences of Individual Residents

Evidence in respect of certain of the residents in corridors 3 and 4 who died during, or subsequent to, the fire was given as follows:

1. The preference of Annie Thomson (room 14) would have been for her door to be left open. Mrs Thomson liked to see what was going on outside and, when visited, she would ask that her door be left open²⁹³¹;

2. The preference of Helen (Ella) Crawford would probably also have been for her door to be left open. Although she had never visited last thing at night, Mrs Crawford's daughter, Mrs Bulloch, thought that her mother would still have wanted her door to be open. If open, the door to room 14 was held open with a wedge²⁹³²;

3. The preference of Margaret Lappin (room 12) would have been for her door to be left open. Mrs Lappin's son, John Lappin, would leave her door open on conclusion of a visit. That was Mrs Lappin's preference²⁹³³;

4. Margaret Dorothy (Dora) McWee (room 15) insisted that her bedroom door be left open if she was alone in her room. She suffered from a condition known as Charles Bonnet Syndrome. This caused Mrs McWee to suffer from hallucinations which caused her to see figures approaching her. Prior to Mrs McWee taking up

²⁹³⁰ Sarah Meaney, 18 February 2010, am, p131;

²⁹³¹ Madeleine Asken, 16 November 2009, am, pp20-21;

²⁹³² Janette Bulloch, 16 November 2009, am, p35;

²⁹³³ John Lappin, 16 November 2009, am, pp48-49;

residence at Rosepark her daughter, Miss Agnes McWee, prepared a detailed written list of instructions relating to her mother. Those instructions included reference to Mrs McWee's need to have her bedroom door kept open. The door to room 15 was heavy and required a wedge to keep it open. The door did not have to be fully open, but it had to be wedged sufficiently far open to allow Mrs McWee to be able to tell that the door was open²⁹³⁴;

5. Isobel Caskie, the daughter of Isabella MacLachlan (room 20), thought that her mother would not have managed to open the door on her own if she needed to get up in the night. For that reason, Mrs Caskie thought that the bedroom door may have been wedged open²⁹³⁵;

6. Initially Robina Burns (room 10) had liked to sleep with her bedroom door open. However, there had been occasions when other residents had wandered into her bedroom at night. At the time of the fire Mrs Burns preferred to sleep with the bedroom door closed²⁹³⁶;

7. The nephew of Julia McRoberts (room 9), Patrick McGuire, thought that his aunt would have preferred her bedroom door to be left open because this was the way she had her bedroom door at home. When he left after a visit Mr McGuire would leave the door partially open. He thought (but was not sure) that a wedge was required to keep the door open²⁹³⁷;

8. Thomas Cook (room 16) always wanted his bedroom door to be shut. In his previous care home Mr Cook had been allowed to lock his own door. While this had initially been permitted at Rosepark, Mr Cook's friend and neighbour, Gail Stewart, stated that she was told after about one week that this could not continue for reasons of safety. Mrs Stewart was aware that, on occasions, staff at Rosepark would wedge

²⁹³⁴ Agnes McWee, 16 November 2009, am, pp74-78;

²⁹³⁵ Isobel Caskie, 16 November 2009, pm, pp39-40;

²⁹³⁶ Agnes Crawford, 16 November 2009, pm, p58;

²⁹³⁷ Patrick McGuire, 17 November 2009, am, pp10-11;

Mr Cook's door open. When she visited, however, Mrs Stewart would always, at Mr Cook's request, close the bedroom door²⁹³⁸;

9. According to her grand-daughter, Deborah Milne, Ellen (Helen) Milne (room 13) would probably have preferred her bedroom door to be closed. If, however, the other resident in room 13 had wanted to door open then Ellen (Helen) Milne would probably have agreed to that²⁹³⁹;

10. Helen Carpenter, the daughter of Annie (Nan) Stirrat (room 9), did not recall any discussion with staff at Rosepark about whether her mother's bedroom door should remain open or shut. Her recollection from visiting Rosepark was that all of the bedroom doors would be held open with wedges, as would the fire doors in the corridors²⁹⁴⁰

5. Evidence of Back and Night shift Members of Staff

Tracey Farrer

Miss Farrer was asked whether there existed any practice about whether or not bedroom doors would be left open at night. Her evidence was to the following effect:

1. The staff usually closed the doors.
2. There were a couple of residents who, she thought, asked for their door to be left open;
3. One of those who asked for her door to be left open was someone Miss Farrer knew as Bina Burns. (If Miss Farrer's recollection related to the time of the fire she was almost certainly incorrect);
4. Richard Russell liked his door to be wedged open just slightly; if it was not quite right he would shout on staff to open it slightly more²⁹⁴¹

²⁹³⁸ Gail Stewart, 16 November 2009, pm, pp16-19;

²⁹³⁹ Deborah Milne, 16 November 2009, am, p136;

²⁹⁴⁰ Helen Carpenter, 16 November 2009, pm, pp5-7;

²⁹⁴¹ Tracey Farrer, 24 November 2009, am, pp122-125;

Yvonne Carlyle

Miss Carlyle was asked directly whether residents had their bedroom doors open or closed on the night of the fire. Her recollection may be summarized as follows:

1. Julia McRoberts always liked her door to be open so her door would have been open;
2. Richard Russell (room 6) always had his bedroom door open;
3. Robina Burns liked to have her bedroom door closed;
4. Thomas Cook liked to have his bedroom door closed. On the night of the fire, however, she recalled seeing that Mr Cook's door was actually open;
5. Mary Dick usually had her door closed;
6. Isabella MacLeod (room 11) liked to have her bedroom door closed²⁹⁴².

Irene Richmond

Mrs Richmond's recollection of the position regarding bedroom doors in corridors 3 and 4 on the night of the fire (under reference to an undated statement to the police, the terms of which she accepted) was as follows:

1. Richard Russell (room 6) liked his door to be open sufficiently far for a nurse to fit through the gap;
2. Margaret Dorothy (Dora) McWee (room 15) liked to have her bedroom door open;
3. The bedroom door to room 13 (Mary McKenner and Ellen (Helen) Milne) would have been open;

²⁹⁴² Yvonne Carlyle, 27 November 2009, am, pp52-55;

4. The bedroom door to room 14 (Helen (Ella) Crawford and Annie Thomson) would have been open;
5. The bedroom door to room 12 (Margaret Lappin) would have been open;
6. The bedroom door to room 9 (Julia McRoberts and Annie (Nan) Stirrat) would have been open;
7. It was possible that the doors to rooms 16, 17, 18 and 20 would also have been open.²⁹⁴³

Isobel Queen

Miss Queen's recollection of the position regarding bedroom doors in corridors 3 and 4 on the night of the fire (under reference to her police statement of 1st February 2004, the terms of which she accepted) was as follows:

1. Richard Russell insisted that his door was wedged open;
2. The bedroom door to room 9 (Julia McRoberts and Annie (Nan) Stirrat) was always open;
3. Margaret Lappin (room 12) left her door open;
4. Ms Queen was uncertain about the position of the door to room 14 (Annie Thomson and Helen (Ella) Crawford);
5. Margaret Dorothy (Dora) McWee (room 15) would leave her door open;
6. The door to room 16 (Thomas Cook) could have been open or shut because Mr Cook was a wanderer;

²⁹⁴³ Irene Richmond, 1 December 2009, am, pp144-149;

7. The door to room 18 (Margaret Gow) would be open;
8. Ms Queen thought that the door to room 19 (Jessie Hadcroft) would have been open, but she could not recall precisely;
9. Isabella MacLachlan's door (room 20) would definitely have been open²⁹⁴⁴

6. Evidence of Fire Brigade Personnel

- i. The conditions in the corridors 3 and 4 inevitably have a bearing on the reliability of the evidence of firefighters about the positions of bedroom doors in corridors 3 and 4. That evidence does, however, support the following conclusions.
 - ii. The door to room 11 was closed and burnt²⁹⁴⁵.
 - iii. The door to room 10 was closed²⁹⁴⁶.
 - iv. The conditions in room 12 were not such as one would have expected if the door had been fully closed²⁹⁴⁷. One can infer that it was open.
 - v. The visibility in room 13 was the same as in the corridor. Had the door been fully closed there would have been a difference²⁹⁴⁸. One can infer that it was open.
 - vi. The door to room 16 was open²⁹⁴⁹
 - vii. The door to room 4 was closed²⁹⁵⁰

²⁹⁴⁴ See generally, Isobel Queen, 2 December 2009, pm, pp74-80;

²⁹⁴⁵ James Clark, 9 December 2010, am, p84;

²⁹⁴⁶ Gordon Hector, 14 December 2010, p62;

²⁹⁴⁷ James Clark, 9 December 2009, am, p80;

²⁹⁴⁸ James Clark, 9 December 2009, am, p71;

²⁹⁴⁹ David Buick, 7 December 2009, pm, pp6-7;

²⁹⁵⁰ David Buick, 7 December 2009, am, p90;

7. Evidence of Professor Purser: Residents in rooms off corridor 3

1. The severity of smoke inhalation is best estimated by measuring the blood carboxyhaemoglobin²⁹⁵¹. In terms of outcome a carboxyhaemoglobin level in excess of 10% indicates that there has been smoke inhalation. A level of 20% indicates severe smoke inhalation²⁹⁵². However, the chances of survival of an incident of smoke inhalation resulting in a carboxyhaemoglobin level up to, but not exceeding, 40% are high²⁹⁵³. A level in excess of 40% presents a much higher risk, and a level in excess of 50% presents a very high risk of mortality²⁹⁵⁴.

2. Professor Purser prepared carboxyhaemoglobin concentrations for the residents in corridor 3, back calculated from hospital data. The results of his calculations were set out in Table 5 of his report amended to June 10th June 2010, production 2053²⁹⁵⁵.

3. The back calculation for Margaret Gow was 44%-53% carboxyhaemoglobin.

4. The back calculation for Isabella MacLachlan was 42%-55% carboxyhaemoglobin.

5. The back calculation for Jean Paterson was 29%-32% carboxyhaemoglobin.

6. The back calculation for Richard Russell was 35%-38% carboxyhaemoglobin.

7. The back calculation for Jessie Hadcroft was 38%-41% carboxyhaemoglobin.

8. The sixth resident in corridor 3, Mary Dick, was essentially uninjured and required no hospital treatment²⁹⁵⁶. This lends support to the findings of the forensic evidence to the effect that the door to room 4 was closed on the night of the fire.

²⁹⁵¹ John Kinsella, 21 June 2010, am, p45; Production 1782, p8;

²⁹⁵² John Kinsella, 21 June 2010, am, p46; Production 1782, p8;

²⁹⁵³ David Purser, 14 June 2010, pm, p84;

²⁹⁵⁴ John Kinsella, 21 June 2010, am, pp35-39;

²⁹⁵⁵ Production 2053, p28;

²⁹⁵⁶ Joint Minute, part 1, paragraph 163;

Professor Purser proceeded on that basis. It is submitted that it was entirely reasonable for him to do so.

9. According to Professor Purser the results of the back calculations on the 5 residents from corridor 3 just mentioned show that the 3 who survived (Jean Paterson, Richard Russell, and Jessie Hadcroft) must have been better protected from the fire gases in corridor 3 than were Margaret Gow and Isabella MacLachlan.²⁹⁵⁷

10. Professor Purser concluded that there must have been some barrier between them and the fire gases in the corridor. However, they cannot have been completely closed rooms because then they would have had very low concentrations of carboxyhaemoglobin, perhaps as low as 12%²⁹⁵⁸.

11. Accordingly Jean Paterson, Richard Russell and Jessie Hadcroft must have had a degree of exposure to smoke and asphyxiant gases²⁹⁵⁹.

12. The %COHb levels for each of Jean Paterson, Richard Russell and Jessie Hadcroft were lower than those for Margaret Gow and Isabella MacLachlan²⁹⁶⁰.

13. In a closed room in corridor 3 the level of exposure to smoke and asphyxiant gases is likely to have been minimal, as was the case with Mary Dick²⁹⁶¹.

14. A closed room occupant off corridor 3, who had to pass through the smoke in corridor 3 while being rescued might have achieved a %COHb concentration of about 12%, while an open room occupant would have achieved a level of around 44% under the conditions thought by Professor Purser to have subsisted in corridor 3 during the incident²⁹⁶².

²⁹⁵⁷ David Purser, 15 June 2010, am, pp81-82;

²⁹⁵⁸ David Purser, 15 June 2010, am, pp82-83;

²⁹⁵⁹ David Purser, 15 June 2010, am, pp83-84;

²⁹⁶⁰ David Purser, 15 June 2010, am, pp83-84;

²⁹⁶¹ David Purser, 15 June 2010, am, p88;

²⁹⁶² David Purser, 15 June 2010, am, p88; Production 2053, p42;

15. On that basis Jean Paterson's room door must have been at least partly open²⁹⁶³.
16. Standing her %COHb level Jessie Hadcroft's door must have been partially open, or open for a significant part of the time in the incident²⁹⁶⁴. She was said to have been black with soot²⁹⁶⁵ which itself was an indication that she had been exposed to smoke and asphyxiant gases²⁹⁶⁶.
17. As with Jean Paterson and Jessie Hadcroft, Richard Russell's %COHb level was much too high for his room door to have been completely closed throughout the fire, but lower than would be expected if it had been fully open throughout²⁹⁶⁷.
18. It is likely that the smoke and carbon monoxide levels in room 4, which was known to be closed, would have been of the order of 12% COHb – the level of a heavy smoker²⁹⁶⁸. The blood %COHb levels for Jean Paterson, Richard Russell and Jessie Hadcroft were considerably in excess of those predicted had the room doors been closed. Accordingly, in Professor Purser's opinion, the doors for Jean Paterson, Richard Russell and Jessie Hadcroft had their doors partly open at the time of rescue²⁹⁶⁹.

8. Photographic and scene examination evidence from the fire investigation

Photographic Evidence of Jill Cummings

1. After the fire, inspection of bedroom doors revealed that some bedroom doors were not fitted with door closers and that some door closers had been disabled. On 10th February 2004 Jill Cummings, a scene examiner with Strathclyde Police took the photographs contained in production 860 with the following results:

²⁹⁶³ David Purser, 15 June 2010, am, p88; Production 2053, p42;

²⁹⁶⁴ David Purser, 15 June 2010, am, p43;

²⁹⁶⁵ Ross Munro, 15 December 2010, am, pp115-117;

²⁹⁶⁶ David Purser, 15 December 2010, am, p90;

²⁹⁶⁷ David Purser, 15 December 2010, am, p92; Production 2053, p44;

²⁹⁶⁸ David Purser, 15 December 2010, am, p95; Production 2053, p28, Table 5;

²⁹⁶⁹ David Purser, 15 December 2010, am, p93; Production 2053, pp44-45;

- The door to room 22 in corridor 1 had no door closer fitted but a line of three holes internally at the top²⁹⁷⁰;
- The door to room 23 on the lower level had no door closer fitted but a line of three holes internally at the top²⁹⁷¹;
- The door to room 24 on the lower level had a door closer unit fitted to the door but no connecting arm²⁹⁷²;
- The door to room 25 on the lower level had no door closer fitted but a line of three holes internally at the top²⁹⁷³;
- The door to room 27 on the lower level had no door closer fitted but a line of three holes internally at the top²⁹⁷⁴;
- The door to room 29 on the lower level had a door closer unit fitted but there was no sign of an arm²⁹⁷⁵;
- The door to room 30 on the lower level had no door closer fitted but a line of three holes internally at the top²⁹⁷⁶;
- The door to room 33 on the lower level had no door closer fitted but a line of three holes internally at the top²⁹⁷⁷;
- The door to room 37 had no door closer fitted and no holes internally at the top²⁹⁷⁸;

²⁹⁷⁰ Jill Cummings, 18 November 2009, pm, p43, production 860A;

²⁹⁷¹ Jill Cummings, 18 November 2009, pm, p52, production 860M;

²⁹⁷² Jill Cummings, 18 November 2009, pm, p51, production 860L;

²⁹⁷³ Jill Cummings, 18 November 2009, pm, p49, production 860I;

²⁹⁷⁴ Jill Cummings, 18 November 2009, pm, pp48-49, production 860H;

²⁹⁷⁵ Jill Cummings, 18 November 2009, pm, pp46-47, production 860F;

²⁹⁷⁶ Jill Cummings, 18 November 2009, pm, p48, production 860G;

²⁹⁷⁷ Jill Cummings, 18 November 2009, pm, pp50-51, production 860K;

- The door to room 5 in corridor 3 had a door closer unit fitted to the door but no connecting arm²⁹⁷⁹;
- The door to room 9 in corridor 4 had no door closer fitted but a line of three holes internally at the top²⁹⁸⁰;
- The door to room 13 had a door closer unit fitted and a connecting arm was visible but not connected²⁹⁸¹;
- The door to room 14 had a door closer unit fitted and a connecting arm was again visible but apparently not connected²⁹⁸².

Photographic Evidence of David Thurley

2. David Thurley took a series of photographs on 2nd and 3rd February in his capacity as a Scene Examiner with Strathclyde Police. His photographic record is important in respect that it recorded certain patterns of damage which were then interpreted by the Forensic Scientists in offering their opinion as to whether particular bedroom doors were open at the time of the fire. The salient points of his evidence may be stated as follows:

3. Room 4

Production 331 contains photographs of light dusting of soot and *inter alia* a functioning door closer²⁹⁸³.

²⁹⁷⁸ Jill Cummings, 18 November 2009, pm, pp49-50, production 860J;

²⁹⁷⁹ Jill Cummings, 18 November 2009, pm, pp43-44, production 860B;

²⁹⁸⁰ Jill Cummings, 18 November 2009, pm, pp44-45, production 860C;

²⁹⁸¹ Jill Cummings, 18 November 2009, pm, pp45-46, production 860E

²⁹⁸² Jill Cummings, 18 November 2009, pm, p45, production 860D;

²⁹⁸³ David Thurley, 17 November 2009, pm, pp46-49;

4. **Room 5**

Production 326 contains photographs of a heavier level of soot dusting than in room 4 and *inter alia* a door closer fitted to the top of the bedroom door but not apparently functional²⁹⁸⁴.

5. **Room 6**

Productions 326 and 329 contain photographs of heavier soot deposits than in room 5 and *inter alia* a functioning door closer²⁹⁸⁵

6. **Room 20**

Production 330 contains photographs of discoloration and soot deposits internal to the room. Production 324 contains photographs (particularly 324A, 324B and 324C) showing the appearance of contrast in colours on the carpet just beyond, and inside, the brass plate across the door threshold²⁹⁸⁶.

7. **Room 19**

Production 327 contains photographs of soot deposits, albeit not particularly heavy in room 19 and, apparently, a working door closer and wedge. Discoloration is visible within the room above the door, moving up towards the ceiling²⁹⁸⁷.

8. **Room 18**

Production 325 contains photographs showing a heavily stained external door and door frame, heavy soot staining internally, and an apparently connected door closer²⁹⁸⁸.

²⁹⁸⁴ David Thurley, 17 November 2009, pm, pp49-54;

²⁹⁸⁵ David Thurley, 17 November 2009, pm, pp54-61;

²⁹⁸⁶ David Thurley, 17 November 2009, pm, pp69-74;

²⁹⁸⁷ David Thurley, 17 November 2009, pm, pp65-69;

²⁹⁸⁸ David Thurley, 17 November 2009, pm, pp62-65;

9. **Room 17**

Production 341 contained photographs showing the external face of the bedroom door with fire damage describing an angular pattern, angular patterns of damage to the walls internal to the door, and heat damage to windows, ceiling and internal fittings²⁹⁸⁹.

10. **Room 16**

Production 349 contained photographs showing the external face of the bedroom door describing an upward angular pattern from right to left. The interior views of the door show an angular pattern of heat and smoke damage to the walls and ceiling and damage to windows, ceiling (in both the bedroom and en suite toilet), destruction of internal fittings and a clean patch of carpet in way of the door consistent with the presence of a wedge²⁹⁹⁰. Room 15 was located further away from the dog leg than room 10²⁹⁹¹.

11. **Room 7**

Production 338 contained photographs showing the external face of the bedroom door with fire damage describing an angular pattern and, internally heavy soot deposits, evidence of burning to the carpet, ceiling damage and heat damage to internal fittings²⁹⁹².

12. **Sluice Room**

Production 337 contained photographs showing extensive damage both externally and internally. In the room there was clear evidence of soot staining and debris. Fittings had melted, the artex work on the ceiling had come down and there was heavy soot contamination of tiles and the basin. The pattern of damage on the outside of the door described an obvious angular pattern²⁹⁹³.

²⁹⁸⁹ David Thurley, 18 November 2009, am, pp137-144;

²⁹⁹⁰ David Thurley, 18 November 2009, am, pp86-97;

²⁹⁹¹ David Thurley, 18 November 2009, am, p89;

²⁹⁹² David Thurley, 17 November 2009, pm, pp77-87;

²⁹⁹³ David Thurley, 18 November 2009, am, pp1-8

13. Room 8

Production 339 contained photographs showing significant damage to the door, door frame and surrounding walls from floor to ceiling. The damage to the door described a diagonal pattern. Internally there was shown to be substantial damage with burnt and melted fittings, soot deposits, peeled wallpaper and angular patterned staining on the walls²⁹⁹⁴.

14. Room 9

Production 355 contained photographs showing external damage to the bedroom door and surrounding walls, an angular pattern of blackening and wallpaper peeling on the wall inside the bedroom, heavily blackened and damaged interior (including collapse of the Artex ceiling), and the absence of a door closer²⁹⁹⁵.

15. Room 10

Production 354 contained photographs showing extensive fire damage to the outside face of the door and surrounding walls from floor to ceiling height. Internally, however, there was a covering of soot which was very light compared with other rooms in the area. The photographs showed that the lampshade and curtains were intact and that there appeared to be no evidence of fire or heat damage save to the top third of the internal door frame and wall covering above the door. There was a fitted door closer²⁹⁹⁶.

16. Room 11

Production 353 contained photographs showing extensive damage to the corridor outside the room and a heavily fire damaged door with door closer attached to its remains. The interior of the room looked relatively undamaged compared to the corridor. There was a relatively light covering of soot. There was no evidence of heat

²⁹⁹⁴ David Thurley, 18 November 2009, am, pp12-21;

²⁹⁹⁵ David Thurley, 18 November 2009, am, pp21-30;

²⁹⁹⁶ David Thurley, 18 November 2009, am, pp30-39;

damage save in the area immediately next to the bedroom door, The light fittings, ceiling, walls and curtains were intact²⁹⁹⁷.

17. Room 12

Production 352 contained photographs showing that, externally, the dado rail on the left hand side of the door was more damaged than on the right. The upper part of the door frame and hinged edge of the door were charred or blackened. The interior of the room was substantially more damaged than the interior of room 11. The Artex ceiling appeared to have collapsed in part. There was a heavy deposit of soot. The light shade had partially burnt away. The walls were stained and heat damaged in places. There was cracking to the window pane. The curtain rail had melted and the curtains had collapsed²⁹⁹⁸.

18. Room 13

Production 351 contained photographs showing an angular pattern of damage to the external face of the door. By way of contrast the damage to the fire door at the end of the corridor ran straight across the door rather than at an angle. The damage to the door described a diagonal pattern. Internally heavy smoke damage was visible. It appeared that the curtain rails at the windows had melted and the curtains had collapsed. Heavy soot deposits were visible. There was soot on the carpet. There was a door closer which did not look as if it was connected²⁹⁹⁹.

19. Room 14

Production 350 contained photographs showing an angular pattern of damage to the external face of the door. Internally the walls and ceiling in the area of the door were heavily smoke damaged. Heavy soot staining was visible on the bed. The curtains around the window had come away apparently as a result of the curtain fittings melting. There appeared to be evidence of heat damage to the wardrobes. The lamp shade was heat damaged, particularly on the side closest to the door and there was an

²⁹⁹⁷ David Thurley, 18 November 2009, am, pp39-46;

²⁹⁹⁸ David Thurley, 18 November 2009, am, pp47-56;

²⁹⁹⁹ David Thurley, 18 November 2009, am, pp57-69;

angular pattern of blackening and damage to the walls in the area of the door. There was a door closer fitted to the bedroom door but the arm did not appear to be connected³⁰⁰⁰.

20. Room 15

Production 349 contained photographs showing damage to the external face of the bedroom door. The damage moved upwards in an angular pattern from right to left. Internally the views of the room showed broken windows, heavy soot deposits on floors, window frames and other surfaces, and the en suite toilet area. There appeared to be plaster from the ceiling on the floor. The ceiling in the en suite toilet appeared to be cracked. The plastic vents above the windows had started to melt as had the curtain fittings. The curtains had collapsed to the floor. The light shade was heat damaged. A door closer was fitted. There was a clean patch of carpet near to the door which possibly indicated an area where a door wedge had been in place³⁰⁰¹.

21. Room 47

Production 348 contains photographs showing the external face of the door to the toilet describing an angular pattern of damage and charring at the top, significant damage internally including melted fittings, and smoke and heat damage to the floor³⁰⁰².

22. Room 48

An interesting contrast was provided by production 347 which contains photographs of the door and interior of the shower room, room 48. An angular pattern of damage could not be discerned from the remains of the exterior face of the door. Although the white tiles were heavily discolored, the light fittings were intact, and the ceiling was stained but relatively undamaged. Generally, the shower room was much less damaged than room 47 next door³⁰⁰³.

³⁰⁰⁰ David Thurley, 18 November 2009, am, pp73-86;

³⁰⁰¹ David Thurley, 18 November 2009, am, pp86-97;

³⁰⁰² David Thurley, 18 November 2009, am, pp97-107;

³⁰⁰³ David Thurley, 18 November 2009, am, pp107-120;

David Thurley confirmed that (i) room 7, the sluice room, and rooms 8 and 9 showed substantial evidence of fire damage; (ii) in rooms 10 and 11 there was very little damage; (iii) rooms 12, 13, 14, 15, and 47 showed significant damage, and (iv) room 48, the shower room, was relatively unaffected by fire inside³⁰⁰⁴.

Bedroom Examination by David Robertson and Karen Walker or Clark

23. Mr Robertson has been a Forensic Scientist since 1992. He holds a BSc in chemistry, a Masters in Information Technology and is a member of the Royal Society of Chemistry. Over his career he has attended nearly 200 fire scenes in his capacity as a scene examiner. This has formed his particular specialty during his practice as a Forensic Scientist³⁰⁰⁵.

24. Mrs Clark has been a Forensic Scientist for 16 years. She currently works for the Scottish Police Service Authority. She holds a BSc, and is a chartered chemist and member of the Royal Society of Chemistry. In February 2004 she worked alongside David Robertson during the scene examination following the fire at Rosepark. They subsequently produced reports of their findings³⁰⁰⁶.

25. Part of the investigation undertaken by David Robertson and Karen Clark focused on the bedrooms in corridors 3 and 4. They examined the bedroom doors. It was possible to draw conclusions about whether doors were open or shut at the time of the fire by examining the damage to the doors. At Rosepark the fire developed in the corridor. The spread of the fire was affected by the door positions. Conclusions may be drawn about the position of a door in a fire because the surface of the door will be affected by heat and smoke in a different way depending on whether it was in an open position or closed³⁰⁰⁷.

26. In general, where a room has suffered a greater degree of damage, this will tend to suggest that the door was open in the fire and there was, therefore, no physical

³⁰⁰⁴ David Thurley, 18 November 2009, am, pp121-122;

³⁰⁰⁵ David Robertson, 8 February 2010, pm, pp26-29;

³⁰⁰⁶ David Robertson, 8 February 2010, pm, pp29-31; Karen Clark, 10 February 2010, am, pp136-137;

³⁰⁰⁷ David Robertson, 8 February 2010, pm, pp44-47

barrier to slow down the spread of flame. Similarly evidence of greater smoke ingress into a room points to the door having been open. Closed doors slow down the spread of both fire and smoke³⁰⁰⁸.

27. Normally, there will be more damage within a room located in the vicinity of the fire and whose door has been standing open³⁰⁰⁹

28. Heat will generally affect the upper more than the lower part of a room. If heat has penetrated a room through an open door one would expect to see heat damage at high level. As the temperature rises, combustion can occur within the room. This can happen by direct flames touching combustible materials inside, or by heat rising sufficiently to cause plastic to melt and drip onto flammable materials, or the air temperature can rise sufficiently that anything in the area of the heat will catch fire³⁰¹⁰.

29. David Robertson and Karen Clark inspected the bedrooms in corridors 3 and 4 on 4th February 2004³⁰¹¹.

30. At the Inquiry the evidence about the position of the bedroom doors to these rooms was primarily given by David Robertson. He did so under reference to the photographs taken by David Thurley, the contemporary notes of his inspections (production 1797) and two reports. The first report, production 978, was a locus report prepared jointly by Mr Robertson and Mrs Clark (then Miss Walker) dated 23rd March 2004. The second report, dated 23rd October 2009, production 1795, was in the nature of an update following further consideration of scene examination photographs and the contemporary notes.

³⁰⁰⁸ David Robertson, 8 February 2010, pm, pp51-53;

³⁰⁰⁹ David Robertson, 8 February 2010, pm, pp51-52;

³⁰¹⁰ David Robertson, 8 February 2010, pm, pp53-54;

³⁰¹¹ David Robertson, 8 February 2010, pm, pp54-58;

31. Mrs Clark prepared a second report, production 1796, dated 2nd November 2009 following further consideration of the scene examination photographs and contemporary notes.

32. Subject only to the particular instances noted below, Mrs Clark corroborated the Mr Robertson's conclusions about the positions of the bedroom doors at the time of the fire.

33. The scene examination by Mr Robertson and Mrs Clark concluded that the lowest and most severe damage was outside cupboard A2. In this location the carpet was badly burnt, bedroom doors, walls, and the wooden dado rail nearby were badly charred. Directional burn patterns indicated that cupboard A2 was the location of the fire³⁰¹².

34. The scene examination by Mr Robertson and Mrs Clark also concluded that, in corridor 4, the fire damage gradually decreased in severity the further one moved from cupboard A2. Fire damage was very severe and low level at the turn in the corridor. There was severe and low level fire damage around rooms 9 and 11 (which may be explained by the location of the two foam filled chairs contributing to fuel loading and fire/smoke spread³⁰¹³

35. The scene examination by Mr Robertson and Mrs Clark concluded that, generally, the closer the bedrooms with open doors were to the area of fire origin the lower the hot gas and smoke layer had reached. By contrast Mr Robertson's contemporary notes made no reference to heat horizons in rooms 10 and 11³⁰¹⁴

36. Save as otherwise indicated (in respect of the rooms highlighted in paragraph 16 below), the final conclusions of the Forensic Scientists were in accordance with those expressed in the original locus report, production 978.

³⁰¹² David Robertson, 9 February 2010, am, pp50-3; Production 978, page 15; production 1798, page 65; Production 887X

³⁰¹³ David Robertson, 9 February 2010, am, p53; Production 978, page 15;

³⁰¹⁴ David Robertson, 9 February 2010, am, pp6-7; Production 978, page 10;

37. The original conclusions of the Forensic Scientists, expressed in the locus report (production 978), are as follows:

Open Doors

Room 5: ajar only - door closer not functional;

Room 7: wedged open – room unoccupied;

Room 8: wedged open – room unoccupied;

Room 9: open – door closer not functional;

Room 12: wedged open;

Room 13: open – door closer not functional;

Room 14: open – door closer not functional;

Room 15: wedged open;

Room 16: wedged open;

Room 17: wedged open;

Room 18: wedged open;

Room 20: wedged open;

Closed Doors

Room 4

Room 6

Room 10

Room 11

Room 19³⁰¹⁵

38. The conclusions of the Forensic Scientists on the matter of door positions at the time of the fire were not challenged in cross-examination. The evidence of the Forensic Scientists to the Inquiry relative to relevant room doors is set out as follows:

³⁰¹⁵ Production 978, pp7-8; David Robertson, 9 February 2010, pp142-145;

39. Room 4:

Based on the appearance of the door in the photograph comprising production 332 Mr Robertson concluded that the door to room 4 was closed at the time of the fire. Mr Robertson's contemporary notes (taken down by Karen Walker³⁰¹⁶) record that there was minimal fire damage in the room and it was concluded that the door to room 4 was closed³⁰¹⁷;

40. Room 5

There was more evidence of smoke and heat in room 5 than in room 4. However, the ceiling light shade was noted to be unaffected by heat. By reference to the photographs in production 326 (particularly 326A, 326B and 326G), and his contemporary notes (production 1797, page 83), Mr Robertson concluded that the door to room 5 was either slightly ajar or it did not fit into its frame well thereby leaving a gap to permit the ingress of heat and smoke. (A third possibility was that the door was moved during the fire. There is, however, no evidence from fire officers of flames or significant heat in the corridor when they entered corridor 3)³⁰¹⁸.

41. Room 6

Production 1797, page 84, contains Mr Robertson's contemporary notes relative to room 6. They note a functioning door and the discovery of a wedge whose upper surface was soot stained but under the surface was clean.

Photograph 329A showed the outside of the door to room 6. It showed increased heat damage. There had been smoke build up on the door itself which related to the smoke patterns on the walls around the door. Photograph 329B showed heavier soot deposition in the room than was visible in room 4 (although, room 6 being closer to the fire than room 4, more smoke penetration was to be expected). The pattern of smoke staining above the door in photograph 329G was symmetrical, indicating that the smoke was pushed harder into this room compared with others.

³⁰¹⁶ David Robertson, 8 February 2010, pm, pp54-58;

³⁰¹⁷ David Robertson, 8 February 2010, pm, pp71-73; production 1797, p80;

³⁰¹⁸ David Robertson, 8 February 2010, pm, pp73-79;

Mr Robertson concluded that the door was closed at the time of the fire. That conclusion accorded with the contemporary notes³⁰¹⁹

Under reference to page 7 of her report, production 1796, and the photographs in production 329, Mrs Clark revised her original opinion in the locus report that the door to room 6 was closed during the fire. She expressed the conclusion that room 6 was slightly ajar or may have been opened in the fire³⁰²⁰. The possibility that the door was slightly ajar is, however, supported by the evidence of Yvonne Carlyle who went to room 6 and moved the door to within 2 inches of being fully closed shortly before the fire alarm sounded³⁰²¹

42. **Room 20**

Production 1797, page 81, contains Mr Robertson's contemporary notes relative to room 20. They record that there was a functional door closer, but that a wedge position was evident on the carpet. Mr Robertson concluded that the door to room 20 was wedged open. A mark on the carpet, shown in photograph 324B, was probably where the door stop had been. Photographs 324A and 330G showed much greater soot deposition than was present in room 4³⁰²².

43. **Room 19**

Production 1797, page 82, contains Mr Robertson's contemporary notes relative to room 19. They record that there was a functioning door closer and that Mr Robertson had concluded that the door was closed at the time of the fire. Photograph 327D showed the inside of the room in which there was more severe smoke staining than was seen in room 4. Under reference to photograph 327A, and in particular the appearance of the outer door (which was relatively clean compared with the door frame), Mr Robertson reconsidered the original opinion in the locus report that the

³⁰¹⁹ David Robertson, 8 February 2010, pm, pp79-84; Production 1797, p84;

³⁰²⁰ Karen Walker or Clark, 10 February 2010, am, pp148-151;

³⁰²¹ Yvonne Carlyle, 27 November 2009, am, pp67-70, 106-111;

³⁰²² David Robertson, 8 February 2010, pm, pp84-88;

door was closed. The door may in fact have been wedged open but the precise extent to which it was open could not be determined³⁰²³.

Under reference to pages 5 and 6 of her report, production 1796, and the photographs in production 327, Mrs Clark also revised her original opinion in the locus report that the door to room 19 was closed during the fire.

If the door had been fully closed Mrs Clark would have expected the damage at the top of the outside of the door to have been similar to the damage to the adjacent paintwork.

Internally, towards the left hand wall, black smoke staining could be seen on the wall. This suggests that smoke had entered the room from the corridor³⁰²⁴.

Mrs Clark concluded that the door was wedged partially open or ajar. By ajar she meant that the door was not fully closed over and left a small gap allowing ingress of smoke³⁰²⁵.

Given the inconclusive opinion reached by Mr Robertson but given also the fact that both witnesses appeared to depart from the view that the door was closed in the original locus report, I accepted Mrs Clark's opinion that the door was either ajar or wedged very slightly open.

44. **Room 18**

Photograph 325A showed the exterior of the door to this room. The condition of the door appeared to be better than the condition of the surrounding wall area. The surface of the door was relatively undamaged. Mr Robertson concluded that the door was, at least to some extent, open and not in contact with the door frame. Photograph 325G showed that, on the inside of the door, there was soot staining but no pressure marks.

Production 1797, page 86, contains Mr Robertson's contemporary notes relative to room 18. The notes record that there was a functional door closer. Accordingly, for it to have been open the door would require to have been wedged³⁰²⁶.

³⁰²³ David Robertson, 8 February 2010, pm, pp88-97;

³⁰²⁴ cf. Photographs 327G and 327J

³⁰²⁵ Karen Clark, 10 February 2010, am, pp151-155;

45. Room 17

Production 1797, page 89, contains Mr Robertson's contemporary notes relative to room 17. Mr Robertson examined the door closer and found it to be in working order. A wedge mark on the carpet indicated that the door had been held open in order to overcome the effect of the closer.

Photograph 341A shows the outside of the bedroom door to room 17. The fire damage to the door evinced a clear angular pattern on the door's surface. If the door had been closed the line of the fire damage would have been horizontal rather than diagonal. The reason for this is that heat and smoke rise by convection, building up at the ceiling and gradually moving down in a horizontal heat horizon. An open door changes this pattern. Heat and smoke will wrap round the doorway, move into the room and rise within the room. Photograph 341B shows the inside of the bedroom door. Again there is an angular pattern on the door.

The fire damage inside the room was greater than that seen in other rooms. Mr Robertson noted thermal cracking to the windows which appeared to have failed under heat and pressure. There was evidence of significant heat penetration. If the bedroom door had been closed there would have been less damage and a different distribution of heat and smoke

Mr Robertson concluded that the door had been wedged open at the time of the fire³⁰²⁷.

46. Room 16

Production 1797, page 90, contains Mr Robertson's contemporary notes relative to room 16. The door was noted to have been fully open with a wedge protection mark on the carpet.

Photograph 340A shows the view from the corridor. There is an angular pattern of damage on the front face of the door. Severe damage is visible within the room, including cracked windows, spalling to the ceiling caused by heat and pressure to the

³⁰²⁶ David Robertson, 8 February 2010, pm, pp97-100;

³⁰²⁷ David Robertson, 9 February 2010, am, pp16-24, production 1797, p89;
Production 1795, p8;

plasterwork, and cracks in the ceiling³⁰²⁸. The degree of damage is consistent with the door having been open at the time of the fire.

Damage extended to the ensuite toilet off room 16 with evidence of significant soot staining and discoloration. A fitting on the wall backing onto cupboard A2 appeared to have suffered greater heat damage than fittings on the ceiling³⁰²⁹.

47. **Room 7**

Room 7 was unoccupied on the night of the fire. However, an inspection of the room is helpful to an analysis of which doors were open at the time of the fire.

Production 1797, page 91, contains Mr Robertson's contemporary notes relative to room 7. Photographs of the room are contained in production 338. The door to room 7 had a functional door closer.

Photograph 338A shows the door leading into room 7. It has suffered from fire damage. The pattern of damage to the door is angular. This suggests that the door was open at the time of the fire.

Internally thermal fractures were noted at the windows. There was again a large area of spalling to the ceiling. Photograph 338B showed extensive heat damage. The bed cover had started to melt. There was widespread soot deposition. The carpet appeared to have been burnt. This indicated that the heat had descended to floor level. The presence of heat damage at least at low level was consistent with the door being open at the time of the fire. Moreover, the contemporary notes record the finding of the top of an aerosol can on the floor of room 7. There was no evidence of aerosols having been stored in the room such as might account for its presence.

Mr Robertson's conclusion at the time of inspection was that the door was wedged fully open at the time of the fire. This conclusion was confirmed in Mr Robertson's report, production 1795, page 11³⁰³⁰.

48. **Room 8**

Room 8 was unoccupied on the night of the fire.

³⁰²⁸ See eg. productions 340C, 340H and 340J

³⁰²⁹ David Robertson, 9 February 2010, pp24-47; production 340;

³⁰³⁰ David Robertson, 9 February 2009, am, pp53-60; production 338;

Production 1797, page 93, contains Mr Robertson's contemporary notes relative to room 8. Photographs of the room are contained in production 339. The door to room 8 had a functional door closer.

The notes record a heat horizon at about 1 metre above floor level and the smoke horizon at floor level. The conclusion Mr Robertson reached at the time of inspection was that the door was wedged wide open at the time of the fire.

Photograph 339B showed a view of room 8 from the corridor. There was, again, an angular pattern of fire damage to the door. Photograph 339F showed the interior of the room which was very severely affected by fire and smoke. Mr Robertson drew attention to the damage to a paper towel dispenser and low level wall sockets, thermal fractures to the windows (as distinct from mechanical breakage of glass – also visible – and probably the result of Fire Brigade ventilation work) and the fact that the curtains had fallen to the floor.

Mr Robertson's conclusion that the door was wide open at the time of the fire was confirmed in his report, production 1795, page 13, and examination of the photographs in production 339³⁰³¹.

49. Room 9

Production 1797, page 94, contains Mr Robertson's contemporary notes relative to room 9. The door was noted to have been slightly open at the time of the fire. There were thermal fractures to the windows which suggested that the door was open. Photograph 355I, a view of the inside of room 9 looking towards the door, reveals evidence of significant fire, heat and smoke within the room. In the notes the heat horizon was recorded as 2 metres above floor level.

In photograph 355A an angular pattern of fire damage is visible on the wall inside the room extending in an upward direction.

It was possible to draw conclusions from a comparison of the conditions in neighbouring rooms. A comparison with the conditions in room 10 led Mr Robertson to conclude that the door to room 9 cannot have been closed at the time of the fire³⁰³².

³⁰³¹ David Robertson, 9 February 2009, am, pp66-73, production 339;

³⁰³² David Robertson, 9 February 2009, am, pp74-84; production 355; cf. Mr Robertson's report, production 1795, page 16, in which he expressed a view that the door was closed or at most slightly ajar at the time of the fire. Under reference to the inspection of room 10 that was not a view to which Mr Robertson ultimately adhered;

Mrs Clark was of the opinion that the door to room 9 must have been slightly open or slightly ajar to allow the extent of heat damage apparent from the photographs of room 9³⁰³³

50. Room 10

Photograph 354C shows the interior of room 10. There is far less fire damage in room 10 than in room 9 (pointing to the conclusion that the door to room 9 was indeed open).

Production 1797, page 96, contains Mr Robertson's contemporary notes relating to room 10. There was noted to be a slight gap at the top of the door where it was not flush with the frame. The door closer was functional. A wedge was found but not in use. The windows were closed and the glazing was undamaged (unlike in room 9). There was no evidence of heat damage except just inside the door. In the rest of the room there was no heat damage and only light soot.

On page 16 of his report, production 1795, Mr Robertson expressed the opinion that the door to room 10 was closed at the time of the fire. The interior of the room was in good condition compared with room 9, where the door was open³⁰³⁴.

51. Room 11

Production 1797, page 97, contains Mr Robertson's contemporary notes relative to room 11. The door closer was functional. A wedge was found but it was not in use. The windows were intact and closed. The damage in room 11 was less than in those rooms at the corner (probably a reference to rooms 7, 8 and 9).

Inside the room there was some soot deposition³⁰³⁵. The light fittings were unaffected by heat and there was no apparent evidence of significant smoke or soot³⁰³⁶. There was some evidence of heat penetrating through the door, to a greater extent than in room 10, but the burning is localized to the door and immediately surrounding area.

³⁰³³ Karen Walker or Clark, 10 February 2010, am, pp155-159; production 1796, pp18-20;

³⁰³⁴ David Robertson, 9 February 2010, am, pp84-92; production 354;

³⁰³⁵ Production 353C;

³⁰³⁶ Production 353H;

On page 18 of his report, production 1795, Mr Robertson expressed the opinion that the door to room 11 was closed at the time of the fire³⁰³⁷.

Mr Robertson subsequently expressed the opinion that the door to room 47 (the toilet opposite room 11) was open at the time of the fire³⁰³⁸. In photograph 348G the door to room 11 was visible. Mr Robertson pointed out that the damage within room 47 was significantly greater than the damage in room 11, the door to which he had concluded was closed³⁰³⁹.

52. Room 12

Production 1797, page 100, contains Mr Robertson's contemporary notes relative to room 12.

The room was considered to be further away from the fire because the damage in the corridor was not as severe as it had been in the area of cupboard A2. The heat horizon appeared to be rising. Heat was evident at, and above, the dado rail.

The door closer was noted to have been functional but it was concluded that the door was almost fully open. There was a lot of fire and smoke damage within the room. Photograph 352G exhibited a pattern of heat damage around and above the door which was consistent with the door being fully open. There was fire damage to the lampshade and ceiling (in contrast to the room next door). The upper, but not the lower, window panes were cracked.

Photograph 352K disclosed a line on the carpet at the bottom of the door which, in Mr Robertson's view, showed that the door was wedged open at the time of the fire.

Mr Robertson identified label 790 as a battery operated clock which had been removed from the wall of room 12 by the mirror. The clock appeared to have stopped shortly before 0440 hours when the plastic face melted and stopped the hands from moving. This evidence was consistent with there having been a heat horizon within the room at the level of the clock. The room would have been affected by smoke.

On page 20 of his report, production 1795, Mr Robertson expressed the opinion that the door to room 12 was held open with a wedge at the time of the fire³⁰⁴⁰.

³⁰³⁷ David Robertson, 9 February 2010, am, pp92-97; production 353;

³⁰³⁸ David Robertson, 9 February 2010, am, pp135-140; production 1797, page 98; productions 348A, 348E and 348G;

³⁰³⁹ David Robertson, 9 February 2010, am, pp138-139;

³⁰⁴⁰ David Robertson, 9 February 2010, am, pp97-107; production 352;

53. Room 13

An examination of photograph 351A shows the door to room 13 and the fire door at the end of corridor 4b. The difference in fire damage presentation relative to each door is instructive. The bedroom door had an angular pattern of damage. The fire door had a horizontal pattern of damage. The conclusions Mr Robertson drew from the appearance of the two doors was that (i) the bedroom door must have been open, and (ii) the fire door must have been closed.

Production, 1797, page 102, contains Mr Robertson's contemporary notes relative to room 13. The door closer was not functional³⁰⁴¹. Compared with rooms 10 and 11, room 13 had suffered smoke and heat damage throughout. The heat was noted to have descended about 600mm from the ceiling and had caused the curtains to fall when the fasteners had melted. The windows were affected by thermal cracking³⁰⁴². Mr Robertson's original conclusion, confirmed in his report, production 1795, at pages 21-22, was that the door to room 13 was open at the time of the fire³⁰⁴³.

54. Room 14

Production 1797, page 101, contains Mr Robertson's contemporary notes relative to room 14.

Standing outside room 14 where photograph 887H1 was taken at the end of corridor 4b, it was noticeable that the wall underneath the dado rail was relatively unaffected by fire. Mr Robertson considered that this showed that this was as far as one could get from the seat of the fire without leaving the corridor altogether.

Photograph 350A showed the door to room 14 from the corridor. The burning on the door described an angular pattern³⁰⁴⁴. *The angular pattern is the most reliable indicator that the door was open at the time of the fire*, a conclusion which was supported by an examination of the room itself which was quite badly damaged by heat and smoke.

³⁰⁴¹ Production 351H;

³⁰⁴² Production 351I;

³⁰⁴³ David Robertson, 9 February 2010, am, pp107-114; production 351;

³⁰⁴⁴ cf. The pattern on the neighbouring fire door in photograph 351A;

In the contemporary notes Mr Robertson recorded that there was high level heat damage to about 600mm from the ceiling, and the lampshade was slightly damaged. In his report, production 1795, at pages 20-21, Mr Robertson concluded that the corridor outside room 14 was less damaged than outside room 12. This was because it was further from the fire of origin. The door closer was not functional. The door to room 14 was open at the time of the fire³⁰⁴⁵.

55. Room 15

Production 1797, page 99, contains Mr Robertson's contemporary notes relative to room 15. Mr Robertson recorded his conclusion that the door was wide open at the time of the fire.

There was a functional door closer. A black plastic wedge was found within the room. Photographs 349A and 349B showed the door to room 15 from the corridor. The burning on the door again described an angular pattern. This supported the conclusion that the door was open at the time of the fire. The inner panes of the windows were noted to be thermally fractured. Soot deposition in room 15 and the ensuite toilet was consistent with the door having been open.

Production 1795, at page 19, contains Mr Robertson's conclusion that the door was wedged almost completely open at the time of the fire.

The conditions in rooms 13, 14, and 15 were all worse than in room 11 (which had a closed door)³⁰⁴⁶.

56. Room 47

Production 1797, page 98, contains Mr Robertson's contemporary notes relative to the toilet, room 47. Mr Robertson recorded his conclusion that the door was almost fully open at the time of the fire.

Photograph 348A showed the door to room 47. By comparison with photograph 347A (door to the shower room, room 48) the burning on the door described an angular pattern. That pattern did not appear on the door to room 48.

The damage to room 47, which is seen in photograph 348E, was significantly greater than the damage to room 48. Photograph 348G showed that the floor had been

³⁰⁴⁵ David Robertson, 9 February 2010, am, pp115-123; production 350;

³⁰⁴⁶ David Robertson, 9 February 2010, am, pp123-128; production 349;

exposed to heat damage, and the door was damaged at its leading edge almost to ground level.

Photograph 348G also showed the entrance to room 11 on the opposite side of the corridor. The damage in room 47 was significantly greater than the damage in room 11 (which had a closed door).

Production 1795, at page 17, contains Mr Robertson's conclusion that the door was open at the time of the fire³⁰⁴⁷.

57. Room 48

Production 1797, page 95, contains Mr Robertson's contemporary notes relative to the shower room, room 48. Mr Robertson recorded his conclusion that the door was partly open.

The door must, however, have provided some protection because the inside of the shower room was less damaged than the corridor outside³⁰⁴⁸. Moreover, the damage to the exterior surface of the door did not describe the angular pattern shown on the door to the toilet, room 47³⁰⁴⁹.

The appearance of the ceiling, and relative damage to fittings at high and low level, supported the conclusion that the heat horizon was just below the level of the ceiling³⁰⁵⁰.

58. In light of the evidence given by the Forensic Scientists to the Inquiry the only modifications required to the conclusions in the locus report, production 978, are (i) that room 6 should be considered to have been slightly ajar, and (ii) that room 19 should be considered to have been ajar or wedged slightly open.

59. On 19 February 2004 Jean Edgar, a health and safety inspector with HM Health & Safety Executive, inspected Rosepark and made a report of her findings in relation to the position and condition of certain bedroom doors. The results of her findings, which reflect (in relation to the rooms she inspected) the photographic record just

³⁰⁴⁷ David Robertson, 9 February 2010, am, pp135-140;

³⁰⁴⁸ Photograph 347D;

³⁰⁴⁹ David Robertson, 9 February 2010, am, p136;

³⁰⁵⁰ David Robertson, 9 February 2010, am, pp128-135;

described, were included within production 1142 (under cover of a letter from the Health & Safety Executive to the Procurator Fiscal, Hamilton, dated 22 September 2004). The findings were spoken to by Ms Edgar³⁰⁵¹ and may be summarized as follows:

60. Room 4: Door closer fitted and working; door not fitting in frame;
61. Room 5: Door closer disabled (connecting arm disconnected);
62. Room 6: Door closer fitted and working;
63. Room 7: Door closer fitted and working;
64. Room 8: Door closer fitted and working (badly damaged by fire);
65. Room 9: No door closer fitted;
66. Room 10: Door closer fitted and working;
67. Room 11: Door closer fitted and working;
68. Room 12: Door closer fitted;
69. Room 13: Door closer disabled;
70. Room 14: Door closer disabled;
71. Room 15: Door closer fitted and working;
72. Room 16: Door closer fitted and working;
73. Room 17: Door closer fitted and working;
74. Room 18: Door closer fitted and working;
75. Room 19: Door closer fitted and working;
76. Room 20: Door closer fitted and working;
77. Room 23: No door closer fitted;

³⁰⁵¹ Jean Edgar, 26 April 2010, pm, pp76-89;

78. Room 24: Door closer disabled;
79. Room 37: No door closer fitted; door did not fit;
80. Room 25: No door closer fitted; screw holes for attaching closer to the door visible;
81. Room 26: Door closer fitted and working;
82. Room 27: No door closer fitted; screw holes visible;
83. Room 28: Door closer fitted and working;
84. Room 29: Door closer removed; poor catch and door slips open, Ms Edgar commented that this could easily allow smoke ingress through the gap³⁰⁵².

Conclusions

85. The evidence of Jill Cummings and Jean Edgar confirms the existence of a practice involving leaving bedroom doors open. Where other evidence points to bedroom doors in corridors 3 and 4 having been open on the night of the fire, such a situation would not represent a departure from existing practice.

86. The evidence of David Robertson and Karen Clark, based on their scene examination and on the photographs taken by David Thurley, provides reliable and convincing evidence that the doors which they conclude to have been open were indeed open. Their evidence is particularly convincing in relation to the rooms in corridor 4. This is because the patterns of fire damage were so clearly pronounced.

87. The fact that rooms 10 and 11 lay closer to the seat of the fire than other rooms in corridor 4b (particularly rooms 12, 13, and 14), yet suffered less damage, clearly supports the conclusion that the doors to these two rooms were closed at the time of the fire. Such a conclusion is consistent with the evidence of Yvonne Carlyle as to

³⁰⁵² Jean Edgar, 26 April 2010, pm, pp87-88;

the preferences of Robina Burns and Isabella MacLeod at the time of the fire³⁰⁵³, and also, in the case of Robina Burns, the evidence of her daughter Agnes Crawford³⁰⁵⁴.

88. In corridor 3 the conclusions of the forensic scientists were more cautious in respect of rooms 5, 6, and 19. The evidence of Professor Purser resolves the position in respect of those rooms. Each was partially open.

Summary of positions of bedroom doors

In the circumstances I conclude that the positions of the bedroom doors in corridors 3 and 4 were as follows:

Room 4: Closed

Room 5: Partially open

Room 6: Partially open

Room 9: Slightly open

Room 10: Closed

Room 11: Closed

Room 12: Open

Room 13: Open

Room 14: Open

Room 15: Open

Room 16: Open

Room 17: Open

Room 18: Open

Room 19: Partially open

Room 20: Open

Note to Chapter 29

There are no submissions from any interested parties which call for comment.

³⁰⁵³ Yvonne Carlyle, 27 November 2009, am, pp52-55;

³⁰⁵⁴ Agnes Crawford

CHAPTER 30: THE LOCATION OF THE FIRE

This chapter addresses the finding which I have made in terms of section 6(1)(a) of the 1976 Act regarding: where any accident resulting in the death took place.

I have determined as follows:-

1. Each of the deaths resulted from a fire which occurred at Rosepark Care Home. It started at 0425 hours on 31 January 2004.

2. The fire started low down on the south side of the cupboard known as cupboard A2 in the upper corridor of Rosepark Care Home.

1. Each of the deaths resulted from a fire which occurred at Rosepark Care Home on 31 January 2004.

1. Each of the deceased died as a result of the inhalation of smoke and toxic gases or of the sequelae of such inhalation: see Chapter 42 (formerly 36). The inhalation of smoke and toxic gases in each case occurred as a result of the fire which occurred at Rosepark Care Home on 31 January 2004.

2 The fire started low down on the south side of the cupboard known as cupboard A2 in the upper corridor of Rosepark Care Home.

General

2. The evidence supporting this determination may be approached in the following stages.

3.1. The fire occurred in corridor 4 on the upper floor at Rosepark Care Home.

3.2. The fire started in cupboard A2.

3.3. The fire started at the southern side of cupboard A2 at low level.

The fire occurred in corridor 4 on the upper floor at Rosepark Care Home

3. The fire occurred in corridor 4 on the upper floor at Rosepark.
 - 7.1. After the fire alarm sounded, staff found no evidence of fire in corridor 1 or on the lower floor.
 - 7.2. During the early stages of the incident, staff passed through the central stairwell without noticing anything untoward.
 - 7.3. Mr. Norton and Miss Carlyle were able to travel up the south western stair to or almost to the door into corridor 4.
 - 7.4. During the rescue phase of the incident, the visibility due to smoke logging was worst in corridor 4³⁰⁵⁵. There was a rise in temperature on passing from the liftshaft into corridor 3³⁰⁵⁶, and a further rise in temperature on passing from corridor 3 into corridor 4³⁰⁵⁷. The only visible evidence of fire was in corridor 4³⁰⁵⁸.
 - 7.5. On examination of the Home following the incident corridor 4 was found to exhibit extensive damage due to the effects of fire³⁰⁵⁹, By contrast:-
 - 3.5.1. No part of the lower floor was found to have been involved in the incident³⁰⁶⁰.

³⁰⁵⁵ David Buick, 7 December 2009, am, p. 133 (compare with his evidence about corridor 3 at pp. 82-83). Visibility in the lower floor corridor was clear: James Clark, 9 December 2009, am, pp. 11-12.

³⁰⁵⁶ David Buick, 7 December 2010, am, pp. 82-83; David Ferguson, 8 December 2009, am,

³⁰⁵⁷ David Buick, 7 December 2009, am, p. 133

³⁰⁵⁸ David Buick, 7 December 2009, am, pp. 140-141; David Ferguson, 8 December 2009, pm, pp. 23-26.

³⁰⁵⁹ Stuart Mortimore, 11 March 2010, pm, p. 52.

³⁰⁶⁰ Stuart Mortimore, 11 March 2010, pm, p. 48.

3.5.2. The upper floor from the main entrance to the liftshaft was not visibly affected by fire³⁰⁶¹.

3.5.3. No smoke contamination was found in the liftshaft itself.

3.5.4. Only moderate amounts of smoke were found to have contaminated the stairwell at the south-west corner of the upper floor³⁰⁶².

3.5.5. In the roofspace, there was an area of charring below the insulation but immediately above cupboard A2. Otherwise, the smoke damage in the roofspace was consistent with smoke ingress through the roof access from corridor 4.

3.5.6. Only moderate amounts of smoke had contaminated corridor 3³⁰⁶³. And in corridor 3 an approximately V shaped smoke pattern extended from about mid-height of the corridor 3/4 fire door and plastic components of an emergency light fitting and an emergency exit sign which had been mounted above the door had softened and sagged³⁰⁶⁴, consistent with the ingress of smoke and heat from corridor 4 into corridor 3.

The fire started in cupboard A2

4. The location of origin of a fire may be identified by examining the patterns of fire damage³⁰⁶⁵. Fires typically spread as follows. Heat from a fire will rise vertically until it reaches an obstruction such as a ceiling. Hot combustion products and flame will then generally spread in all directions, unless there is a physical barrier to prevent them spreading further. In a space such as an open corridor, any fire that starts part way along the corridor will generally spread relatively evenly in each direction from the point of origin, until an obstruction such as a wall is met. Furthermore, as the flames and hot combustion products

³⁰⁶¹ Stuart Mortimore, 11 March 2010, pm, pp. 48-49.

³⁰⁶² Stuart Mortimore, 11 March 2010, pm, p. 50.

³⁰⁶³ Stuart Mortimore, 11 March 2010, pm, p. 50.

³⁰⁶⁴ Stuart Mortimore, 11 March 2010, pm, pp. 50-51.

³⁰⁶⁵ Stuart Mortimore, 11 March 2010, am, p. 27, pm, p. 54.

impinge on other combustible materials along such a corridor, these materials will ignite and become involved in the fire, thereby assisting the fire to spread further³⁰⁶⁶.

5. It follows:-

7.6. That the area of greatest fire damage will give an indication where a fire started³⁰⁶⁷;

7.7. That, as a general rule, the lowest point of charring will correspond to the place where the fire started³⁰⁶⁸; and

7.8. That in a space like a corridor, the area of fire origin will generally be towards the centre of the area of burning, unless there is some other factor, such as the availability of fuel, drafts or a physical barrier, that would encourage the fire to spread more readily in one particular direction³⁰⁶⁹.

6. The only significant low level fire damage at Rosepark was in corridor 4³⁰⁷⁰. Within corridor 4, the main area of fire damage extended from the north end of cupboard A2 to approximately the location of chair 1 outside room 15³⁰⁷¹. Throughout this area, charring extended from floor level to ceiling height³⁰⁷². In corridor 4B, the lower edge of the area of charring rose from floor level at or about the doorway of room 12 and increased in height from the floor as one proceeded west³⁰⁷³. In corridor 4A the floor to ceiling char pattern extended from the corner northward to the north side of cupboard A2. From there the base of the char pattern rose until, at the corridor $\frac{3}{4}$ fire door, it was at about waist height³⁰⁷⁴. Although some of the rooms off corridor 4 exhibited severe

³⁰⁶⁶ Stuart Mortimore, 16 March 2010, am, p. 5.

³⁰⁶⁷ Stuart Mortimore, 11 March 2010, am, p. 27, pm, p. 54.

³⁰⁶⁸ Stuart Mortimore, 11 March 2010, pm, p. 68.

³⁰⁶⁹ Stuart Mortimore, 16 March 2010, am, p. 5.

³⁰⁷⁰ Stuart Mortimore, 15 March 2010, pm, p. 67.

³⁰⁷¹ Stuart Mortimore, 15 March 2010, pm, pp. 67-68.

³⁰⁷² Stuart Mortimore, 11 March 2010, am, pp. 29-32, pm, pp. 55-56

³⁰⁷³ Stuart Mortimore, 11 March 2010, pm, p. 56.

³⁰⁷⁴ Stuart Mortimore 11 March 2010, pm pp. 57-58.

smoke contamination and the effects of high level heat, the severity of the damage to all of the rooms was less than that within the corridor itself³⁰⁷⁵.

7. Within the area of greatest fire damage there were areas of more severe localized burning as follows³⁰⁷⁶.

10.1. The interior of cupboard A2 had been subjected to a sustained and extensive fire attack³⁰⁷⁷: see below.

10.2. Chair C2, located opposite the door to room 9, was significantly damaged. The majority of the foam padding of this chair had been burned³⁰⁷⁸. This chair exhibited a relatively even pattern of fire damage³⁰⁷⁹.

10.3. Chair C1 was also significantly fire damaged, but it exhibited a directional pattern of fire attack, consistent with the effects of fire spreading westwards³⁰⁸⁰.

In addition, combustible components of a wheelchair that had been parked in the vicinity of Chair C1, and particularly the handles, had burned and dropped to the floor, resulting in the floor being penetrated by fire³⁰⁸¹.

8. Cupboard A2 had been subjected to a sustained and extensive attack by fire in which materials over the full height of the cupboard had been burned³⁰⁸². Within the cupboard the lowest point of appreciable charring and the most severe fire damage was to the south side of the cupboard, that is to the left hand side looking at the cupboard from outside³⁰⁸³. At this location, the charring extended from near floor level, from which it rose in an

³⁰⁷⁵ Stuart Mortimore, 11 March 2010, pm, pp. 52-53.

³⁰⁷⁶ Stuart Mortimore, 16 March 2010, am, pp. 2-4.

³⁰⁷⁷ Stuart Mortimore, 15 March 2010, pm, p. 68.

³⁰⁷⁸ Stuart Mortimore, 16 March 2010, am, p. 4.

³⁰⁷⁹ Stuart Mortimore, 11 March 2010, am, pp. 66-68, pm, pp. 56, 61; 15 March 2010, pm, p. 69.

³⁰⁸⁰ Stuart Mortimore, 15 March 2010, pm, p. 69.

³⁰⁸¹ Stuart Mortimore, 15 March 2010, pm, pp. 69-70.

³⁰⁸² Stuart Mortimore, 11 March 2010, pm, p. 67.

³⁰⁸³ Stuart Mortimore, 11 March 2010, pm, p. 68.

approximately V-shaped pattern within the cupboard. This area of more severe fire damage was behind the southern door of the cupboard, which was closed³⁰⁸⁴. Relatively little floor level damage had been sustained by items to the north of this point. Items on all of the shelves above had been attacked by fire with slightly more severe charring being observed to the south of each shelf³⁰⁸⁵. The more severe fire damage within cupboard A2 was to the south side of the cupboard,³⁰⁸⁶. The contents of the smaller upper cupboard had been subjected to relatively less severe attack by fire than the remainder of the main cupboard. This was consistent with the doors of the smaller cupboard being closed during at least part of the incident³⁰⁸⁷ (although at some point during the fire the southern door of the smaller cupboard had become detached and come to rest in the location shown in Photograph 18 (p. 142) of Pro 1454)³⁰⁸⁸.

9. Protection patterns found on the carpet after the fire justify the conclusion that the northern door of cupboard A2 was in two different positions during the course of the fire: (i) slightly ajar; and (ii) fully open. This evidence would be consistent with the door having been slightly ajar - in the position shown in photograph 16 (p. 140) of Pro 1454 - when the fire started, but having been blown open in the course of the fire by an overpressure³⁰⁸⁹.
10. The patterns of fire damage support the proposition that the fire started within cupboard A2 and spread into the corridor rather than the other way round for the following reasons.

10.1. A fire starting in the corridor would initially have spread along the corridor at high level. As such a fire developed the base of the flames and hot combustion products would have descended from ceiling level and could have spread through any opening, such as the ajar cupboard door. But the pattern of damage seen within and outside the cupboard was less consistent with such a

³⁰⁸⁴ Stuart Mortimore, 15 March 2010, pm, p. 68.

³⁰⁸⁵ Stuart Mortimore, 11 March 2010, pm, p. 69.

³⁰⁸⁶ Stuart Mortimore, 11 March 2010, pm, p. 69.

³⁰⁸⁷ Stuart Mortimore, 11 March 2010, pm, pp. 69-70.

³⁰⁸⁸ Stuart Mortimore, 11 March 2010, pm, pp. 65-68, 70

³⁰⁸⁹ Stuart Mortimore

pattern than with a fire starting in the cupboard and spreading out into the corridor.

10.2. The only way that a V shaped pattern of damage on the left hand side of the cupboard could be explained consistently with a fire spreading into the cupboard from the corridor would have been by something within the cupboard catching fire and falling. But, on that hypothesis, one would have expected a smaller extent of damage down the south side of the cupboard than was in fact observed³⁰⁹⁰.

10.3. It would be difficult to reconcile a pattern of fire development moving from the corridor into the cupboard with the relative absence of damage to the contents of the small inner cupboard. There was no top on this cupboard and any fire spreading into the cupboard at high level and down could have been expected to attack the contents of this cupboard before it attacked the other contents of the main cupboard.

10.4. Had the fire spread into the cupboard from the corridor, it would also have been likely to spread into adjacent bedrooms, the doors of which were open. While the difference in the nature of the damage between the cupboard and bedrooms might be explained in part by the presence of fuels, it is more consistent with the effects of a fire spreading from the cupboard into the corridor, than with a fire spreading in the opposite direction³⁰⁹¹.

10.5. A fire developing within the relatively confined space of the cupboard would be expected to result in a pressure rise such as would force the fire out into the corridor. By contrast, while a fire developing in the larger space of the corridor would result in a pressure rise, the effect would be less. It follows that any fire spread into the cupboard from the corridor would probably have been comparatively slow compared with fire spread in the opposite direction³⁰⁹².

³⁰⁹⁰ Stuart Mortimore, 16 March 2010, am, pp. 15-16.

³⁰⁹¹ Stuart Mortimore, 16 March 2010, am, pp. 10-13.

³⁰⁹² Stuart Mortimore, 16 March 2010, am, pp. 10-13.

10.6. The evidence that the northern door of the cupboard was blown open during the fire is more consistent with a fire developing within the cupboard. If the fire had spread from the corridor into the cupboard it would have been likely that the tops of the doors would have burnt away by the time that the aerosols became involved in the fire, such that it would be less likely that the northern door would have been blown open³⁰⁹³. It is also likely that, even if the door had been blown open, the carpet in the corridor would have been burnt to such an extent that there would not have been any discernible protection pattern whereas such a pattern was visible³⁰⁹⁴. Furthermore the outer face of the northern door had been charred to a lesser extent than the inner face of the door³⁰⁹⁵ which would appear at least be consistent with a fire spreading from the inside of the cupboard out.

10.7. The evidence of arcing activity attributable to the effects of fire is more consistent with a fire developing within the cupboard than with a fire spreading into the cupboard from the corridor. Fire spreading into the cupboard from outside – probably have been at high level - would have been likely to damage the main power supply cable to the distribution board sufficiently for it to fail and disconnect the electricity supply to the board before any electrical arcing activity would have been seen within the board³⁰⁹⁶.

10.8. When the insulation in Section 7 of the roofspace directly above cupboard A2 was pulled to one side, there was visible charring concentrated on the ceiling area of the cupboard and immediate vicinity. This may be seen in Photograph 39 (p. 163) of Pro 1454. Smoke and fire had spread into the roofspace through the cable penetrations for the cables which were routed to the distribution board in cupboard A2 through the wall void between cupboards A1 and A2. This charring is consistent with the fire starting within the cupboard. If the fire had

³⁰⁹³ Stuart Mortimore, 16 March 2010, am, pp. 13-15.

³⁰⁹⁴ Stuart Mortimore, 16 March 2010, am, p. 14

³⁰⁹⁵ Stuart Mortimore, 11 March 2010, pm, p. 66.

³⁰⁹⁶ Stuart Mortimore, 16 March 2010, am, pp. 16-18.

started elsewhere one would have expected it to attack the ceiling in that area in preference to within the cupboard³⁰⁹⁷.

11. The areas of particularly severe localized burning at Chairs C1 and C2 may be explained by the significant quantity of combustible materials contained within these chairs, which would be expected to generate pockets of relatively greater fire damage³⁰⁹⁸, distorting any fire patterns resulting from the initial fire³⁰⁹⁹. The same would be true, though to a lesser extent, of the table outside room 9³¹⁰⁰. The involvement in the fire of chair C2 would also explain why the wallpaper to the west side of that table had sustained more damage than the wallpaper to the east, consistent with a fire attack from the west³¹⁰¹.
12. There was relatively little fire damage north of cupboard A2. For this reason, Mr. Mortimore did not immediately accept that cupboard A2 was the location of origin of the fire. However, the relative levels of damage north and south of the cupboard may be explained by reference to the evidence that the north door of cupboard A2 had blown open. That door would thereafter have tended to form a barrier which restricted the spread of fire in a northerly direction from the cupboard³¹⁰².
13. The proposition that the fire started within cupboard A2, which is derived from the patterns of damage, is supported by the reconstruction work undertaken by the BRE. Test One undertaken by the BRE (in which, of course, the fire was ignited at low level to the south side of cupboard A2 in the reconstruction) exhibited a similar pattern of damage to that found at Rosepark³¹⁰³. In particular, as in the actual incident, there was relatively little fire damage north of cupboard A2, apparently because the north door swung open during the

³⁰⁹⁷ Stuart Mortimore, 15 March 2010, pp. 8-15.

³⁰⁹⁸ Stuart Mortimore, 16 March 2010, am, pp. 7-8.

³⁰⁹⁹ Stuart Mortimore, 11 March 2010, am, p. 65.

³¹⁰⁰ Stuart Mortimore, 16 March 2010, am, pp. 7-8.

³¹⁰¹ Stuart Mortimore, 11 March 2010, pm, p. 63.

³¹⁰² Stuart Mortimore, 15 March 2010, pm, pp. 43-44, 16 March 2010, am, pp. 8-10.

³¹⁰³ Stuart Mortimore, 15 March 2010, am, pp. 129-130.

course of the reconstruction. And, as in the actual incident, chairs C2 and C1 were involved in the development of the fire.

The location of fire within cupboard A2

14. The seat of the fire (by which is meant the initial point of flaming combustion, something which may be different from the source of ignition) was somewhere along the southern wall of the cupboard below the distribution box³¹⁰⁴. The pattern of burning within cupboard A2 indicated that the fire was more likely to have started on the south side of the cupboard than on the north side and at the bottom of the cupboard.³¹⁰⁵ The more severe fire damage within cupboard A2 was to the south side of the cupboard, that is to the left hand side looking at the cupboard from outside³¹⁰⁶. At this location, the charring extended from near floor level, from which it rose in an approximately V-shaped pattern within the cupboard. This area of more severe fire damage was behind the southern door of the cupboard, which was closed³¹⁰⁷.

15. Some support for the proposition that the fire started low down on the left hand side of the cupboard may be obtained from the reconstruction tests undertaken by the HSL and the BRE. In each of these tests a fire was set in the bottom left hand side of the cupboard.
 - (a) HSL. There was a degree of similarity between the fire damage in the test cupboard to that observed at Rosepark. This tended to support the view that the fire had started in the back corner or thereabouts of the cupboard and certainly on the left hand side of the cupboard³¹⁰⁸.

³¹⁰⁴ Stuart Mortimore, 18 March 2010, pm, pp. 37-38.

³¹⁰⁵ Stuart Mortimore, 15 March 2010, pm, pp. 68-69, 16 March 2010, am, pp. 21-23.

³¹⁰⁶ Stuart Mortimore, 15 March 2010, pm, p. 68.

³¹⁰⁷ Stuart Mortimore, 15 March 2010, pm, p. 68.

³¹⁰⁸ Stuart Mortimore, 15 March 2010, am, p. 103.

(b) BRE, Test One. As at Rosepark itself, there was severe damage to the left hand side of the cupboard and less damage towards the right hand side³¹⁰⁹. The BRE work tended to confirm that the fire (as opposed to the source of ignition) started in the bottom left hand side of the cupboard³¹¹⁰.

16. Further, work done by the HSL leads to the conclusion that the initial fire is more likely to have occurred outside the distribution board than to have started inside the board and spread to the cupboard (although this does not necessarily preclude the possibility that sparks from the distribution board ignited combustible materials inside the cupboard)³¹¹¹. In particular:-

16.1. Tests on the plastic components within the Board indicated the difficulty of sustaining combustion with any of those components.

16.2. Busbar temperature tests established that the busbar would not heat up even on overcurrent to a temperature anywhere near that required to ignite the plastic components within the distribution board.

16.3. Tests in which fires were set inside a distribution board showed that it was difficult to involve fuels within the distribution board in a fire.

16.4. A test involving a replica cupboard indicated that patterns of damage not dissimilar to those in the incident cupboard could be generated by a fire starting beneath the distribution board.

The glow-wire tests

17. These tests were designed to ascertain how the various plastic components within the distribution board responded to temperature. A U-shaped wire, the

³¹⁰⁹ Stuart Mortimore, 15 March 2010, am, p. 133.

³¹¹⁰ Stuart Mortimore, 15 March 2010, pm, pp. 31-32.

³¹¹¹ Stuart Jagger, 19 March 2010, am, pp. 86-87.

temperature of which could be progressively raised, was pressed against the various components³¹¹². The results of the glow-wire tests were as follow.

Plastic front covers

17.1. At about 346 degrees Centigrade, these covers (which were probably not in situ in any event) slightly melted; at 560 degrees the wire broke through the cover; at 749 degrees there was rapid evolution of fumes but no flaming; at 840 degrees there was immediate flaming which did not extinguish when the wire was removed³¹¹³.

MCB blanking plug

17.2. At about 659 degrees Centigrade the blanking plug melted; at 764 degrees there was rapid flaming and the wire penetrated the component; and at about 800 degrees, there was flaming which did not extinguish when the wire was removed and the plastic was very mobile and flaming drops fell down inside the unit³¹¹⁴.

Isolator switch

17.3. At about 663 degrees Centigrade there was copious flaming at the switch lever; at about 700 degrees copious fumes were emitted; at about 751 degrees, the switch body became incorporated in the flaming, burning drops fell away and were extinguished, and the flaming was almost self-propagating³¹¹⁵.

Merlin Gerin MCB

17.4. At temperatures between 556 degrees and 674 degrees Centigrade, the component melted and the wire penetrated into its body; at about 767 degrees,

³¹¹² Stuart Jagger, 19 March 2010, am, pp. 6-10.

³¹¹³ Stuart Jagger, 19 March 2010, am, pp. 11-13

³¹¹⁴ Stuart Jagger, 19 March 2010, am, pp. 13-15.

³¹¹⁵ Stuart Jagger, 19 March 2010, am, pp. 15-17.

the plastic caught fire and flamed for about 10 seconds but there were no drips; the flame was not self-propagating³¹¹⁶.

MEM MCB

17.5. At about 754 degrees Centigrade, the switch lever flamed immediately but the MCB body showed little penetration up to 967 degrees Centigrade, there was little smoke, no charring and no ignition³¹¹⁷.

Busbar cover

17.6. Just above 200 degrees Centigrade, the busbar cover exhibited slight melting; up to 300 degrees there was slight penetration of the component by the wire; at 564 degrees full penetration was obtained; at about 650 degrees the component melted quickly; at 760 degrees there were copious fumes but no flaming; even at 954 degrees there was no flaming of the component although the plastic label attached to it burned when the glow wire was in contact with it; at 1068 degrees there was flaming and penetration but the flaming was not self-propagating³¹¹⁸.

Busbar temperature tests

18. A test was undertaken to ascertain the temperatures which could be generated at the busbar at normal and overload currents. With a current of 83 amps, after six hours the temperature of the busbar reached a steady-state of 27.7 degrees Centigrade. Thereafter if a current of 102 amps (an overload current) was passed through the busbar for a further 14 hours, the busbar reached a steady state temperature of 36.5 degrees Centigrade. The conclusion was that the temperatures which could be generated within the busbar were insufficient to cause thermal degradation of PVC and were nowhere near the temperatures identified in the glow wire tests as the

³¹¹⁶ Stuart Jagger, 19 March 2010, am, pp. 17-18

³¹¹⁷ Stuart Jagger, 19 March 2010, am, pp. 18-19.

³¹¹⁸ Stuart Jagger, 19 March 2010, am, pp. 19-21.

temperatures required to cause changes in the various plastic components within the unit³¹¹⁹.

Flame impingement tests

19. A Merlin Gerin MCB and a MEM MCB were mounted next to each other and subjected to flame from two Number 7 cribs. The Merlin Gerin MCB was significantly more damaged than the MEM MCB³¹²⁰.

Fires inside a distribution board

20. Two tests were undertaken by HSL to investigate the potential for fires starting within the distribution board to grow and spread from there into the cupboard.

Test 1

20.1. A small metal tray was constructed and fitted in the base of the distribution board casing. This was filled with diesel fuel (gas oil) and a small quantity of wood wool added to act as a wick. The fuel was lit by means of an electric match. The burning time of the igniter was extended by building the electric match into a bundle of five conventional matches tied together to create single unit.

20.2. When the igniter was fired, the fuel in the tray ignited readily and flames could be seen through small gaps in the casing of the board near the isolator switch. The tray fire showed no tendency to self-extinguish through lack of oxygen and smoke was seen to escape from the distribution board at the rear and other orifices where electric cables passed through the plasterboard wall. After 52 seconds the latch on the cover for the upper row of MCBs opened and after 3 minutes and 4 seconds blackening above the lower latch was observed. At 4 minutes and 14 seconds the levels of emitted smoke were seen to increase and after 4 minutes and 37 seconds the growing fire broke out of the right hand side

³¹¹⁹ Stuart Jagger, 19 March 2010, am, pp. 21-24.

³¹²⁰ Stuart Jagger, 19 March 2010, am, pp. 24-29

of the box. A few seconds later, at 4 minutes 40 seconds, the plastic MCB covers began to soften and sag allowing flames to break out through the front of the unit.

20.3. The fire was then extinguished. The damage within the unit was confined to the upper region only. The upper parts were smoke blackened and some of the insulation to the upper row of MCBs had been partly consumed, but the MCBs were largely untouched by the effects of fire. On the lower busbar the cables leaving the MCBs seemed largely undamaged. None of the MCBs had tripped out. Externally, the plastic covers had sustained significant damage.

20.4. This trial produced a fire which was unrealistically large and long-lived. The ignition source dominated the combustion. The components in the board itself did not ignite and burn. The damage with the board was essentially caused by the original ignition source. The experiment did demonstrate, however, that there was sufficient oxygen within the board to sustain a significant fire³¹²¹.

Test 2

20.5. In Test 2, the initiating fire comprised a pad of Kaewool (a mineral wool blanket), about 2 cm square, soaked in diesel fuel.

20.6. The damage largely comprised smoke damage to the upper parts of the box. The fire did not spread significantly within the components of the board. It died out reasonably quickly. There was no self-sustaining fire within the board³¹²².

Conclusions

20.7. These tests did not replicate the patterns and levels of damage seen inside the incident distribution board and it was only possible to involve fuels within the board itself with great difficulty. One may conclude that, although any fire

³¹²¹ Stuart Jagger, 19 March 2010, am, pp. 29-39.

³¹²² Stuart Jagger, 19 March 2010, am, pp. 39-41.

starting inside the unit would burn to completion without restriction of ventilation, it is unlikely that the fire initially started inside the unit and broke out of it³¹²³.

Cupboard tests

21. A replica cupboard was constructed, to the dimensions of the incident cupboard. The arrangement of shelves within the cupboard was reproduced and the contents of the cupboard were, so far as possible, replicated³¹²⁴.

22. There were two significant differences between the replica and the real situation:-

22.1. No aerosols were included amongst the contents of the cupboard³¹²⁵.

22.2. The cupboard doors were left fully open during the test³¹²⁶.

23. The distribution board was connected to the mains supply. The outputs from a MEM and Merlin Gerin MCB were connected to light bulbs so that the tripping of those two circuit breakers could be identified³¹²⁷.

24. A fire was ignited beneath the distribution board using two Number 7 cribs and a small amount of accelerant³¹²⁸.

25. Notwithstanding the differences in the setup, this test produced internal and external damage to the distribution board which was strongly reminiscent of the damage seen on the incident distribution board, although the internal parts were not as badly affected and the heating effects were asymmetrical³¹²⁹.

³¹²³ Stuart Jagger, 19 March 2010, am, pp. 41-43.

³¹²⁴ Stuart Jagger, 19 March 2010, am, pp. 45-47.

³¹²⁵ Stuart Jagger, 19 March 2010, am, pp. 47-48.

³¹²⁶ Stuart Mortimore, 19 March 2010, am, pp. 48-51.

³¹²⁷ Stuart Jagger, 19 March 2010, am, pp. 51-52.

³¹²⁸ Stuart Jagger, 19 March 2010, am, pp. 52-57.

³¹²⁹ John Madden, 30 March 2010, am, pp. 32-34

26. The flames were substantially in contact with the distribution board at about 14 minutes after ignition³¹³⁰. As the fire developed, the flames were greater in vertical extent towards the back of the cupboard. However, if the lefthand door had been shut, one would expect flames also to play up the front left hand corner as well³¹³¹. This would have resulted in faster development of the fire³¹³².

Note to Chapter 31

There is nothing in the submissions on behalf of interested parties which call for comment.

³¹³⁰ Stuart Jagger, 19 March 2010, am, pp. 72-73.

³¹³¹ Stuart Jagger, 19 March 2010, am, pp. 73-75.

³¹³² Stuart Jagger, 19 March 2010, am, p. 75; see also Chapter 33 (formerly 28), paras. 6-8.

CHAPTER 31: DEVELOPMENT OF THE FIRE: THE BRE WORK

Introduction

1. The Building Research Establishment carried out a series of reconstruction experiments with a view to investigating and learning lessons from the fire at Rosepark. Of most importance from the point of the view of understanding the development of the fire during the actual incident was the reconstruction undertaken on 17 June 2004, reported in Production 1458 as Test 1.

The test rig

2. Test 1 involved a full-scale reconstruction of corridors 3 and 4 and the adjoining rooms³¹³³. Care was taken to replicate the physical layout of the relevant part of the building and the potential fuels available. For example:

2.1. The reconstruction was built (both as to layout and as to the nature of the construction) in accordance with the building warrant drawings approved for the alteration to produce en suite bathrooms in 1993³¹³⁴.

2.2. The types of doors, nature of wall linings and other materials were based on information provided by Strathclyde Police³¹³⁵; indeed efforts were made to source the exact materials if that was possible³¹³⁶. In particular, the bedroom doors were ordinary hollow core doors and not fire rated doors³¹³⁷..

2.3. Chairs of general similar construction and materials as Crown Labels 768 and 773 (the upholstered chairs) which were in the corridor at Rosepark were used³¹³⁸.

³¹³³ Martin Shipp, 13 April 2010, am, pp. 146-147.

³¹³⁴ Martin Shipp, 13 April 2010, am, pp. 113-116.

³¹³⁵ Martin Shipp, 13 April 2010, am, p. 114

³¹³⁶ Kenneth Macleod, 12 August 2010, p. 86.

³¹³⁷ Martin Shipp, 14 April 2010, am, p. 48.

³¹³⁸ Joint Minute, paras. 158, 159, 161.

- 2.4. Of the bedroom doors in corridor 4 only doors 10 and 11 were closed. Of those in corridor 3, the doors to rooms 4, 6 and 19 were closed³¹³⁹.
- 2.5. Closed doors were installed with gaps based on measurements taken on the lower floor at Rosepark³¹⁴⁰.
- 2.6. The doors of cupboard A2 were placed in the positions derived from the forensic investigation³¹⁴¹.
3. Cupboard A2 was stocked in a manner as close to the cupboard at Rosepark as possible, based on the information which was available from statements and from the forensic examination of the cupboard³¹⁴². Owing to the mis-labelling of one bag of recoveries, a quantity of aerosols was placed on shelf 3 which should have been on shelf 5.
4. Instrumentation was placed so as to record temperature at various locations throughout the reconstruction: at ceiling and bed height in bedrooms; and at various heights within cupboard A2, in corridor 4 outside room 17, outside room 8 and outside room 15, within rooms 11 and 15, and in corridor 3 outside room 19.
5. Instrumentation was placed in corridor 4 outside room 15, and within rooms 11 and 15 and in corridor 3 outside room 19 to measure continuously carbon dioxide, carbon monoxide and oxygen. Instrumentation was also placed within rooms 11 and 15 and in corridor 3 outside room 19 to measure acid gases, such as hydrogen cyanide³¹⁴³.
6. Smoke detectors were installed at various locations, including in cupboard A2³¹⁴⁴.

³¹³⁹ Martin Shipp, 13 April 2010, pm, p. 6, under reference to Pro 1458, p. 130,

³¹⁴⁰ Martin Shipp, 13 April 2010, am, pp. 118-119.

³¹⁴¹ Martin Shipp, 13 April 2010, am, pp. 145-146, pm, pp. 6-7.

³¹⁴² Kenneth Macleod, 12 August 2010, am, pp. 87-88.

³¹⁴³ Martin Shipp, 13 April 2010, am, pp. 155-160, pm, pp. 1-9, under reference to Pro 1458, pp. 130, 133-136.

³¹⁴⁴ Martin Shipp, 13 April 2010, pm, pp. 9-11, under reference to Pro 1458, p. 137.

7. No attempt was made in this reconstruction to replicate the ventilation system at Rosepark.

Visual description of the test

8. A fire was ignited at the left side of the cupboard, at low level, using two number seven cribs, which are standardized ignition sources³¹⁴⁵. The resulting events were filmed from various angles³¹⁴⁶. Camera A was located at the south-west fire door looking up the corridor towards the corner; Camera B had a view directly through the door of room 9 looking towards cupboard A2; Camera C was at the corner looking generally towards cupboard A2; Camera D was positioned at the door of room 8; Camera E was located to obtain a direct view of cupboard A2 through the door of room 7; and Camera F was located next to the corridor 3/4 fire door looking towards the corner³¹⁴⁷. The following points may be noted from the video footage:

8.1. Camera F: At 1 minute 25 seconds from ignition wisps of smoke were beginning to emerge from the cupboard at a high level and drift across the ceiling immediately in front of the cupboard³¹⁴⁸.

8.2. F: Prior to 2 minutes 26 seconds smoke continue to emerge from the upper part of the door, becoming slightly thicker. There was a slight build up of hazy smoke at high level around the corner³¹⁴⁹.

8.3. B: At 2 minutes 32 seconds, more smoke could be seen beginning to emerge from the cupboard³¹⁵⁰.

³¹⁴⁵ Martin Shipp, 13 April 2010, am, pp. 151-152.

³¹⁴⁶ Label 1564; Martin Shipp, 13 April 2010, am, pp. 11-15, pm, pp. 29ff.

³¹⁴⁷ See Pro 1458, p. 138.

³¹⁴⁸ Martin Shipp, 14 April 2010, am, pp. 2-5; with 13 April 2010, pm, p. 78 (view from Camera E a little later).

³¹⁴⁹ Martin Shipp, 14 April 2010, am, pp. 5-6; along with 13 April 2010, pm, p. 50.

³¹⁵⁰ Martin Shipp, 13 April 2010, pm p. 52.

8.4. Camera A: At 2 minutes 40 seconds, smoke could be seen moving above Chair 2³¹⁵¹.

8.5. F: A noticeable dark layer of smoke had developed along the ceiling in corridor 4A³¹⁵². A: At 2 minutes 55 seconds black smoke could be seen above Chair 2³¹⁵³.

8.6. B: At 3 minutes 6 seconds, there was a sudden burst of smoke from the cupboard, perhaps indicating an aerosol rupturing without exploding³¹⁵⁴.

8.7. A: At 3 minutes 23, layers of smoke could be seen in corridor 4B building up at the ceiling and reaching down above the top of the doors³¹⁵⁵. Likewise, by 3 minutes 40 seconds, on Camera F, the layer of smoke in corridor 4A was becoming thicker and deeper from the ceiling down and appeared to be moving into corridor 4B. By this time the fire had spread across the full width of the cupboard³¹⁵⁶.

8.8. C, E and F: At 3 minutes, 48 seconds and shortly afterwards, flames could be seen coming out of the cupboard at a relatively high level, indicating that the fire was beginning to affect materials the full height of the cupboard³¹⁵⁷.

8.9. B: From 3 minutes 6 seconds until 4 minutes 8 seconds, smoke could be seen emerging from the upper part of the cupboard and rising up to the ceiling³¹⁵⁸.

8.10. C: from 3 minutes 48 seconds to 4 minutes 21 seconds flames could be seen licking out at the high level of the cupboard and spreading across the ceiling a bit³¹⁵⁹.

³¹⁵¹ Martin Shipp, 13 April 2010, pm, pp. 33-36.

³¹⁵² Martin Shipp, 13 April 2010, pm, p. 7

³¹⁵³ Martin Shipp, 13 April 2010, pm, p. 36

³¹⁵⁴ Martin Shipp, 13 April 2010, pm, pp. 52-53.

³¹⁵⁵ Martin Shipp, 13 April 2010, pm, p. 37

³¹⁵⁶ Martin Shipp, 14 April 2010, am, pp. 7-8.

³¹⁵⁷ Martin Shipp, 13 April 2010, pm, p. 79; 14 April 2010, am, p. 9-10, 26.

³¹⁵⁸ Martin Shipp, 13 April 2010, pm, pp. 53-54

8.11. F: At 4 minutes 10 seconds, the small finger of flame at the top part of the cupboard door appeared to have got larger, indicating that the cupboard was beginning to fill with flames and the fire was beginning to spill out of the cupboard into the corridor³¹⁶⁰. The layer of smoke in the corridor was sharply defined, indicating that the smoke was quite hot³¹⁶¹.

8.12. B, E and F: At 4 minutes 23 seconds, a sudden flare of flame emerged from the cupboard about half way down the cupboard, on an aerosol exploding or bursting. The flames emerging at the top of the cupboard had by this point been spreading across the ceiling; following the aerosol explosion they seemed to become much more substantial³¹⁶².

8.13. F: At 4 minutes 33 seconds, the flames appeared to be burning more fiercely and vigorously and emerging from the top of the cupboard, licking across the ceiling³¹⁶³.

8.14. C: By 4 minutes 40 the flames had burst out of the cupboard and were spreading from the upper half of the cupboard across the walls and burning the wallpaper and ceiling materials³¹⁶⁴. B: At 4 minutes 42 the right hand cupboard door swung open, in response to an aerosol rupturing³¹⁶⁵. On Camera A, meantime, the layer of smoke could be seen getting deeper and moving towards the far end of the corridor³¹⁶⁶.

8.15. B: At 4 minutes 50 seconds, there was sudden flaring as a result of an aerosol bursting³¹⁶⁷.

³¹⁵⁹ Martin Shipp, 13 April 2010, pm, p. 62; see also p. 55 (Camera B).

³¹⁶⁰ Martin Shipp, 14 April 2010, am, pp. 10-11.

³¹⁶¹ Martin Shipp, 14 April 2010, am, pp. 11-12.

³¹⁶² Martin Shipp, 13 April 2010, pm, pp. 79-80, 14 April 2010, am, pp. 12-14, 26.

³¹⁶³ Martin Shipp, 14 April 2010, am, p. 15

³¹⁶⁴ Martin Shipp, 13 April 2010, pm, pp. 62-63.

³¹⁶⁵ Martin Shipp, 13 April 2010, pm, pp. 56-57, 80-81, 14 April 2010, am, p. 18.

³¹⁶⁶ Martin Shipp, 13 April 2010, pm, pp. 38-39.

³¹⁶⁷ Martin Shipp, 13 April 2010, pm, p. 57.

8.16. E: At 4 minutes 56 seconds, the flaming seen coming from the cupboard was becoming more and more vigorous and there seemed to be burning at quite a low level³¹⁶⁸. The flames were clearly being deflected by the door leaves³¹⁶⁹.

8.17. B: At 5 minutes 10 seconds, gases could be seen emerging from the headrest of the upholstered chair, Chair 2³¹⁷⁰, indicating that that chair was getting hot and was likely to ignite soon. At about the same time, on Camera A one could see smoke building up at and below ceiling level along the whole length of corridor 4B from the corner to the end³¹⁷¹.

8.18. A: At 5 minutes 13 seconds, flames appeared along the ceiling of the corridor³¹⁷².

8.19. F: Just before 5 minutes 17 seconds there were explosions characteristic of two further aerosols becoming involved in the fire³¹⁷³.

8.20. E: At 5 minutes 20 seconds the fire was burning from top to bottom inside the cupboard and flames were coming through the gap along the hinged edge of the door³¹⁷⁴.

8.21. A: At 5 minutes 27 seconds, the flames were spreading into corridor 4B³¹⁷⁵.

8.22. F: At 5 minutes 28 seconds, burning material was falling from a high level and continuing to burn on the floor. Burning material within the cupboard was falling to a low level and spilling out of the cupboard³¹⁷⁶.

³¹⁶⁸ Martin Shipp, 13 April 2010, pm, p. 81.

³¹⁶⁹ Martin Shipp, 13 April 2010, pm, pp. 81-82.

³¹⁷⁰ Martin Shipp, 13 April 2010, pm, pp. 57-58.

³¹⁷¹ Martin Shipp, 13 April 2010, pm, p. 41.

³¹⁷² Martin Shipp, 13 April 2010, pm, p. 41.

³¹⁷³ Martin Shipp, 14 April 2010, am, p. 20.

³¹⁷⁴ Martin Shipp, 13 April 2010, pm, pp. 82-83.

³¹⁷⁵ Martin Shipp, 13 April 2010, pm, p. 42.

³¹⁷⁶ Martin Shipp, 14 April 2010, am, pp. 20-21.

8.23. A: At 5 minutes 42 seconds, the wallpaper was beginning to burn, while the smoke had reached quite a depth down from the ceiling and was getting much blacker³¹⁷⁷.

8.24. C: At 5 minutes 39 seconds, the fire seemed to be involving the surface coverings of the wall of corridor 4A³¹⁷⁸.

8.25. F: By 5 minutes 51 seconds, the whole corridor around cupboard A2 was becoming involved in the fire. The right hand door of the cupboard was blown even further open by a pressure blast³¹⁷⁹.

8.26. A: At 6 minutes 6 seconds, the flame was clearly entering corridor 4B, and the materials (light fittings, smoke detectors, other plastic fittings) were burning and falling to the floor. It was quite smoky even low down³¹⁸⁰. E and F: By this time the smoke layer was coming quite low down such that by 6 minutes 15 seconds the view of the cupboard from camera E was entirely obscured³¹⁸¹.

8.27. A: At 6 minutes 34 seconds, the flames were reaching to the far end of corridor 4B³¹⁸².

8.28. D: At 6 minutes 47 seconds, volatile gases could be seen evolving from the top of Chair 2³¹⁸³.

8.29. D: At 7 minutes 12 Chair 2 and the table at the corner of the corridor had spontaneously ignited³¹⁸⁴.

8.30. D: At 7 minutes 39 seconds a lot of material at low level in the corridor was burning³¹⁸⁵.

³¹⁷⁷ Martin Shipp, 13 April 2010, pm, pp. 42-43.

³¹⁷⁸ Martin Shipp, 13 April 2010, pm, p. 64

³¹⁷⁹ Martin Shipp, 14 April 2010, am, pp. 21-22.

³¹⁸⁰ Martin Shipp, 13 April 2010, pm, p. 44

³¹⁸¹ Martin Shipp, 13 April 2010, pm, pp. 83-84, 14 April 2010, am, pp. 22-23.

³¹⁸² Martin Shipp, 13 April 2010, pm, p. 45.

³¹⁸³ Martin Shipp, 13 April 2010, pm, pp. 74-75.

³¹⁸⁴ Martin Shipp, 13 April 2010, pm, pp. 75-76.

9. After about 7 minutes the temperatures in the reconstruction rig began to fall³¹⁸⁶. The fire burned itself out after between seven and eight minutes as a result of oxygen starvation³¹⁸⁷. The corridors remained filled with smoke³¹⁸⁸.

Temperature data

10. The temperature data obtained in this reconstruction disclosed the following:

10.1. Within the cupboard, the temperature peaked at around 950 degrees Celsius after six minutes³¹⁸⁹. The fire immediately then started to die back, with temperatures in the cupboard being 130 degrees Centigrade at 15 minutes and 89 degrees at 30 minutes³¹⁹⁰.

10.2. The fire preferentially spread from the cupboard towards corridor 4B, where peak temperatures of 990 degrees Centigrade are shown near room 8 at 7 minutes and 840 degrees near room 15 at 7 minutes. In the other direction, temperature reached 760 degrees near room 17 at 6.3 minutes. The temperatures within the corridor varied significantly only the height of the corridor, peaking at just over 200 degrees at low level outside room 17³¹⁹¹.

10.3. Within the rooms with open doors in corridor 4, ceiling temperatures reached 540 degrees and nose height temperatures reached 300 degrees. The temperature rise diminished, and was delayed, the further the room was from the fire. The temperature rise was also delayed at lower levels within the rooms as compared with higher levels. For example, inside room 15 (which had an open door), after about 4 minutes the temperatures rose quite steeply with peak temperatures at about 7 minutes of about 300 degrees Celsius at high level

³¹⁸⁵ Martin Shipp, 13 April 2010, pm, p. 76.

³¹⁸⁶ Martin Shipp, 14 April 2010, am, pp. 30-31.

³¹⁸⁷ Martin Shipp, 13 April 2010, am, p. 19, pm, p. 77.

³¹⁸⁸ Martin Shipp, 13 April 2010, pm, pp. 45-48, 77.

³¹⁸⁹ Martin Shipp, 14 April 2010, am, pp. 40, 73.

³¹⁹⁰ Martin Shipp, 14 April 2010, am, p. 73

³¹⁹¹ Martin Shipp, 14 April 2010, am, pp. 42-47, 73-74.

within the room and of over 100 degrees Celsius at low level within the room³¹⁹².

10.4. Within the rooms with closed doors ceiling temperatures reached only 30 degrees Centigrade, and nose height temperatures reached only 26 degrees. For example, inside room 11 (which had a closed door), for at least 5 minutes there was no penetration of heat into the room. After about 5 minutes, the temperature at a high level in the room rose to about 30 degrees Celsius. At lower levels within the room the temperature rise was less³¹⁹³. The temperature barely rose above ambient temperature³¹⁹⁴.

Gas measurements

11. The data from the gas measuring instrumentation were analysed by Professor Purser, and from that data he derived graphs showing the concentration over time at various locations of oxygen, carbon monoxide, carbon dioxide and hydrogen cyanide³¹⁹⁵.

11.1. In corridor 4 the concentration of carbon dioxide and carbon monoxide built up to a peak at around 7 minutes. The oxygen concentration fell from about 21% to about 3%³¹⁹⁶.

11.2. Inside room 15 (which had an open door) the conditions generally mirrored the conditions in the corridor, albeit they were not quite so bad. They were shown graphically on page 90 (manuscript page 98) of Production 1458. At about 6.5 minutes from ignition the oxygen concentration in the atmosphere of the room dropped precipitately, and at the same time the concentrations of carbon monoxide and carbon dioxide rose very rapidly³¹⁹⁷.

³¹⁹² Martin Shipp, 14 April 2010, am, pp. 50-52, 74-75.

³¹⁹³ Martin Shipp, 14 April 2010, am, pp. 48-50, 75.

³¹⁹⁴ David Purser, 14 June 2010, am, pp. 107-108.

³¹⁹⁵ David Purser, 14 June 2010, am, pp. 84-88, 96-99.

³¹⁹⁶ Martin Shipp, 14 April 2010, am, p. 54

³¹⁹⁷ Martin Shipp, 14 April 2010, am, pp. 58-59; David Purser, 14 June 2010, am, pp. 94-96, 136.

11.3. Although direct measurements were not taken in other rooms with open doors in corridor 4, having regard to the measurements taken at various locations, it would be reasonable to conclude that all the rooms in corridor 4 with open doors were subjected to the same conditions, albeit with a slight time lag for rooms further from the fire³¹⁹⁸.

11.4. Inside room 11 (which had a closed door), there was a very slight increase in carbon dioxide or monoxide concentration entered the room and very slight oxygen depletion³¹⁹⁹. The conditions were shown graphically on page 92 (manuscript page 100) of production 1458³²⁰⁰. These indicated very slow penetration of the high concentrations of gases in the corridor, percolating through gaps around the doors. The concentrations of toxic gases in the room were very low³²⁰¹.

11.5. The conditions measured in the BRE Test in corridor 3 were shown graphically on page 102 (manuscript) of Production 1458. By reference to the carboxyhaemoglobin measurements taken from residents it can be concluded that the conditions in corridor 3 were in fact worse than those disclosed by the BRE Test 1³²⁰².

Note to Chapter 31

There are no submissions from interested parties that call for comment.

³¹⁹⁸ David Purser, 14 June 2010, am, pp. 86, 134, 136.

³¹⁹⁹ Martin Shipp, 14 April 2010, am, pp. 56-57

³²⁰⁰ David Purser, 14 June 2010, am, pp. 106-108.

³²⁰¹ David Purser, 14 June 2010, am, pp. 106-108.

³²⁰² David Purser, 14 June 2010, am, pp. 114-124; see further Chapter 40 (formerly 34A), paras. 2.3, 2.4, 6, 7.

CHAPTER 32: DEVELOPMENT OF THE FIRE FROM IGNITION TO FLAMING COMBUSTION

Introduction

1. BRE Test 1 involved the ignition of two number 7 cribs. A smoke detector was activated almost immediately³²⁰³.

2. In a real fire (unless it had been deliberately set) there would have been some process of fire development before the fire reached a stage equivalent to two number 7 cribs³²⁰⁴. This is of potential relevance for the following reasons:-

2.1. In the real fire, there would have been some period of time between ignition and the point when the fire reached a stage equivalent to two number 7 cribs³²⁰⁵.

2.2. In the real fire, the smoke detector would have activated at a point in the fire development before it reached a stage equivalent to two number 7 cribs³²⁰⁶.

2.3. The theoretically possible additional period of fire development before reaching the stage equivalent to two number 7 cribs is extremely variable³²⁰⁷.

2.4. However the actual additional period of fire development can be identified rather more closely – and limited to no more than two minutes - by reference to three considerations:-

2.4.1. The presence of a smoke detector in the ceiling of cupboard A2.

2.4.2. The real evidence of the clock from room 12.

³²⁰³ Stuart Mortimore, 15 March 2010, am, pp. 123-124, pm, p. 28.

³²⁰⁴ Martin Shipp, 14 April 2010, am, pp. 24-25; 16 April 2010, am, pp. 64-65.

³²⁰⁵ Martin Shipp, 14 April 2010, pm, pp. 62-63, 75-76

³²⁰⁶ Martin Shipp, 16 April 2010, am, p. 132.

³²⁰⁷ Martin Shipp, 16 April 2010, am, pp. 130-135.

2.4.3. The evidence of Yvonne Carlyle.

2.5 In relation to the presence of the smoke detector, there are two issues to be addressed: (1) the speed of activation of the smoke detector after ignition; and (2) the time which would have elapsed between the activation of the smoke detector and a fire equivalent to two number 7 cribs.

2.6. Conclusions drawn on the basis of the timings in BRE Test 1 require to be modified to take these considerations into account.

Smouldering fires generally

3. Depending on circumstances, a fire may smoulder for some time before flaming combustion occurs³²⁰⁸. For example, a newly ignited cigarette of full length would typically burn for up to about 20 minutes³²⁰⁹ and, if it has gone down the back of a sofa or armchair, it could take an hour or more before flaming combustion occurs³²¹⁰. Dr. Jagger referred to an incident reported in the literature in which flaming erupted in a rubbish container 192 minute after an ashtray had been emptied into it. This was the longest period between discard of smoking materials and flaming ignition which he had come across referred to in the literature which he had examined³²¹¹.

Speed of activation of smoke detector after ignition

4. The smoke detector in the ceiling of cupboard A2 would have detected a smouldering fire in the lower left hand corner of the cupboard within a few minutes³²¹². Mr. Cutler stated that this would happen almost immediately. He stated that one could not envisage a smouldering process at the bottom left hand side of the cupboard which had not reached the stage of flaming combustion going on for

³²⁰⁸ See generally, Stuart Jagger, 23 March 2010, am, pp. 53ff, under reference to Pro 1987.

³²⁰⁹ Stuart Mortimore, 16 March 2010, pm, pp. 53-54.

³²¹⁰ Stuart Mortimore, 16 March 2010, pm, pp. 53-54.

³²¹¹ Stuart Jagger, 23 March 2010, am, pp. 81-82.

³²¹² Jeffrey Cutler, 15 July 2010, am, pp. 34-35, 40-42.

minutes before the detector would respond³²¹³. He stated that the detector would respond within the first minute or two of a smouldering process³²¹⁴. Mr. Todd was content to accept Mr. Cutler's opinion that a fire did not smoulder for very long and stated that he would not have been surprised if it were a period of "a minute or two, maybe more"³²¹⁵.

4.1 Ionisation detectors (such as the detector in the ceiling of cupboard A2) operate essentially by counting the number of smoke particles entering the detector³²¹⁶.

4.2 It follows that, in order for an ionization detector to respond to a fire: (a) the fire must have generated smoke particles; and (b) sufficient smoke particles must have traveled to the location of the ionization detector and entered the detector³²¹⁷.

4.3 The time which it takes for the combustion product to reach the detector will be affected by the nature and size of the space in which the detector is located³²¹⁸.

4.4 If a fire starts inside a cupboard the particle density will fill the volume relatively quickly as compared with a large room, with a consequent effect on the speed of response of a detector within the cupboard³²¹⁹.

4.5 Smoke from a smouldering fire would rise to the top of the cupboard by reason of buoyancy effects due to heat³²²⁰.

³²¹³ Jeffrey Cutler, 15 July 2010, am, p. 40

³²¹⁴ Jeffrey Cutler, 15 July 2010, am, p. 42.

³²¹⁵ Colin Todd, 26 July 2010, pm, pp. 44-50

³²¹⁶ Jeffrey Cutler, 15 July 2010, am, pp. 6-7. For a detailed description of the operation of an ionization detector, see Julian Norris, 6 January 2010, am, pp. 113-114.

³²¹⁷ Julian Norris, 6 January 2010, am, p. 114, pm, p. 12.

³²¹⁸ Julian Norris, 6 January 2010, pm, pp. 12-13.

³²¹⁹ Julian Norris, 6 January 2010, pm, pp. 12-15; Jeffrey Cutler, 15 July 2010, am, pp. 30-32.

³²²⁰ Jeffrey Cutler, 15 July 2010, am, pp. 31-32.

4.6. Any smoke from a fire at the bottom left hand side of the cupboard would have to pass across the detector to reach the extract vent³²²¹.

5. In any event, Mr. Cutler considered it likely, given the speed of development of the fire at Rosepark, that it could not have been incipient for more than one or two minutes. That view would be reinforced if the fire had been started by a spark igniting flammable materials, since “that would actually more likely generate a flaming incipient fire rather than starting with overheating pyrolysis”³²²².

Time from activation of smoke detector to a fire equivalent to two number 7 cribs

6. The period between activation of the smoke detector and a fire which was equivalent to two number 7 cribs was not more than about two minutes. Mr. Mortimore expressed the view that a few minutes would have elapsed between the activation of the smoke detector and a fire equivalent to two number 7 cribs. Likewise, Mr. Shipp expressed the view that after the activation of the alarm it could take a number of minutes before the fire developed to a size where it could be equated to two cribs³²²³. On the other hand, Mr. Cutler expressed the view that for a fire to be as well developed as the Rosepark fire had been within eight minutes, it could not have been incipient for more than one or two minutes. On that basis, he took the view that “The fire probably started at much the same time as the first alarm was signalled”³²²⁴. This was also the approach taken by Professor Purser³²²⁵ and Colin Todd agreed with this – expressing the opinion that “I can’t see that it could have been more than the order of a minute or two”³²²⁶.

³²²¹ Jeffrey Cutler, 15 July 2010, am, p. 34.

³²²² Jeffrey Cutler, 15 July 2010, am, pp. 43, 47

³²²³ Stuart Mortimore, 17 March 2010, am, p. 97; Martin Shipp, 14 April 2010, pm, p. 79-80. .

³²²⁴ Jeffrey Cutler, 15 July 2010, am, p. 43.

³²²⁵ David Purser, 15 June 2010, am, pp. 109-124.

³²²⁶ Colin Todd, 26 July 2010, pm, pp. 49-51.

7. There is a piece of evidence which would support the view that any adjustment should not be more than about two minutes. That piece of evidence is the clock from room 12.

7.1. A plastic battery-operated clock was positioned in the wall in room 12. Following the fire that clock was examined and it was found that the plastic face had melted stopping the hands, which were at 04.40³²²⁷.

7.2. In BRE Test 1, the temperature in room 12 at ceiling height rose, as in other rooms with open doors off corridor 4, after 4 minutes to a peak between 7 and 8 minutes. The temperatures at lower levels also rose but started to do so at a somewhat later point in time than the temperature at higher level. The temperature profiles for room 12 can be seen on the diagram on p. 155 of Pro 1458 (p, 154 manuscript)³²²⁸.

7.3. The period of 12 minutes between the smoke detector sounding at 4.28 am and the time when the clock in room 12 apparently stopped by reason of the effects of heat on the plastic at 4.40 am would be generally consistent with:

7.3.1. A fire generally of the sort observed in the BRE test of a duration of 7-10 minutes seen in the three BRE tests; preceded by

7.3.2. A period of a few minutes (between 2 and 5) after the activation of the smoke detector and before the fire had reached a stage equivalent to two number 7 cribs.

7.4. The shorter end of that range would be consistent with Mr. Cutler's evidence.

7.5. The shorter end of the range would also be consistent with the evidence of Professor Purser. On the basis of the BRE Test 1 results, he concluded that the effects of toxic gases would have resulted in the death of residents of open

³²²⁷ David Robertson, 9 February 2010, am, pp. 103-106.

³²²⁸ Martin Shipp, 14 April 2010, am, p. 65.

rooms in corridor 4 before the effects of heat caused pain or burns³²²⁹. On the basis of the BRE Test 1 results, he estimated that Margaret Lappin, the occupant of room 12, died 9 minutes after the fire alarm sounded. He assumed that the fire alarm sounded when the fire was at a point which corresponded to ignition of the BRE Test 1 and so placed her death at 04.37 am. If one accepts Professor Purser's evidence that the effects of toxic gases would have resulted in death before the effects of heat caused pain or burns, Mrs. Lappin must (even allowing for the fact that the clock was higher on the wall than bed height) have died before 04.40.

Yvonne Carlyle's evidence

8. In considering how long before the fire alarm sounding there had been a fire in cupboard A2 it is also necessary to take into account Ms Carlyle's evidence. She was in the vicinity of the sluice room and cupboard A2 a few minute before the fire alarm sounded and not earlier than 04.21 am. She did not notice anything unusual. In particular she did not smell anything unusual³²³⁰.

9. Although someone passing along the corridor with a smouldering fire in cupboard A2 might (depending, for example, on his or her sense of smell) not have noticed anything unusual, it would be consistent with her evidence taken along with the conclusion drawn above that only a few minutes elapsed between ignition and the development of a fire to a stage equivalent to the two flaming cribs used to ignite the fire in the BRE tests.

Note to Chapter 32

There are no submissions from interested parties which call for comment.

³²²⁹ David Purser, 14 June 2010, am, pp. 137-140.

³²³⁰ Yvonne Carlyle, 27 November 2009, am, p. 133.

CHAPTER 33: BRE TEST 1 A REASONABLE REPRESENTATION OF THE FIRE AT ROSE PARK

BRE Test 1 was representative of the fire at Rosepark: corridor 4

1. The following considerations support the proposition that the BRE Test 1 was – so far as corridor 4 was concerned - reasonably representative of the fire at Rosepark:

1.1. The forensic pattern of burning left at the end of the reconstruction in Test 1 was very similar to that found after the fire at Rosepark³²³¹. According to Mr Shipp, the similarity in the pattern of damage gives confidence: (a) that the assumptions which had been made in setting up the reconstruction were well-founded; and (b) that the temperature and gas-sampling measurements are reasonably representative of the position in the fire at Rosepark³²³².

1.2. The temperatures recorded by fire crews attending the actual scene and entering the building around the same time after ignition were similar³²³³.

2. The actual condition of the residents in corridor 4 was consistent with the effects which would have been predicted from the BRE Test 1 data.

2.1. All of the residents in rooms with open doors had, as predicted, sustained high carboxyhaemoglobin levels, indicative of severe exposure to carbon monoxide and other toxic combustion products, and consistent with the effects of a short, rapidly developing, vitiated fire, such as was seen in BRE Test 1³²³⁴.
Furthermore:

³²³¹ Martin Shipp, 13 April 2010, am, p. 86; pm, pp. 22-.29, 14 April 2010, am, p. 33.

³²³² Martin Shipp, 13 April 2010, pm, pp. 25-26.

³²³³ Martin Shipp, 13 April 2010, am, p. 86, 14 April 2010, am, pp. 31-32.

³²³⁴ David Purser, 15 June 2010, am, pp. 106, 108-109; see further Chapter 40 (formerly Chapter 34A).

2.1.1. There was no evidence that those deceased who were found in their beds had moved or tried to get out of bed. Their appearance was consistent with having died in their sleep. This would be consistent with the effects which Professor Purser predicted from the data generated in the BRE Test 1 – namely rapid loss of consciousness followed swiftly by death.

2.1.2. Two residents may have got out of bed but collapsed on the floor. Again, this would be consistent with Professor Purser's description of the effects of carbon monoxide poisoning.

2.1.3. Professor Purser predicted from the temperature data in the BRE Test 1 that the deceased in open door rooms in corridor 4 would not have suffered discomfort due to the effects of heat before they died, but would have been sufficient to cause post mortem burns after about 15-20 minutes³²³⁵. At post mortem examination some of these deceased were, indeed, found to have sustained burns, but the pathologist's conclusion was that these were probably sustained post mortem.

2.2. There was a reasonable correlation between:

2.2.1.1. The carboxyhaemoglobin doses predicted by Professor Purser from the BRE Test 1 results as having been sustained by the residents from corridor 4 who were rescued alive and taken to hospital; and

2.2.1.2. The carboxyhaemoglobin doses which Professor Purser estimated (by back calculating from measurements taken on arrival to hospital) those two residents to have sustained when they were taken from the locus³²³⁶.

2.3. In the case of Robina Burns, the actual level was 43-49%, with the actual figure likely to be at the lower end of the spectrum. The predicted figure was 42-56%.

³²³⁵ David Purser, 14 June 2010, pm, pp. 64-65.

³²³⁶ David Purser, 14 June 2010, am, pp. 115-122, 15 June 2010, am pp. 104-107.

2.4. In the case of Isabella MacLeod the actual level was 43-57% with the actual figure likely to be at the lower end of the spectrum. The predicted figure was 34-41% but this would require to be adjusted upwards to allow for: (a) her low body weight; and (b) the evidence of heat penetration through her bedroom door.

3. There is further circumstantial evidence which lends further weight to the validity of BRE Test 1 so far as Corridor 4 was concerned.

3.1. The smoke detector in cupboard A2 activated at or about 04.28. For reasons explained above, this occurred not more than two minutes before the fire reached a stage of development equivalent to ignition of the BRE Test 1.

3.2. By about 04.34 am the fire in the cupboard had developed sufficiently rapidly to cause the extract fan to fail by one of the mechanisms mentioned above. One might compare the Test 1 data on the relationship between temperature and time within the cupboard shown on p. 144 of Pro 1458.

3.3. At or about 04.38 am Mr Norton and Ms Carlyle went up the south west stairwell. They found some smoke at the top of the stairwell and Mr Norton heard a crackling sound. This would be consistent with a fire which has broken out of the cupboard and has spread along corridor 4B, with smoke reaching the end of corridor 4B. One might compare what was seen on Camera A in the BRE Test 1 at 6 minutes 6 seconds and 6 minutes 34 seconds.

3.4. At about 04.40 am temperatures hot enough to melt plastic reached down from the ceiling to the level of the clock in room 12. For the reasons set out above this would be consistent with: (i) a fire which developed generally in the same manner as the fire in BRE Test 1; preceded by (ii) a period of no more than two minutes from activation of the alarm to a fire equivalent to ignition of the BRE test.

3.5. It is known, from the protection patterns on the carpet at Rosepark, that the right hand cupboard door changed its position from being slightly ajar to being

wide open in the course of the fire. Just such a phenomenon was seen in BRE Test 1.

3.6. It is known that the corridor 3/4 fire door at Rosepark was opened at some point during the fire. During BRE Test 1 fire doors were indeed seen to open and close during the test.

4. That BRE Test 1 was a good model of the fire which actually developed at Rosepark is further supported by these considerations:

4.1. Evident care was taken to replicate to a high degree the physical layout of the relevant part of the building and the potential fuels available.

4.2. Although there were some differences in the setup which may well have affected the detailed development of the fire within the cupboard, these would not be likely to affect the overall picture significantly.

4.2.1. The connection of cupboard A2 to the extract ventilation system might have accelerated the development of the fire in the cupboard slightly, but would have had no significant effect on the overall development of the fire outside the cupboard³²³⁷.

4.2.2. The mis-location of a quantity of aerosols on shelf 3 instead of on shelf 5 would be liable to affect the detail of the growth of the fire, but would not affect the overall pattern of fire development. There was at least one aerosol on an open shelf, and could have become involved in the fire at an early stage. Further, about 5-7 minutes into the BRE Test 1 fire the temperatures were so high at all levels of the cupboard that any aerosol in the inner cupboard would also have been affected. The peak temperature might have been delayed if the aerosols were in fact in the inner cupboard.

³²³⁷ Martin Shipp, 14 April 2010, am, p. 84.

But the effects of the fire beyond the cupboard would not otherwise have been affected³²³⁸.

4.2.3. The precise distribution of the fuels within the cupboard would affect the detailed development of the fire within the cupboard. But this would not have had a significant difference on the development of the fire once it had broken out into the corridor although it might affect the timings by a minute or two either way³²³⁹.

BRE Test 1 did not replicate the conditions in corridor 3

5. During the reconstruction the fire door between corridor 3 and corridor 4 was left slightly ajar from the outset (leaving a gap of 20 mm between the edge of the door and the doorframe)³²⁴⁰. Toxic fire gases penetrated corridor 3 and were measured. The conditions measured in corridor 3 were not, however, consistent with the evidence from Rosepark itself.

5.1. The pattern of burning, heat and smoke damage in corridor 3 in the reconstruction was less than that at Rosepark itself³²⁴¹.

5.2. The carboxyhaemoglobin doses which Professor Purser predicted from the BRE Test 1 results would have been sustained by occupants of open rooms in corridor 3 were about half the figures which he obtained by back calculating to the time of rescue from the actual levels of carboxyhaemoglobin measured on arrival at hospital³²⁴².

It may be concluded that at Rosepark, additional smoke penetrated corridor 3 whether because the door was open in such a way as to allow more smoke into the corridor or

³²³⁸ Martin Shipp, 14 April 2010, am, pp. 86-88.

³²³⁹ Martin Shipp, 14 April 2010, am, pp. 88-89.

³²⁴⁰ Martin Shipp, 13 April 2010, am, pp. 144-145, pm, pp. 17-18.

³²⁴¹ Martin Shipp, 14 April 2010, am, pp. 34-36

³²⁴² David Purser, 15 June 2010, am, pp. 43-48, 86-87; see Chapter 40 (formerly 34A), paras. 2.3, 2.4, 6, 7.

because there was an alternative route through the ventilation ducting or for both reasons³²⁴³.

The inherent variability of fire behaviour

6. There is an inherent variability in the way in which fire will behave³²⁴⁴. BRE did two further full-scale reconstructions (Tests 2 and 3). In Test 2 the rig was fitted with a sprinkler system. In Test 3 all of the bedrooms were fitted with fire-rated doors which were closed. The fires in these Tests grew in a similar manner to Test 1, although they developed at first rather more slowly and reached peak temperatures at around 10 minutes rather than the 6 minutes seen in Test 1)³²⁴⁵.

7. The HSL at Buxton undertook a test in which a fire was set (using two number 7 cribs) in a cupboard with the same dimensions as cupboard A2 and stocked with similar contents (apart from aerosols). This fire had a significantly slower development and much more extended duration than was observed in the various tests undertaken by the BRE. The most likely explanation for this, according to Mr Shipp, was that in the HSL test the cupboard doors were wide open, while in the BRE tests (as at Rosepark itself), the left hand door was always latched shut and the righthand door either shut or slightly ajar. This would contain the fire and (along perhaps with differences in the layout of the materials) would account for the more severe fires observed in the BRE work³²⁴⁶.

8. Having reviewed this material, Martin Shipp (who had the benefit of having undertaken not only of the three large scale reconstruction tests, but also quite a number of tests in which fires were set in a cupboard of the same dimensions as the cupboard at Rosepark³²⁴⁷) expressed the opinion that “within the context of fire starting with number seven cribs, that our figures of 7 to 10 minutes are probably

³²⁴³ Martin Shipp, 14 April 2010, am, pp. 34-36; David Purser, 15 June 2010, am, pp. 46-48, 60-62.

³²⁴⁴ Martin Shipp, 13 April 2010, am, pp. 96-97, 14 April 2010, am, pp. 92-93.

³²⁴⁵ Martin Shipp, 14 April 2010, am, pp. 93-94, pm, pp. 60-61.

³²⁴⁶ Martin Shipp, 14 April 2010, pm, pp. 52-59

³²⁴⁷ Martin Shipp, 16 April 2010, am, pp. 67-69; 129-130.

more plausible than the Buxton tests³²⁴⁸. Standing the evidence outlined above, I accept Mr Shipp's opinion.

Note to Chapter 33

There were no challenges to these conclusions on behalf of interested parties

³²⁴⁸ Martin Shipp, 14 April 2010, pm, p. 62.

CHAPTER 34: DEVELOPMENT OF THE FIRE: THE ROLE OF AEROSOLS

Aerosol cans: general

1. An aerosol can is a way of containing a product and enabling the consumer to dispense it³²⁴⁹. A typical aerosol can is made of aluminium or steel plate³²⁵⁰.
2. In addition to the product (i.e. the useful contents, such as hairspray or deodorant), a typical aerosol can also contains a propellant³²⁵¹. The most common propellant used today is liquid petroleum gas (“LPG”), which is a mixture of propane and butane³²⁵². LPG would be the typical propellant for an aerosol can containing toiletries³²⁵³. 100g would be the typical amount used³²⁵⁴.
3. The contents of the can are held under pressure, typically 3-4 times atmospheric pressure at ambient temperature³²⁵⁵. When the valve is actuated, liquid contents are discharged from the can. The LPG vaporizes. The product remains in liquid state but forms an aerosol³²⁵⁶.
4. The body of a steel aerosol can is made from steel plate which is cut and rolled to form the body of the can. The two ends are joined by a welded seam³²⁵⁷. The base and top are crimped on³²⁵⁸.
5. The body of an aluminium aerosol can is a monoblock, i.e. made from a single piece of aluminium³²⁵⁹. Only the top requires to be crimped on³²⁶⁰.

³²⁴⁹ Christopher Martin, 29 July 2010, pm, p. 59.

³²⁵⁰ Christopher Martin, 29 July 2010, pm, pp. 60-61.

³²⁵¹ Christopher Martin, 29 July 2010, pm, pp. 59-60.

³²⁵² Christopher Martin, 29 July 2010, pm, pp. 59, 63-64.

³²⁵³ Christopher Martin, 29 July 2010, pm, p. 64.

³²⁵⁴ Christopher Martin, 29 July 2010, pm, p. 78,

³²⁵⁵ Christopher Martin, 29 July 2010, pm, pp. 68-69.

³²⁵⁶ Christopher Martin, 29 July 2010, pm, pp. 59-60.

³²⁵⁷ Christopher Martin, 29 July 2010, pm, pp. 61-62.

³²⁵⁸ Christopher Martin, 29 July 2010, pm, p. 62.

³²⁵⁹ Christopher Martin, 29 July 2010, pm, p. 61.

³²⁶⁰ Christopher Martin, 29 July 2010, pm, p. 62.

Aerosol cans: effects of exposure to heat and direct flame

6. If an aerosol can should be heated, this would cause an increase in the internal pressure of the can³²⁶¹. In those conditions, a pressure may be reached at which the can will fail³²⁶². Should this occur, the can will fail catastrophically³²⁶³.

7. Exposure to heat may cause the base of an aerosol can to bellow³²⁶⁴. Where an aluminium aerosol can fails by reason of exposure to direct flame, it will typically fail either by bursting open or by the top flying off³²⁶⁵.

8. Where a steel aerosol can fails by reason of exposure to direct flame, it will typically fail at the top or bottom crimp. If the bottom crimp fails, the whole can becomes a missile. If the top crimp fails, the cap comes off³²⁶⁶.

9. Aerosols which did not rupture might nevertheless leak fuel into the fire, adding to the overall fuel available³²⁶⁷.

10. These different modes of failure were illustrated in video footage of tests undertaken by the BRE³²⁶⁸.

11. The response of an aerosol can to heat or flame is extremely unpredictable:

11.1. In BRE Test 1, some cans exploded; some leaked; others neither exploded nor leaked³²⁶⁹. The first explosion occurred some 4 minutes 23 seconds after ignition.

³²⁶¹ Christopher Martin, 29 July 2010, pm, pp. 64, 69.

³²⁶² Christopher Martin, 29 July 2010, pm, p. 69.

³²⁶³ Christopher Martin, 29 July 2010, pm, p. 72.

³²⁶⁴ Christopher Martin, 30 July 2010, am, pp. 58-62.

³²⁶⁵ Christopher Martin, 29 July 2010, pm, p. 70.

³²⁶⁶ Christopher Martin, 29 July 2010, pm, pp. 70-71, 30 July 2010, am, pp. 56-58.

³²⁶⁷ Martin Shipp, 14 April 2010, am, pp. 15-17, 26-27.

³²⁶⁸ Label 1569, Track 1306; Martin Shipp, 15 April 2010, am, pp. 72-82.

³²⁶⁹ Martin Shipp, 14 April 2010, am, p. 88.

11.2. In BRE Tests 2 and 3, the first aerosol burst at 8 minutes and 2 seconds and 8 minutes and 21 seconds from ignition respectively, significantly later than in Test 1³²⁷⁰. In Test 2 the explosion of an aerosol caused structural damage to the rig itself³²⁷¹.

11.3. In one of the cupboard tests undertaken by the BRE some aerosols acted as projectiles, one travelling 12 metres and another 14 metres³²⁷².

11.4. In Test 1 of the BRE work on the ventilation ducting, no aerosols exploded³²⁷³.

11.5. In Test 4 of the BRE work on the ventilation ducting, of the 28 aerosols, 14 ruptured. Some rocketed forcefully punching holes in the cupboard walls and ceiling but none penetrated through or caused the cupboard doors to fail³²⁷⁴.

12. If an aerosol can should fail in the context of a fire:

12.1 It would suddenly release a quantity of fuel into the fire, creating a fireball or causing the fire to flare up³²⁷⁵.

12.2 The sudden expansion of the contents as they moved from liquid to gas would cause overpressures, typically an explosion of the type known as a BLEVE (boiling liquid expanding vapour explosion)³²⁷⁶.

These effects can be seen in the video footage from BRE Test 1³²⁷⁷.

³²⁷⁰ Martin Shipp, 14 April 2010, am, pp. 94 (Test 2), 128 (Test 3).

³²⁷¹ Martin Shipp, 14 April 2010, am, pp. 94-95, 98.

³²⁷² Martin Shipp, 14 April 2010, pm, pp. 23-24.

³²⁷³ Martin Shipp, 15 April 2010, am, p. 40

³²⁷⁴ Martin Shipp, 15 April 2010, am, p. 58.

³²⁷⁵ Christopher Martin, 29 July 2010, pm, p. 66.

³²⁷⁶ Martin Shipp, 15 April 2010, am, pp. 78-79; Christopher Martin, 29 July 2010, pm, p. 66

³²⁷⁷ Martin Shipp, 14 April 2010, am, pp. 13-14.

13. Where multiple aerosols fail in the context of a fire, the aerosols typically explode sequentially. In other words, there will be a series of discrete failures, rather than a cumulative blast³²⁷⁸.

Involvement of aerosols in the fire at Rosepark

14. The following aerosol cans found within cupboard A2 had all failed in a manner characteristic of a can exposed to external heating by fire³²⁷⁹:-

14.1. The aerosol can, Label 627³²⁸⁰ (found amongst debris on the floor).

14.2. The two aerosol cans, Label 628³²⁸¹ (found amongst debris on the floor).

14.3. The aerosol can, Label 629³²⁸² (found in the middle of shelf 3).

14.4. The aerosol can, Label 631³²⁸³ (found amongst debris on the floor).

14.5. The aerosol can, Label 487³²⁸⁴ (found at the back of the lower shelf of the inner cupboard).

It may be concluded that each of these aerosol cans failed in response to the fire in the cupboard, releasing its contents into the fire.

15. It may be inferred from the evidence that the right hand cupboard door of cupboard A2 had moved during the course of the fire³²⁸⁵ that at least one of the aerosols had failed, causing an overpressure, in the manner seen at 4 minutes 40 seconds and also at 5 minutes 51 seconds in BRE Test 1³²⁸⁶.

³²⁷⁸ Christopher Martin, 29 July 2010, pm, pp. 75-76.

³²⁷⁹ For the aerosols found in cupboard A2, see Chapter 13, para. 22.

³²⁸⁰ Christopher Martin, 30 July 2010, am, pp. 56-58.

³²⁸¹ Christopher Martin, 30 July 2010, am, pp. 58-62.

³²⁸² Christopher Martin, 30 July 2010, am, pp. 61-64.

³²⁸³ Christopher Martin, 30 July 2010, am, pp. 61-64.

³²⁸⁴ Christopher Martin, 30 July 2010, am, pp. 89-90.

³²⁸⁵ See Chapter 30 (formerly 25), para. 9,

³²⁸⁶ See Chapter 31 (formerly 26), para. 8.14, Chapter 32 (formerly 27), para. 3.5.

16. The timing of involvement of these aerosols in the fire cannot be ascertained from the forensic evidence. That might have been affected by whether any aerosol which became involved in the fire was in the inner cupboard or not. By reason of its location in the middle of shelf 3, it may be concluded that the aerosol, Label 629, was on that shelf before the fire started. By reason of its location at the back of the lower shelf of the inner cupboard, it may be concluded that the aerosol, Label 487, was in that location before the fire. It cannot be determined from the physical evidence where the other aerosols which had failed in response to the fire, which were all in debris on the floor, were before the fire³²⁸⁷.

Note to Chapter 34

There are no submissions from interested parties which call for comment.

³²⁸⁷ See Chapter 13, para. 22, for the locations in relation to cupboard A2 where aerosols were found following the fire.

CHAPTER 35: DEVELOPMENT OF THE FIRE – THE ROLE OF FURNITURE

Furniture in Corridor 4

1. At the time of the fire there were certain items of furniture in corridor 4. Some of this furniture was moved subsequently, but its position during the fire was established by examining protection marks on the walls and floor. Figure 3 in production 1454 (Mr. Mortimore's report) shows the location of these items of furniture³²⁸⁸:-

1.1. Chair C1 (Label 773³²⁸⁹) was an upholstered chair located just to the east of the door to room 15. This chair was significantly fire-damaged, although the front face of the chair, which faced west, had been burned less severely than the back of the chair³²⁹⁰.

1.2. Chair C2 (Label 768³²⁹¹) was an upholstered chair located just to the west of the corner. This chair had a timber frame that had been formed into a curved base and chair back. This chair exhibited a relatively even pattern of fire damage³²⁹².

1.3. There was a small table against the wall between the door of room 9 and the corner. The front of this table was charred and when it was moved, protection patterns were observed on the wall behind it. These patterns indicated that the table had not been moved since the fire³²⁹³.

1.4. There was a wheelchair just outside room 12.

2. The upholstered furniture contributed fuel to the fire.

³²⁸⁸ Stuart Mortimore, 11 March 2010, am, pp. 40-47.

³²⁸⁹ Joint Minute para. 159.

³²⁹⁰ Stuart Mortimore, 11 March 2010, pm, p. 60

³²⁹¹ Joint Minute, para. 158.

³²⁹² Stuart Mortimore, 11 March 2010, pm, pp. 60-62

³²⁹³ Stuart Mortimore, 11 March 2010, pm, pp. 61-62.

3. Typical foam fillers for furniture have the potential to release toxic components such as hydrogen cyanide during combustion. PVC can also produce hydrogen chloride when burned³²⁹⁴. It may be concluded that the upholstered furniture in the corridor at Rosepark contributed to the toxicity of the atmosphere by releasing hydrogen cyanide and hydrogen chloride³²⁹⁵.

3.1. Foam and vinyl of the same kinds as were comprised in Labels 768 and 773 were supplied to the HSL and were subjected to tests reported in production 1407³²⁹⁶. Samples of foam and cover material were subjected to fire and the combustion products collected and analysed. In both cases, certain quantities of hydrogen cyanide and hydrogen chloride were found³²⁹⁷. The quantities produced in the tests were not such as to cause concern on their own, but Dr Jagger who spoke to these tests explained the limitations of the exercise and, in particular, recognized that the effects would be additive to the effects of other combustion products³²⁹⁸.

3.2. Chairs of generally similar construction and materials as Labels 768 and 773 were supplied to the BRE and were used by the BRE in undertaking the reconstruction work³²⁹⁹. The gas measurements undertaken disclosed significant quantities of hydrogen cyanide³³⁰⁰.

3.3. Blood samples for the deceased who died at the scene were tested for hydrogen cyanide, with negative results. This does not, however, imply that these deceased were not exposed to hydrogen cyanide at the scene, or that the findings in BRE Test 1 of hydrogen cyanide invalidates the BRE test: hydrogen cyanide is very unstable in blood post mortem; and the measurement of hydrogen cyanide post mortem requires very sensitive instrumentation. The techniques used would not have detected levels below 0.52 mg/l³³⁰¹.

³²⁹⁴ Stuart Jagger, 22 March 2010, am, p. 70; David Purser, 14 June 2010, am, p. 63, pm.

³²⁹⁵ Martin Shipp, 14 April 2010, pm, pp. 72-74; David Purser, 14 June 2010, pm, pp. 62-3.

³²⁹⁶ Joint Minute, para. 160.

³²⁹⁷ Stuart Jagger, 22 March 2010, am, pp. 79-82.

³²⁹⁸ Stuart Jagger, 22 March 2010, am, pp. 82-94.

³²⁹⁹ Joint Minute para. 161.

³³⁰⁰ David Purser, 14 June 2010, am, pp. 63, 92-94.

³³⁰¹ Robert Anderson, 16 June 2010, pm, pp. 47-end; see also David Purser, 14 June 2010, am, pp. 63-65, pm, pp. 58-63.

Note to Chapter 35

There were no comments from interested parties.

CHAPTER 36: DEVELOPMENT OF THE FIRE – THE EVIDENCE OF MRS BURNS

1. Following the fire, Robina Burns was rescued alive from her bedroom (room 10) at Rosepark but died later in hospital³³⁰². Before she died, Mrs Burns was able to give her daughter, Mrs Crawford, an account of her experiences on the night of the fire. The following are the salient features of Mrs Burns’ account, as described by Mrs Crawford.

- 1.1. Mrs Burns went to bed between 8 and 9 pm³³⁰³.
- 1.2. She always had her bedroom door closed at night. She liked to sleep with her bedside light on and the window closed³³⁰⁴.
- 1.3. She was woken up by the sound of her bedside light “popping”³³⁰⁵. Her room was in darkness³³⁰⁶.
- 1.4. When she woke up she could smell smoke³³⁰⁷.
- 1.5. She went to the door and put the ceiling light on³³⁰⁸.
- 1.6. She opened the door and could hear a roar. She saw smoke and flames rush along the corridor³³⁰⁹. She described the flames as being near the floor³³¹⁰.
- 1.7. She shut her door quickly again³³¹¹.
- 1.8. She went over to the window and opened it and sat down in her chair³³¹².

2. There are two adminicles of evidence which assist in relating this account to the development of the fire. Firstly, Mrs Burns reported smelling smoke when she woke. This implies (assuming, as must be the case, that any smoke was caused by the fire) that she woke at some point after the fire had started. It is significant that she put the ceiling light on at that stage. This light probably took its power from the upper busbar of the distribution board in cupboard A2. There was accordingly still power to the

³³⁰² Chapter 28 (formerly Chapter 23), paras. 285-292; Chapter 41 (formerly Chapter 35), para. 8.

³³⁰³ Agnes Crawford, 16 November 2009, pm, p. 63.

³³⁰⁴ *Ibid.*, pp. 58-59.

³³⁰⁵ *Ibid.*, pp. 60, 64.

³³⁰⁶ *Ibid.*, p. 64.

³³⁰⁷ *Ibid.*, p. 63

³³⁰⁸ *Ibid.*, pp. 64-67, under reference to Mrs Crawford’s police statement.

³³⁰⁹ *Ibid.*, pp. 60, 67.

³³¹⁰ *Ibid.*, p. 67.

³³¹¹ *Ibid.*, pp. 61, 67.

³³¹² *Ibid.*, pp. 61, 67.

board at this time. It follows that the arcing at the busbar occurred after Mrs Burns switched on her ceiling light (Chapter 43 paragraph 55f). Secondly, Dr Lygate explained Mrs Burns' description of the fire which she saw on opening her door as a fire hunting for oxygen, consistent, according to Dr Lygate, with a point in time some five minutes after flaming combustion³³¹³.

3. Although this is a hearsay account, there is no reason not to accept it as generally credible and reliable subject to one qualification. When Mrs Burns awoke her room was in darkness and it may therefore be concluded that her bedside light had gone out. However, it would not be safe to rely on her evidence that she had been woken by the bulb "popping".

3.1. The failure of her bedside light would be capable of being explained either: (a) by the bulb blowing; or (b) by the effects of the fire at the distribution board, in particular causing the circuit breaker which protected the relative circuit to trip in response to heat³³¹⁴.

3.2. A "popping" sound could be explained by the explosion of aerosol cans in the fire or the explosion of an electric light fitting at ceiling level in the fire³³¹⁵.

3.3. Since Mrs Burns' room was in darkness when she awoke, it would have been a natural inference that she had been awoken by the bulb "popping", particularly if she heard "popping" sounds.

Note to Chapter 36

There were no comments from interested parties.

³³¹³ James Lygate, 10 August 2010, am, pp. 49-50. Mr. Shipp was, however, unable to explain Mrs Burns' description of flames at low level: 16 April 2010, am, pp. 55-59.

³³¹⁴ James Lygate, 10 August 2010, am, pp. 48-49; pm, p. 33.

³³¹⁵ James Lygate, 10 August 2010, am, p. 50.

CHAPTER 37: DEVELOPMENT OF THE FIRE: CORRIDOR 3

Introduction

1. Corridor 3 should have been protected from the effects of fire and smoke by the corridor 3/4 fire door and the cavity barriers in the suspended ceiling.

2. In fact, corridor 3 suffered significant ingress of smoke and toxic fire gases – albeit that the levels were much less than was experienced in corridor 4. This is clear from the following evidence:

2.1. Five of the six residents in corridor 3 required to be hospitalized following the fire and all of these had achieved significant carboxyhaemoglobin levels. Two of them died in hospital. This shows that there was significant ingress of smoke and toxic fire gases into corridor 3.

2.2. On the other hand, all the residents of corridor 3 were rescued alive (albeit that two died later)³³¹⁶. The carboxyhaemoglobin levels of the residents who had rooms with open doors in corridor 3 were analogous to those of the residents who had closed doors in corridor 4. The levels of those whose doors were slightly ajar were lower, and these residents survived.

3. On the basis of the actual carboxyhaemoglobin levels of residents from corridor 3, it may be estimated that the amount of fire effluent penetrating corridor 3 in the actual incident was about twice as much as penetrated the corridor in the BRE Test 1³³¹⁷.

4. Smoke and toxic gases penetrated corridor 3 in two principal ways:

4.1. at the corridor 3/4 fire door; and

4.2. through the ventilation ducting.

³³¹⁶ David Purser, 15 June 2010, am, p. 63

³³¹⁷ David Purser, 15 June 2010, am, pp. 101-102.

There may also have been some minor spread of smoke through unstopped penetrations in the firewall that separated the two corridors³³¹⁸.

Smoke penetration at the corridor 3/4 firedoor

5. Smoke and toxic gases passed into corridor 3 at the corridor 3/4 firedoor. There was a V shaped pattern of smoke damage on the corridor 3 side of the firedoor³³¹⁹. Furthermore, the plastic of the light on the corridor 3 side of the door had been significantly melted. There was also heat damage to the paint on the corridor 3 side of the door³³²⁰. It follows that this firedoor was open during the fire to a sufficient extent to allow heat, smoke and fire gases to pass from corridor 4 into corridor 3³³²¹.

6. Following the fire:

6.1. The plastic of the fire exit light (in particular the diffuser) which was located above the door on the corridor 3 side was found to have melted³³²².

6.2. Material from the fitting had dropped onto the top of the leaf in its molten state and the door leaf had closed onto it leaving an imprint³³²³.

6.3. Melted plastic was found on the carpet immediately below the location of that light (Label 699)³³²⁴. The smear of plastic had been gathered up into a lump with a flat side, consistent with the edge of the door resting against the plastic at that point³³²⁵.

³³¹⁸ Stuart Mortimore, 16 March 2010, pm, p. 72.

³³¹⁹ Stuart Mortimore, 16 March 2010, pm, pp. 72-73.

³³²⁰ Stuart Mortimore, 17 March 2010, am, p. 4.

³³²¹ Stuart Mortimore, 16 March 2010, pm, pp. 82-83; Christopher Miles, 2 August 2010, am, pp. 57-60.

³³²² Stuart Mortimore, 16 March 2010, pm, p. 83; 17 March 2010, am, pp. 1-2

³³²³ Christopher Miles, 2 August 2010, am, pp. 64-65, 77-78.

³³²⁴ Gary Thomson, 11 August 2010, am, pp. 7-9.

³³²⁵ Gary Thomson, 11 August 2010, am, pp. 9-10.

- 6.4. A plastic material was found adhered to the base of the kick plate and on the base of the door leaf, under which it had passed for a distance of approximately 320 mm from the leading edge of the leaf³³²⁶.
- 6.5. The plastic material was of the same composition to the diffuser of the fire exit sign on the corridor 3 side of the door which had melted³³²⁷.
7. It may be inferred that melted material had dropped from the diffuser onto the carpet, and that the door had swept across this and pushed it up into the greater mass³³²⁸.
8. The question remains how the door came to be open. There are two possibilities³³²⁹:
- 8.1. The fire door did not close properly at the outset.
 - 8.2. The fire door opened in the course of the fire.
9. It is likely that the door closed properly at the outset but that it was subsequently opened in the course of the fire by pressure effects arising from the explosion of aerosols, additive to the pressure effects of the fire itself.
- 9.1. It is unlikely that the fire door failed to close properly at the outset.
 - 9.1.1. On examination of the door leaf and its furnishings after the fire:
 - 9.1.1.1. There was no evidence of any warping of the door leaf.
 - 9.1.1.2. The standard door closer operated normally.
 - 9.1.1.3. The hinges had remained intact³³³⁰.

³³²⁶ Christopher Miles, 2 August 2010, am, pp. 79-85.

³³²⁷ Ian Pengelly,

³³²⁸ Christopher Miles, 2 August 2010, am, p. 85

³³²⁹ Christopher Miles, 2 August 2010, am, pp. 62-63, 70-71.

A test showed that the door set would have closed adequately provided there were no other restrictions to prevent it doing so³³³¹.

9.1.2. The fire alarm was tested weekly, inter alia, to check that firedoors closed properly. When Mr Muir tested the fire alarm system after installing the new panel, a few days before the fire, the corridor 3/4 firedoor closed properly.

9.1.3. Following the fire, the release mechanism was tested and was found to be working properly. In any event, it was a fail safe mechanism, such that if anything interfered with the circuit, the hold-open device should fail and the door should close³³³².

9.2. It would have been possible for the firedoor to have been opened by pressure effects, particularly caused by exploding aerosols, perhaps in conjunction with pressure effects arising from the fire itself³³³³.

9.2.1. During BRE Test 1, the self-closing firedoors in the reconstruction opened and closed spasmodically³³³⁴.

9.2.2. Mr Martin carried out calculations, on the basis of which he concluded that the pressure pulse from an exploding aerosol located in the corridor 6 metres from a corridor firedoor would not have sufficient duration to open the firedoor. Other experienced expert witnesses expressed a contrary view:

9.2.2.1. Mr Shipp suggested that Mr Martin was taking an extremely cautious approach. There was no question that the aerosols in a number of the BRE tests had caused pressure waves.

³³³⁰ Christopher Miles, 2 August 2010, am, pp. 43-53.

³³³¹ Christopher Miles, 2 August 2010, am, pp. 52-53.

³³³² Stuart Mortimore, 16 March 2010, pm, pp. 80-81.

³³³³ Martin Shipp, 15 April 2010, am, pp. 87-88.

³³³⁴ Martin Shipp, 14 April 2010, am, pp. 29-30; Thomas Affleck 1 April 2010, pm, p. 6.

In some, the pressure was sufficient to cause some structural damage. There was no question that the pressures were sufficient to open a self-closing door, albeit for a very short period of time. These pressures would be additional to the (relatively small) positive pressures created by the fire itself³³³⁵. His view was that if the fire door was blown open it was the pressure pulse that was doing it³³³⁶.

9.2.2.2. Dr. Vince likewise took issue with Mr Martin's approach. On the basis of his experience, it would not have surprised him if the pressure pulse produced by an exploding aerosol could open a fire door. As he explained it, as the pulse moved away from its source it would become longer in duration, a factor which Mr Martin had not taken into account.

9.2.2.3. Mr Mortimore considered it likely that exploding aerosols would have caused the door to open, albeit briefly. He found Mr Martin's conclusion surprising³³³⁷.

9.3. Had the fire door been blown open, it could have taken as much as 30 seconds for the door closer to close it again, although 10 seconds or so would be the normal duration of operation³³³⁸.

9.3.1. If the temperature was high enough the plastic of the diffuser could have been melted while the door was open³³³⁹.

9.3.2. BRE Test 1 produced peak temperatures of 760 degrees at high level near room 17 minutes³³⁴⁰.

³³³⁵ Martin Shipp, 15 April 2010, am, pp. 84-88

³³³⁶ Martin Shipp, 16 April 2010, am, pp. 78-79.

³³³⁷ Stuart Mortimore, 17 March 2010, am, pp. 14-17

³³³⁸ Christopher Miles, 2 August 2010, am, pp. 65-66.

³³³⁹ Christopher Miles, 2 August 2010, am, pp. 60, 73-74.

³³⁴⁰ Martin Shipp, 14 April 2010, am, pp. 42-47, 73-74.

9.3.3. Mr Mortimore had difficulty with this explanation. But he seems to have been predicated on the basis that the door would have been open “for a few seconds at most”³³⁴¹, and Mr Miles indicated a rather longer period as at least possible.

9.3.4. It is possible that the closing action of the door could have been delayed or inhibited slightly by the expansion of the intumescent strip under the hinges (perhaps in conjunction with one of the other mechanisms)³³⁴², or by something physically jamming the door³³⁴³.

Smoke penetration along the ductwork

Background

10. There were vents into the ductwork from cupboard A2, in the ceiling of corridor 4, in the ceiling of corridor 3 and in the ceiling of the central stairwell.

11. Since there were no fire dampers in the ducting, there was no physical barrier to the smoke passing along the ducting and, through the vents in the ceiling, into corridor 3 or the central stairwell.

12. The ventilation ducting in corridor 4 was found following the fire to be soot-stained. There were soot deposits around the vent in the central stairwell. There was no visible soot staining in the ducting in corridor 3³³⁴⁴.

13. At about 0433 hours, when staff passed through the central stairwell, they noticed nothing untoward.

³³⁴¹ Stuart Mortimore, 17 March 2010, am, pp.29-31.

³³⁴² Stuart Mortimore 17 March 2010, am, pp. 33-36; cf Christopher Miles, 2 August 2010, am, pp. 85-86.

³³⁴³ Stuart Mortimore, 17 March 2010, am, p. 22-28.

³³⁴⁴ Martin Shipp, 15 April 2010, am, p. 39.

14. At about 0437 hours, thick smoke was entering the central stairwell from the vent in the central stairwell. It may be inferred that this was smoke from the fire which had passed along the ventilation ducting

BRE work

15. The BRE undertook reconstruction tests to investigate the potential for smoke to pass along the ventilation ducting³³⁴⁵. A test rig was constructed consisting of a cupboard opening into a corridor representing the area from the corner of corridor 4 up to corridor 3. Ventilation ducting, of the same sort as at Rosepark, was installed, running from the cupboard along the equivalent length of corridor 4 to corridor 3 and along corridor to the central stairwell. Vents were installed into the cupboard, corridor 4, corridor 3 and the central stairwell³³⁴⁶. A fire damper of the metal shutter variety (which was the type of damper which you would have expected to be fitted in 1992) was fitted at the location of the corridor 3/4 fire door. This was of a sort which could be reset between tests, but its operation would be very similar to the response of a fire damper operated by means of a fusible link³³⁴⁷. In each of the three tests, a fire was ignited in the cupboard using cribs³³⁴⁸.

Test 1

16. In Test 1 of this series, the cupboard was fully fitted out with goods including aerosol canisters. A block of wood was located in the fire damper so that it would remain open throughout the Test³³⁴⁹.

16.1. At 2 minutes 46 seconds from ignition smoke started filling corridor 4.

16.2. By 3 minutes 14 seconds the cupboard was well alight.

³³⁴⁵ Martin Shipp, 15 April 2010, am, pp. 1ff

³³⁴⁶ Martin Shipp, 15 April 2010, am, pp. 3-16.

³³⁴⁷ Martin Shipp, 15 April 2010, am, pp. 12-14; 16 April 2010, am, p. 86.

³³⁴⁸ Martin Shipp, 15 April 2010, am, p. 21

³³⁴⁹ Martin Shipp, 15 April 2010, am, p. 21.

16.3. By 3 minutes 36 seconds smoke was billowing out of the ducting in the location of the outlet into the central stairwell.

16.4. At 3 minutes 58 seconds the fire damper switch operated, although (by reason of the block of wood) the damper did not close.

16.5. Relatively little smoke exited from the corridor 3 outlet, but this was an artefact of the way the trunking had been laid for this test (with the outlet into the central stairwell laid higher than the outlet into corridor 3)³³⁵⁰.

16.6. The ducting within corridor 3 did not show visible soot staining. However, on being wiped with a cloth, evidence of soot was apparent³³⁵¹.

Test 2

17. Test 2 of this series was conducted in an identical manner to Test 1 (apart from not including any aerosols), but: (a) included an operational damper at the boundary between corridor 3 and corridor 4; and (b) the location of the corridor 3 outlet was adjusted to deal with the problem which had been identified in Test 1³³⁵².

17.1. At 2 minutes 14 seconds from ignition, smoke appeared from the outlet in Corridor 4.

17.2. At 3 minutes 12 seconds, smoke was seen coming from both the corridor 3 outlet and the central stairwell outlet.

17.3. At 4 minutes 13 seconds the fire damper closed.

17.4. At 5 minutes 16 seconds there were still wisps of smoke coming from the central stairwell outlet, which may simply have been the residual smoke which had been left in the ducting after the damper closed.

³³⁵⁰ Martin Shipp, 15 April 2010, am, pp. 21-26

³³⁵¹ Martin Shipp, 15 April 2010, am, pp. 38-39.

³³⁵² Martin Shipp, 15 April 2010, am, pp. 43-47.

Test 3

18. Test 3 of this series was conducted in an identical manner to Test 1 (apart from not including any aerosols) but included a fan in the duct at roof level. The damper was held open with a block of wood. The fan was operating prior to ignition and was switched off six minutes thereafter³³⁵³.

18.1. At 2 minutes 30 seconds from ignition, smoke was seen issuing from the fan and no smoke was visible coming from other parts of the ducting system at all.

18.2. At 6 minutes the fan was switched off.

18.3. At 6 minutes 30 seconds, smoke was visible from the corridor 4 outlet.

18.4. At 6 minutes 47 seconds, smoke was visible from the corridor 3 outlet.

18.5. At 7 minutes and 58 seconds the fire damper switch operated.

Test 4

19. Test 4 of this series was conducted with the same rig as Test 3 but with three changes: (a) 28 aerosols were placed in the cupboard; (b) the cupboard doors (which were ordinary cupboard doors not fire doors) were closed; and (c) the damper was allowed to operate. The extract fan was operated but switched off after six minutes³³⁵⁴.

19.1. At 1 minute 15 seconds from ignition it was possible to see fire in the cupboard.

³³⁵³ Martin Shipp, 15 April 2010, am, pp. 47-52.

³³⁵⁴ Martin Shipp, 15 April 2010, am, pp. 53-59.

19.2. At 5 minutes 37 there was no smoke emerging from the ducting (the fan still being on).

19.3. At 6 minutes the fan was switched off.

19.4. At 7 minutes 58 seconds, smoke was seen coming out of the central stairwell vent.

19.5. At 9 minutes 46 seconds, an aerosol exploded.

19.6. At 10 minutes 40 seconds the damper operated.

19.7. At 11 minutes 8 seconds another aerosol exploded and flames were emitted from the cupboard.

19.8. At 11 minutes 46 seconds there was some from the two outlets in corridor 4.

19.9. At 12 minutes 20 seconds, occasional bursts of flames burst through the cupboard doors.

19.10. At 14 minutes 12 seconds there was continuous flaming.

19.11. At 15 minutes 55 seconds the cupboard doors were burning on the outside of the doors.

19.12. By 16 minutes 58 seconds the cupboard doors were burned away.

19.13. No smoke was seen emerging from the corridor 3 vent.

19.14. Of the 28 aerosol canisters, 14 had ruptured and 14 remained unruptured.

Conclusions

20. The following conclusions may be drawn from these tests:

20.1. As long as the fan of the extract ventilation system was operating, smoke drawn into the ductwork in corridor 4 or from cupboard A2 would have been extracted to exterior of the building by the fan and would not have passed along the ductwork into corridor 3 or the central stairwell³³⁵⁵.

20.2. If the fan was not operating, smoke would travel along the ducting to the central stairwell³³⁵⁶.

20.3. Likewise, if the fan was not operating, smoke would travel along the ducting and discharge into corridor 3³³⁵⁷.

20.4. In Test 1 smoke took more than 3 minutes to reach the central stairwell vent from ignition and Martin Shipp took the view that smoke could travel from the cupboard through into corridors 2 and 3 within about 3 or 4 minutes³³⁵⁸. In Test 4, in which the fan was operating at ignition and was subsequently switched off, smoke was seen at the central stairwell vent about 2 minutes after the fan was switched off.

21. It may be inferred that the extract system stopped working at or about 0434 hours. This could have happened due to:

21.1 the effects of fire on the Vent-Axia controller next to the distribution board or its associated cabling³³⁵⁹;

21.2 the tripping of the MCB which protected the circuit to the Vent-Axia controller due to the heat of the fire; or

³³⁵⁵ Martin Shipp, 15 April 2010, am, pp. 60-61.

³³⁵⁶ Martin Shipp, 15 April 2010, am, p. 61.

³³⁵⁷ Martin Shipp, 15 April 2010, am, pp. 61-62.

³³⁵⁸ Martin Shipp, 15 April 2010, am, pp. 65-66.

³³⁵⁹ Stanley Wilson, 3 February 2010, am, p. 14.

21.3 the tripping of the extract fan itself due to heat³³⁶⁰.

The relative significance of these two sources of smoke and toxic gases in Corridor 3

22. The relative contributions to the toxic atmosphere in corridor 3 of the two major sources of smoke and toxic gases (i.e. at the fire door and through the ducting) cannot be determined with any certainty or precision³³⁶¹. Quite apart from any other considerations, while the timing of the failure of the fan (and hence smoke passing into corridor 3 and the central stairwell) can be identified, the time when the corridor 3/4 fire door opened is unknown.

23. I conclude that smoke and toxic gases passing through the ducting contributed to the toxic atmosphere in Corridor 3. Mr Shipp's view was that there could have been reasonable quantities of smoke coming through the ducts – possibly, but probably not, in quantities which would on their own have been life-threatening³³⁶². Mr Mortimore's view, drawn with a degree of caution from the amount of smoke staining and the heat effects at the door, was that the door was considerably more significant than the smoke that came through the ductwork³³⁶³.

Note to Chapter 37

It was submitted on behalf of North Lanarkshire Council that the relative contributions to the toxic atmosphere in corridor 3 between (i) the smoke which entered corridor 3 through the vents in the ceiling as a result of the absence of dampers between corridors 3 and 4, and (ii) the smoke which came into corridor 3 through the fire door between corridors 3 and 4 when it was blown open as a result of the involvement of aerosols, could not be precisely determined.

³³⁶⁰ Stanley Wilson, 3 February 2010, am, pp. 13-14.

³³⁶¹ Martin Shipp, 16 April 2010, am, pp. 92-94.

³³⁶² Martin Shipp, 15 April 2010, am, pp. 62-63, 16 April 2010, am, pp. 135-8.

³³⁶³ Stuart Mortimore 17 March 2010, am, pp. 43-45

I have found that the relative contributions to the toxic atmosphere in corridor 3 of the two major sources of smoke and toxic gases cannot be determined with any degree of certainty. However, I have concluded that the smoke and toxic gases passing through the ducting contributed to the toxic atmosphere in corridor 3. This is also confirmed from the substantial quantities of smoke in corridor 2, the lift area, which only came through the vents in the ceiling of corridor 2 as a result of the absence of dampers. It is for this reason that I consider that it is appropriate to conclude that, while the relative contributions to the toxic atmosphere through the fire door and through the ducting cannot be determined with any certainty or precision, the smoke from both sources contributed to the toxic atmosphere in corridor 3. As I conclude at RP36 and explain at Chapter 44(3)(f) the installation of fire dampers would have been a reasonable precaution. I further conclude had this precaution been taken, some of the deaths might have been avoided. This is consistent with the evidence and the requirements of section 6(1)(c)

The Crown have not asked for a finding that the absence of dampers contributed to the deaths in terms of section 6(1)(d). In my view that distinction accords with the evidence. At its highest the presence of dampers “might have avoided the deaths”.

CHAPTER 38: WHEN DID IGNITION OCCUR?

This Chapter deals with the determination I am required to make under section 6(1)(a), namely when the accident resulting in the death took place.

I have determined that “the fire started at or about 0425 hours on 31 January 2004”.

General

1. This determination is based on the following propositions
 - 1.1. The fire alarm first sounded at about 0428 hours.
 - 1.2. The first smoke detector to be activated was the detector in the ceiling of cupboard A2.
 - 1.3. This detector was activated very quickly – and no more than a few minutes – after ignition.

When did the fire alarm first sound?

2. The fire alarm first sounded shortly before 0428.29. For practical purposes, it may be taken that the fire alarm sounded at about 0428.
 - 2.1. The time shown on the CCTV footage at the start of a sequence of footage during which Yvonne Carlyle and then all three members of staff, approached the fire panel was 0532.48.
 - 2.2. The time shown on the CCTV footage was approximately 1 hour, 4 minutes and 19 seconds fast³³⁶⁴.

³³⁶⁴ John Thomson Whyte, 26 November 2009, am, pp. 8-9.

Which was the first smoke detector to activate?

3. The smoke detector in the ceiling of cupboard A2 was the first smoke detector to activate.

3.1. There was a smoke detector in the ceiling of cupboard A2.

3.2. This detector was operational.

3.2.1. All of the smoke detectors at Rosepark were of the same type.

3.2.2. All of the smoke detectors at Rosepark which were operational after the fire were tested and found to be working.

3.2.3. It may reasonably be inferred from the fact that the operational detectors were found to be working that the detectors in the fire-damaged part of the building (including the detector in cupboard A2) were also working before the fire³³⁶⁵.

3.3. A fire developing low down on the south side of the cupboard with the doors disposed as the cupboard doors were at Rosepark would activate the detector in the ceiling of cupboard A2 (assuming it was operational) before it would activate any other detector.

How quickly after ignition did the detector sound?

4. This detector in the ceiling of cupboard A2 was activated very quickly – and no more than a few minutes - after ignition. This is discussed in Chapter 32 above³³⁶⁶. The precise time cannot be identified with precision, but the evidence discussed there would suggest that a determination that the fire ignited at or about 0425 hours would be reasonable.

³³⁶⁵ Julian Norris, 6 January 2010, pm, pp. 21-22.

³³⁶⁶ Paragraphs 4-5.

Note to Chapter 38

There are no submissions from interested parties.

CHAPTER 39: SMOKE AND TOXIC FIRE GASES

Products of combustion

1. The following are typical products of combustion, which may be seen or experienced in a fire.

1.1. Smoke, which consists of carbon and other particulate matter released as the fuel in the fire burns³³⁶⁷.

1.2. Irritant chemicals, in gas phase and attached to the particulate matter³³⁶⁸. If inhaled, these can damage the linings of the lungs and airways³³⁶⁹.

1.3. Asphyxiant gases, which impair the delivery of oxygen to or its use in the vital organs, particularly the heart and brain³³⁷⁰. The most important of these are:

1.3.1. Carbon monoxide.

1.3.2. Hydrogen cyanide.

1.3.3. Carbon dioxide.

These are associated with the depletion of Oxygen³³⁷¹.

2. Someone exposed to a sufficient dose of asphyxiant gases will become incapacitated and die. Someone who survives the fire may nevertheless die later as a result of the effects of the fire.

³³⁶⁷ David Purser, 14 June 2010, am, p. 31

³³⁶⁸ David Purser, 14 June 2010, am, pp. 31-32.

³³⁶⁹ David Purser, 14 June 2010, am, p. 39

³³⁷⁰ David Purser, 14 June 2010, am, pp. 34-35.

³³⁷¹ David Purser, 14 June 2010, am, pp. 35-36.

Carbon monoxide

3. When carbon monoxide is inhaled, it combines with the haemoglobin in the blood (the substance which carries oxygen from the lungs to the tissues) to form carboxyhaemoglobin. Conversion of the haemoglobin in the blood to carboxyhaemoglobin impairs the ability of the blood to deliver oxygen to the tissues³³⁷².

4. There is, at least for the sorts of timescales involved in this case, a relationship between the level of carbon monoxide in the atmosphere, duration of exposure and the percentage carboxyhaemoglobin which the person exposed will achieve. For example, exposure to 10,000 ppm for 5 minutes will have the same effect as 5,000 ppm for 10 minutes³³⁷³. So even a very low exposure, if it is continued over a significant period of time, can produce incapacitating and lethal effects.

5. At between 30 and 40% carboxyhaemoglobin, the victim will lose consciousness. If the dose increases sufficiently, the victim will die. 50% carboxyhaemoglobin may be regarded as a reliable indicator that the subject has sustained a lethal dose of carbon monoxide: someone rescued from a fire with 50% carboxyhaemoglobin is very unlikely to survive³³⁷⁴.

6. Someone rescued with a carboxyhaemoglobin below 40% has a good chance of survival³³⁷⁵. This is the case irrespective of the age and health status of the individual³³⁷⁶. The findings from Rosepark were consistent with this conclusion: all those who were rescued with less than 40% carboxyhaemoglobin survived; where those above it died³³⁷⁷. Professor Purser analysed the age distribution and health status of the individuals who survived and those who died. He found that, apart from an apparently minor effect of pre-existing heart disease, the one variable which stood out

³³⁷² David Purser, 14 June 2010, am, pp. 46-47.

³³⁷³ David Purser, 14 June 2010, am, pp. 53-57.

³³⁷⁴ David Purser, 14 June 2010, am, pp. 46-53, 68.

³³⁷⁵ David Purser, 14 June 2010, pm, pp. 83-84, 15 June 2010, am, pp. 4-5.

³³⁷⁶ David Purser, 14 June 2010, am, pp. 12-13, 15 June 2010, am pp. 15-18.

³³⁷⁷ David Purser, 14 June 2010, pm, p. 84.

was the percentage carboxyhaemoglobin³³⁷⁸. This was consistent with the clinical view of Professor Langhorne³³⁷⁹.

7. The percentage carboxyhaemoglobin in the blood is a good marker for the other effects of exposure to the products of fire³³⁸⁰. It is relatively stable post mortem³³⁸¹. On the other hand, in a subject who is removed from the scene, however, the percentage carboxyhaemoglobin will decrease as air is breathed in and, in particular, if oxygen therapy is given³³⁸². If the percentage carboxyhaemoglobin is measured subsequently (e.g. on arrival at hospital), it will be lower than the percentage carboxyhaemoglobin with the patient had sustained during the fire, but, provided the relevant timings are known, a calculation can be done to estimate the exposure during the fire³³⁸³.

Hydrogen Cyanide

8. Hydrogen cyanide is generated by fuels contained nitrogen and the quantity of hydrogen cyanide depends on the quantity of nitrogen in the fuels burned and the combustive conditions.

9. Hydrogen cyanide is carried to the tissues of the vital organs where it inhibits the use of oxygen by those tissues. A short exposure to a high concentration of hydrogen cyanide can cause rapid loss of consciousness. Exposure to lower concentrations may have little effect over extended periods of time³³⁸⁴.

Carbon dioxide

10. Concentrations of over 5% carbon monoxide can themselves cause loss of consciousness. The principal effect of elevated levels of carbon dioxide is however that it increases the amount of air a person breathes each minute. This increases the

³³⁷⁸ David Purser, 15 June 2010, am, pp. 15-18.

³³⁷⁹ Peter Langhorne, 21 December 2009, pm, pp. 38-39.

³³⁸⁰ David Purser, 14 June 2010, am, pp. 57-59

³³⁸¹ David Purser, 14 June 2010, am, p. 56.

³³⁸² David Purser, 14 June 2010, am, pp. 59-60.

³³⁸³ David Purser, 14 June 2010, am, pp. 60-62.

³³⁸⁴ David Purser, 14 June 2010, am, pp. 62-65.

rate at which other toxic gases, particularly carbon monoxide and hydrogen cyanide are taken up³³⁸⁵.

Oxygen depletion

11. The fire depletes the oxygen in the air, so persons subjected to the atmosphere of a fire will inhale less oxygen than normal. Generally speaking, the effects of this are minor up to the point in time when the other gases are having a major effect in any event³³⁸⁶.

Effects of a toxic mixture

12. The incapacitating effects of carbon monoxide and hydrogen cyanide are additive. In order to deal with this, a calculation can be done using the concept of the fractional effective dose, to find whether or not the subject has been exposed to a sufficient dose of the mixture to cause unconsciousness³³⁸⁷. An adjustment can be made for the effects of carbon dioxide³³⁸⁸. The method is known as “the method of Purser”, having been developed by Professor Purser, who gave evidence³³⁸⁹.

Note to Chapter 39

There are no submissions from interested parties.

³³⁸⁵ David Purser, 14 June 2010, am, pp. 68-71.

³³⁸⁶ David Purser, 14 June 2010, am, p. 71.

³³⁸⁷ David Purser, 14 June 2010, am, pp. 65-68.

³³⁸⁸ David Purser, 14 June 2010, am, p. 71.

³³⁸⁹ David Purser, 14 June 2010, am, pp. 81-84.

CHAPTER 40: EFFECTS OF TOXIC ATMOSPHERE ON THE OCCUPANTS OF CORRIDORS 3 AND 4

Introduction

1. There are two sources of data on the toxic atmosphere to which the occupants of corridors 3 and 4 of Rosepark were exposed:

1.1. There is actual data, in the form of the carboxyhaemoglobin levels achieved by residents of those corridors, which disclose that the resident were exposed to significant levels of carbon monoxide, and hence other products of combustion³³⁹⁰.

1.2. There is the data obtained in the BRE Test 1. On the assumption that these data reasonably reflected the actual fire at Rosepark, the effects of the toxic atmosphere disclosed by those data can be predicted.

Actual data

2. The residents of corridors 3 and 4 all, indeed, sustained significant exposures to carbon monoxide (and, accordingly, the other combustion products). This was established by reference to the elevated carboxyhaemoglobin levels.

2.1. Residents in open rooms in corridor 4

The carboxyhaemoglobin levels of these deceased (who were all found dead at the locus) were established by toxicological analysis of post mortem blood samples³³⁹¹.

Deceased	COHB measurement
Thomas Cook	55
Helen (Ella)	56

³³⁹⁰ David Purser, 14 June 2010, am, pp. 58-59.

³³⁹¹ Robert Anderson, 16 June 2010, pm.

Crawford	
Agnes Dennison	58.2
Margaret Lappin	80.2
Mary McKenner	81.8
Julia McRoberts	48
Margaret Dorothy (Dora) McWee	68.3
Ellen (Helen) Milne	47.8
Annie (Nan) Stirrat	63
Annie Thomson	71.8

2.2. Residents in corridor 4 rooms with closed doors

2.2.1. Measurements were taken of the carboxyhaemoglobin levels of Robina Burns and Isabella MacLeod (who were both rescued alive from the scene) when they arrived at hospital. From these figures the carboxyhaemoglobin levels which they had achieved by the time they left the locus may be estimated³³⁹².

2.2.2. Robina Burns had a measured carboxyhaemoglobin figure of 38% on admission to hospital. She had received approximately 23-33 minutes of oxygen. She accordingly had sustained a 43-49% carboxyhaemoglobin level by the time she was taken from the scene, with the actual figure likely to be at the lower end of the spectrum³³⁹³.

2.2.3. Isabella MacLeod was in cardiac arrest when she was rescued. She had a measured carboxyhaemoglobin figure of 25.8%. The back calculated figure was 43-57%, with the actual figure likely to be at the lower end of that spectrum³³⁹⁴.

³³⁹² David Purser, 14 June 2010, am, pp. 60-62

³³⁹³ David Purser, 14 June 2010, pm, pp. 73-76, 15 June 2010, am, pp. 28-29.

³³⁹⁴ David Purser, 14 June 2010, pm, p. 76, 15 June 2010, am, p. 3.

2.3. *Residents in corridor 3 with doors open*

2.3.1. Measurements were taken of the carboxyhaemoglobin levels of Isabella MacLachlan and Margaret Gow (who were both rescued alive from the scene) when they arrived at hospital. From these figures the carboxyhaemoglobin levels which they had achieved by the time they left the locus may be estimated.

2.3.2. Isabella MacLachlan had a carboxyhaemoglobin level of 29.6% on admission to hospital. She had received approximately 62-73 minutes of oxygen administration. She accordingly had sustained a 42-55% carboxyhaemoglobin level by the time she was taken from the scene, with the likelihood being that the true figure was at the lower end of this spectrum³³⁹⁵.

2.3.3. Margaret Gow had a carboxyhaemoglobin level of 24.7% on admission to hospital. She had received approximately 51-66 minutes of oxygen administration. The back-calculated figure was 44-53%³³⁹⁶.

2.4. *Residents from corridor 3 with doors slightly ajar*

2.4.1. Jean Paterson had a carboxyhaemoglobin level of 19.6% on admission to hospital. The back-calculated value was 29-32%.

2.4.2. Richard Russell had a carboxyhaemoglobin level of 25.5% on admission to hospital. The back-calculated value was 35-38%

2.4.3. Jessie Hadcroft had a carboxyhaemoglobin level of 24.8% on admission to hospital. The back-calculated value was 38-41%³³⁹⁷.

³³⁹⁵ David Purser, 14 June 2010, am, pp. 129-131; 15 June 2010, am, pp. 52-55.

³³⁹⁶ David Purser, 15 June 2010, am, pp. 45, 55-56.

³³⁹⁷ David Purser, 15 June 2010, am, pp. 82-84.

Predicted effects

3. Professor Purser converted the data obtained from BRE Test 1 into graphs which related the mixture of gases inside rooms 15 and 11 to the likely times at which an individual in these rooms would suffer incapacitation and death as well as discomfort due to the heat effects of the temperature measurements³³⁹⁸.

3.1. In room 15 and the other rooms with open doors off corridor 4, at bed height, there was very little gas exposure until round about 6 minutes or so, when there was a very dramatic increase in the concentrations of all the gases. Very quickly indeed the occupant of that room would have become unconscious – at about 6.7 minutes. Had there been no hydrogen cyanide present, incapacitation would have occurred at about 7.5 minutes. Just before 8 minutes the lethal level of 50% carboxyhaemoglobin would have been reached (i.e. the point at which the occupant would either be dead or would have died even if rescued). The exposure to heat at bed height in this room would not have been sufficient to cause any form of pain or incapacitation before death, although the temperatures would have been sufficient to cause superficial post-mortem burns after 15-20 minutes³³⁹⁹.

3.2. In room 11, there was very slow penetration of toxic gases. A subject exposed to the conditions in this room would have experienced no heat hazard but a gradual slow loading of carbon monoxide would have occurred with a predicated percentage carboxyhaemoglobin of around 15% after 30 minutes. It would have taken 46 minutes before an occupant had sustained a sufficient dose of carbon monoxide to lead to loss of consciousness. In this room, there was no hydrogen cyanide, so it would have been carbon monoxide which would have been responsible for collapse. The 50% carboxyhaemoglobin level would have been reached at about 65 minutes³⁴⁰⁰.

³³⁹⁸ David Purser, 14 June 2010, am, pp. 81-84.

³³⁹⁹ David Purser, 14 June 2010, am, pp.100-106 under reference to Pro 1458, p. 99 (manuscript), pm, pp. 64-65.

³⁴⁰⁰ David Purser, 14 June 2010, am, pp. 106-114 under reference to Pro 2053, p. 30; pm, pp. 82-83; 15 June 2010, am, p. 38.

4. For a room occupant at bed height in one of the rooms in corridor 4 with open doors incapacitation and loss of consciousness would have occurred at around 6.5 minutes, due principally to the effects of hydrogen cyanide³⁴⁰¹, with a contribution from carbon monoxide and with the uptake of both gases driven by the high carbon dioxide concentration. The carboxyhaemoglobin concentration in an exposed subject would be predicted to reach 50% at around 7.9 minutes and death from asphyxia would be predicted at between 7 and 9 minutes, possibly a minute or so later in rooms further from the fire. Pain from heat exposure and burns would not be predicted before death. Even in rooms 16 and 17, where the highest temperatures were measured, occupants would have been unconscious due to the effects of asphyxiant gases before heat exposure would have been sufficient to cause pain and dead before any burns occurred. The sequence of events leading to death would be predicted to be hyperventilation, followed by loss of consciousness, deepening coma and cardio-respiratory failure due mainly to the combined effects of carbon monoxide and hydrogen cyanide. The principal agent causing cessation of breathing and circulation would be carbon monoxide³⁴⁰².

5. Professor Purser estimated that the residents who were taken out alive would have, on the basis of the BRE Test 1 results, sustained the following carboxyhaemoglobin levels by the time they were rescued:

5.1. Robina Burns – 42-56%³⁴⁰³.

5.2. Isabella MacLeod. Based upon the fire test data a forward predicted blood level of 26-32% would be predicted after 41 minutes exposure in her room. This would have increased rapidly when she was rescued and taken through the smoke-filled corridor, giving a final value of 34-41%. Her small body-weight might have resulted in a somewhat increased rate of uptake. In addition, there

³⁴⁰¹ Although Blood samples for the deceased who died at the scene were tested for hydrogen cyanide, with negative results, this does not imply that these deceased were not exposed to hydrogen cyanide at the scene, or that the findings in BRE Test 1 of hydrogen cyanide invalidates the BRE test: hydrogen cyanide is very unstable in blood post mortem; and the measurement of hydrogen cyanide post mortem requires very sensitive instrumentation. The techniques used would not have detected levels below 0.52 mg/l: Robert Anderson, 16 June 2010, pm.

³⁴⁰² David Purser, 14 June 2010, am, pp. 137-140.

³⁴⁰³ David Purser, 14 June 2010, pm, p. 76.

was some evidence of heat penetrating through her bedroom door, which would also have increased the figure³⁴⁰⁴.

6. From the BRE Test 1 results for corridor 3, the predicted carboxyhaemoglobin levels would have been as follows³⁴⁰⁵:-

6.1. Margaret Gow – 22-29%

6.2. Isabella MacLachlan – 20-26%

6.3. Closed bedrooms – 12%

7. These predicted figures are markedly different from the actual exposure experienced by residents in corridor 3, in particular by Margaret Gow and Isabella MacLachlan. This is the case even though the BRE work assumed that the corridor fire door between corridor 3 and corridor 4 had been ajar from the outset – whereas the conclusion on the evidence is that it was probably blown open at some point during the incident. This invites the conclusion that, so far as corridor 3 is concerned, the ingress of toxic gases was significantly greater than modeled in the BRE Test 1.

Note to Chapter 40

There are no submissions from interested parties which call for comment.

³⁴⁰⁴ David Purser, 14 June 2010, pm, pp.77-80, 15 June 2010, am, pp. 3-4, 30-36.

³⁴⁰⁵ David Purser, 15 June 2010, am, pp. 44-45.

CHAPTER 41: WHERE AND WHEN EACH DEATH TOOK PLACE

I am required in terms of section 6(1)(a) to decide where and when each death took place. I make the following findings:

- 1. Robina Burns died in the Coronary Care Unit at Glasgow Royal Infirmary at or about 7 p.m. on 2 February 2004.**
- 2. Thomas Cook died in room 16 at Rosepark Care Home at or about 0438 hours on 31 January 2004**
- 3. Helen (Ella) Crawford died in room 14 at Rosepark Care Home at or about 0438 hours on 31 January 2004**
- 4. Agnes Dennison died in room 17 at Rosepark Care Home at or about 0438 hours on 31 January 2004**
- 5. Margaret Gow died at Stobhill Hospital at or about 1040 hours on 2 February 2004.**
- 6. Margaret Lappin died in room 12 at Rosepark Care Home at or about 0439 hours on 31 January 2004**
- 7. Isabella MacLachlan died at Wishaw General Hospital at or about 0335 hours on 1 February 2004**
- 8. Isabella MacLeod died at Stobhill Hospital at or about 0445 hours on 1 February 2004**
- 9. Mary McKenner died in room 13 at Rosepark Care Home at or about 0439 hours on 31 January 2004**
- 10. Julia McRoberts died in room 9 at Rosepark Care Home at or about 0438 hours on 31 January 2004**

11. Margaret Dorothy (Dora) McWee died in room 15 at Rosepark Care Home at or about 0438 hours on 31 January 2004

12. Ellen (Helen) Milne died in room 13 at Rosepark Care Home at or about 0438 hours on 31 January 2004

13. Annie (Nan) Stirrat died in room 9 at Rosepark Care Home at or about 0438 hours on 31 January 2004

14. Annie Thomson died in room 14 at Rosepark Care Home at or about 0438.30 hours on 31 January 2004

General

Deceased who died in hospital

1. Four of the deceased – Robina Burns, Margaret Gow, Isabella MacLachlan and Isabella MacLeod - were rescued alive from Rosepark Care Home and died subsequently in hospital. The place, time and date of death of each of these deceased is a matter of agreement and can, in any event, be identified from medical records. The references for each deceased are set out below.

Deceased who died at the locus

2. The other ten deceased were found dead at Rosepark Care Home following the fire.

Place of death

3.1. It is a matter of agreement that each of these deceased died at Rosepark Care Home on 31 January 2004.

3.2. It may be concluded that each of these deceased died in his or her bedroom. Seven of them were found after the fire in their bedrooms. The three others were moved to the dayroom from their bedrooms but it can be concluded from the times of death that each of them died in his or her bedroom.

Time of death

4. Times of death of these deceased were estimated by Professor Purser. Professor Purser was well qualified to offer opinion evidence as to the effects of toxic gases on the human body and to carry out the analyses which he explained in evidence. His estimates were based on the data from BRE Test 1 and proceeded on the assumption that the smoke alarm which was activated at or about 0428 hours corresponded to the ignition of the fire in the BRE Test 1³⁴⁰⁶. His timings have to be corrected to allow for the short period of time which is likely, in fact, to have passed between the activation of the smoke detector within cupboard A2 and the fire at Rosepark reaching a stage equivalent to the ignition of two number 7 cribs³⁴⁰⁷. For reasons set out earlier, an adjustment of about 2 minutes would be appropriate, recognizing that there is inevitably a measure of approximation involved in the exercise in any event.

5. The data generated by BRE Test 1 disclosed the concentrations of toxic fire gases to which an occupant of a room off corridor 4 would have been exposed in the course of a fire (assuming that the BRE test was reasonably representative of the fire at Rosepark). These concentrations are shown in Figure 3 of Professor Purser's report, Pro 2053³⁴⁰⁸. Professor Purser has, using standard methodology, derived Figure 4 from that data, to show inter alia the percentage carboxyhaemoglobin dose which would be achieved over time in the circumstances disclosed by the BRE Test 1 data.

6. The actual time of death of each deceased (based on the assumption that the BRE Test 1 results reasonably reflect the actual fire at Rosepark, and assuming that ignition of the BRE test rig corresponded to the fire alarm activation at Rosepark) may be ascertained by mapping the percentage carboxyhaemoglobin of each deceased

³⁴⁰⁶ David Purser, 14 June 2010, pm, pp. 9-26

³⁴⁰⁷ David Purser, 14 June 2010, pm, pp. 24-26

³⁴⁰⁸ Page 19.

as ascertained by toxicological analysis post mortem onto Professor Purser's graph (derived from the BRE Test 1 results) in Figure 4 (p. 20) of Pro 2053³⁴⁰⁹. Professor Purser undertook that exercise, rounding to the nearest half minute, and making adjustments: (a) in the case of Julia McRoberts to allow for her larger body weight³⁴¹⁰; and (b) in the case of Thomas Cook and Helen (Ella) Crawford, for the fact that they were found on the floor of their respective rooms and may be inferred to have been more active than the other residents (and therefore inhaling carbon monoxide more quickly) before they lost consciousness³⁴¹¹. These timings, which, as noted above, require to be corrected to allow for the short period of time which is likely in fact to have passed between the activation of the smoke detector within cupboard A2 and the fire at Rosepark reaching a stage equivalent to the ignition of two number 7 cribs.

7. The relevant figures are as follows³⁴¹²:-

Deceased	COHB measurement	Time derived by Professor Purser	Corrected time allowing for period between smoke detector activation and a fire equivalent to "ignition" in BRE Test 1
Thomas Cook	55	04.35.30	04.37.30
Helen (Ella) Crawford	56	04.35.30	04.37.30
Agnes Dennison	58.2	04.36	04.38
Margaret Lappin	80.2	04.37	04.39
Mary McKenner	81.8	04.37	04.39
Julia McRoberts	48	04.36	04.38

³⁴⁰⁹ David Purser, 14 June 2010, pm, pp. 6-9.

³⁴¹⁰ David Purser, 14 June 2010, pm, pp. 32-34

³⁴¹¹ David Purser, 14 June 2010, pm, pp. 36-37.

³⁴¹² The toxicological measurements were spoken to by Robert Anderson, 16 June 2010, pm, pp. 47ff. The times derived by Professor Purser were spoken to by him, 14 June 2010, pm, pp. 6-36.

Margaret Dorothy (Dora) McWee	68.3	04.36	04.38
Ellen (Helen) Milne	47.8	04.36	04.38
Annie (Nan) Stirrat	63	04.36	04.38
Annie Thomson	71.8	04.36.30	04.38.30

Specific findings

Robina Burns

8. Robina Burns died in the Coronary Care Unit of Glasgow Royal Infirmary at or about 7 pm on 2 February 2004³⁴¹³.

Thomas Cook

9. Thomas Cook died at Rosepark Care Home on 31 January 2004³⁴¹⁴.

10. Thomas Cook died at or about 0438 hours on 31 January 2010³⁴¹⁵.

11. Mr. Cook's body was moved from his bedroom, room 16, to the day room by fire fighters³⁴¹⁶. Having regard to the time of death, he was already dead by that time.

Helen (Ella) Crawford

12. Helen (Ella) Crawford died at Rosepark Care Home on 31 January 2004³⁴¹⁷.

13. She died in room 14. Following the fire, her body was found lying on the floor beside her bed in her room, room 14³⁴¹⁸, and it may be concluded that she died there.

³⁴¹³ Joint Minute, para. 4; Professor Langhorne, 21 December 2009, pm, p. 25 under reference to Pro 1714.

³⁴¹⁴ Joint Minute, para. 4.

³⁴¹⁵ Supra

³⁴¹⁶ David Buick, 7 December 2009, pm, pp. 8-10; Gordon Hector, 14 December 2009, am, pp. 76-77.

³⁴¹⁷ Joint Minute, para. 27.

14. Helen (Ella) Crawford died at or about 0436 hours on 31 January 2004³⁴¹⁹.

Agnes Dennison

15. Agnes Dennison died at Rosepark Care Home on 31 January 2004³⁴²⁰.
16. She died in room 17.
17. Agnes Dennison died at or about 0438 hours on 31 January 2004³⁴²¹.

Margaret Gow

18. Margaret Gow died at Stobhill Hospital at or about 1040 hours on 2 February 2004³⁴²².

Margaret Lappin

19. Margaret Lappin died at Rosepark Care Home on 31 January 2004³⁴²³.
20. She died in room 12. Her body was moved by firefighters to the dayroom, where she was examined by the police surgeon³⁴²⁴.
21. Margaret Lappin died at or about 0439 hours on 31 January 2004³⁴²⁵.
22. Mrs. Lappin's body was moved from her room, room 12, to the dayroom by firefighters³⁴²⁶. Having regard to the time of her death, it may be concluded that she had died in room 12.

³⁴¹⁸ Alan Campbell, 11 December 2009, am, pp. 74-76; David Walker, 21 December 2009, pm, pp. 67-68.

³⁴¹⁹ David Purser,

³⁴²⁰ Joint Minute, para. 36.

³⁴²¹ Supra.

³⁴²² Joint Minute, para. 46

³⁴²³ Joint Minute para. 59.

³⁴²⁴ David Walker, 21 December 2009, pp. 71-72.

³⁴²⁵ Supra

Mary McKenner

23. Mary McKenner died at Rosepark Care Home on 31 January 2004³⁴²⁷.
24. She died in room 13. She was found in bed there following the fire³⁴²⁸.
25. Mary McKenner died at or about 0439 hours on 31 January 2004³⁴²⁹.

Isabella MacLachlan

26. Isabella MacLachlan died at Wishaw General Hospital at or about 0335 hours on 1 February 2004³⁴³⁰.

Isabella MacLeod

27. Isabella MacLeod died at Stobhill Hospital at or about 0445 hours on 1 February 2004³⁴³¹.

Julia McRoberts

28. Julia McRoberts died at Rosepark Care Home on 31 January 2004³⁴³².
29. Julia McRoberts died at or about 0438 hours on 31 January 2004³⁴³³.
30. She was found in her bed, in room 9, by fire fighters and her body was moved by them onto the floor of her room³⁴³⁴. Having regard to the time of her death, she was already dead. It may be concluded that she died in room 9.

³⁴²⁶ James Clark, 9 December 2009, am, pp. 94-96.

³⁴²⁷ Joint Minute, para. 69.

³⁴²⁸ David Walker, 21 December 2009, pm, pp. 69-70.

³⁴²⁹ Supra

³⁴³⁰ Joint Minute, para. 79.

³⁴³¹ Joint Minute, para. 92.

³⁴³² Joint Minute, para. 105.

³⁴³³ Supra

³⁴³⁴ David Ferguson, 8 December 2009, pm, pp. 26-30.

Margaret Dorothy (Dora) McWee

31. Margaret Dorothy (Dora) McWee died at Rosepark Care Home on 31 January 2004³⁴³⁵.

32. She died in room 15. Following the fire Margaret Dorothy (Dora) McWee was found in bed in room 15. There was no sign that she had tried to get out of bed³⁴³⁶.

33. Margaret Dorothy (Dora) McWee died at or about 0438 hours on 31 January 2004³⁴³⁷.

Ellen (Helen) Milne

34. Ellen (Helen) Milne died at Rosepark Care Home on 31 January 2004³⁴³⁸.

35. She died in room 13. Following the fire, Ellen (Helen) Milne was found in bed in her room, room 13. There was no sign that she had tried to get out of bed³⁴³⁹.

36. Ellen (Helen) Milne died at or about 0438 hours on 31 January 2004³⁴⁴⁰.

Annie (Nan) Stirrat

37. Annie (Nan) Stirrat died at Rosepark Care Home on 31 January 2004³⁴⁴¹.

38. She died in room 9. Following the fire, Annie (Nan) Stirrat was found in bed in her room, room 9. There was no sign that she had tried to get out of bed³⁴⁴².

³⁴³⁵ Joint Minute, para. 115.

³⁴³⁶ David Walker, 21 December 2009, pm, pp. 63-67.

³⁴³⁷ Supra

³⁴³⁸ Joint Minute, para. 125.

³⁴³⁹ David Walker, 21 December 2009, pm, p. 69.

³⁴⁴⁰ Supra

³⁴⁴¹ Joint Minute, para. 135.

³⁴⁴² David Walker, 21 December 2009, pm, p. 71.

39. Annie (Nan) Stirrat died at or about 0438 hours on 31 January 2004³⁴⁴³.

Annie Thomson

40. Annie Thomson died at Rosepark Care Home on 31 January 2004³⁴⁴⁴.

41. She died in room 14. Following the fire, Annie Thomson was found in bed in her room, room 14. There was no sign that she had tried to get out of bed³⁴⁴⁵.

42. Annie Thomson died at or about 0438 hours on 31 January 2004³⁴⁴⁶.

Note to Chapter 41

There are no submissions from interested parties.

³⁴⁴³ Supra

³⁴⁴⁴ Joint Minute, para. 145.

³⁴⁴⁵ David Walker, 21 December 2009, pm, pp. 67-68.

³⁴⁴⁶ Supra.

CHAPTER 42: THE CAUSE OR CAUSES OF DEATH OF EACH DECEASED

Section 6(1)(b): the cause or causes of death of each deceased. I make the following findings:

- 1. The death of Robina Burns was caused by acute tracheobronchitis due to inhalation of smoke and fire gases. Ischaemic heart disease due to coronary artery atheroma and cardiac amyloidis were potential contributing causes.**
- 2. The death of Thomas Cook was caused by the inhalation of smoke and fire gases.**
- 3. The death of Helen (Ella) Crawford was caused by the inhalation of smoke and fire gases.**
- 4. The death of Agnes Dennison was caused by the inhalation of smoke and fire gases.**
- 5. The death of Margaret Gow was caused by bronchopneumonia due to the inhalation of smoke and fire gases.**
- 6. The death of Margaret Lappin was caused by the inhalation of smoke and fire gases.**
- 7. The death of Mary McKenner was caused by the inhalation of smoke and fire gases.**
- 8. The death of Isabella MacLachlan was caused by bronchopneumonia due to inhalation of smoke and fire gases. Chronic obstructive airways disease was a potentially contributing cause of death.**
- 9. The death of Isabella MacLeod was caused by bronchopneumonia due to hypoxic brain damage and the inhalation of smoke and fire gases.**

- 10. The death of Julia McRoberts was caused by the inhalation of smoke and fire gases.**
- 11. The death of Margaret Dorothy (Dora) McWee was caused by the inhalation of smoke and fire gases.**
- 12. The death of Ellen (Helen) Milne was caused by the inhalation of smoke and fire gases.**
- 13. The death of Annie (Nan) Stirrat was caused by the inhalation of smoke and fire gases.**
- 14. The death of Annie Thomson was caused by the inhalation of smoke and fire gases.**

General commentary

1. The bedroom of each of the deceased who was found dead at Rosepark was a room off corridor 4 the door of which was open. On the basis of the BRE Test 1 findings, each of these individuals was exposed to significant levels of smoke and toxic fire gases. Professor Purser's analysis showed that such exposure would have been fatal. Significant exposure to carbon monoxide (and, therefore, other toxic fire gases) was confirmed by the high carboxyhaemoglobin levels found in the blood of each of these deceased post mortem. All of these considerations support the conclusion of the pathologist at post mortem that, in each case, their cause of death was that the deceased had died as a result of inhalation of smoke and fire gases.

2. Each of the deceased who died subsequently in hospital was also exposed to smoke and toxic fire gases. Significant exposure to carbon monoxide (and, therefore, other toxic fire gases) was established by reference to the elevated carboxyhaemoglobin level which each of these patients had on admission to hospital. In the case. Each of them suffered from recognized sequelae of the inhalation of smoke and fire gases, and died on 1st or 2nd February 2004. These consideration

support the conclusion of the pathologist at post mortem that each of these deceased had died as a result of sequelae of the inhalation of smoke and fire gases.

Findings specific to individual deceased

Robina Burns

Proposed finding: The death of Robina Burns was caused by acute tracheobronchitis due to inhalation of smoke and fire gases. Ischaemic heart disease due to coronary artery atheroma and cardiac amyloidis were potential contributing causes.

1. Post mortem examination disclosed purulent secretions in the trachea and the bronchi – the visible signs of tracheobronchitis³⁴⁴⁷.

Dr Marjorie Black, 22 December 2009, am, pp. 64- under reference to Pro 1350.

2. By the time Robina Burns was taken from the locus, she had sustained significant exposure to toxic fire gases. Her blood carboxyhaemoglobin level when she arrived at hospital was 38.6%³⁴⁴⁸. This suggested significant smoke inhalation and exposure to carbon monoxide³⁴⁴⁹. Back-calculation from this figure to the time when she was rescued brings out an at the scene carboxyhaemoglobin level of 43 to 49%³⁴⁵⁰. Notwithstanding that her bedroom door had provided a significant degree of protection against heat and the ingress of toxic gases, the slow seepage of toxic gases into the room over the period while she remained there was sufficient, on the basis of the BRE Test 1 results, to expose her to 42-56% carboxyhaemoglobin³⁴⁵¹. And she was further exposed in the course of rescue.

³⁴⁴⁷ Marjorie Black, 22 December 2009, am, pp. 64-70 under reference to Pro 1350

³⁴⁴⁸ Peter Langhorne, 21 December 2010, pm, p. 8, referring to Production 1714, p. 1.

³⁴⁴⁹ Peter Langhorne, 21 December 2010, pm, p. 8.

³⁴⁵⁰ David Purser, 14 June 2010, pm, p. 74.

³⁴⁵¹ David Purser, 14 June 2010, pm, p. 76.

Thomas Cook

Thomas Cook died as a result of the inhalation of smoke and fire gases³⁴⁵².

Helen (Ella) Crawford

Helen (Ella) Crawford died as a result of the inhalation of smoke and fire gases.³⁴⁵³

Agnes Dennison

1. Agnes Dennison died as a result of the inhalation of smoke and fire gases³⁴⁵⁴.

Margaret Gow

1. Margaret Gow sustained significant exposure to smoke and toxic fire gases.
2. She died of bronchopneumonia³⁴⁵⁵. Both lungs were found to be pneumonic at post mortem and this was confirmed histologically³⁴⁵⁶.
3. The bronchopneumonia was a consequence of the inhalation of smoke and fire gases³⁴⁵⁷.

Margaret Lappin

1. Margaret Lappin died as a result of the inhalation of smoke and fire gases³⁴⁵⁸.

³⁴⁵² Joint Minute, para. 18; Dr. Marjorie Black, 22 December 2010, am, pp. 1-13, under reference to Pro 1355

³⁴⁵³ Joint Minute, para. 28; Dr. Marjorie Black, 22 December 2010, am, pp. 13-16 under reference to Pro 1354

³⁴⁵⁴ Joint Minute, para. 37; Marjorie Black, 22 December 2010, am, pp. 16-20, under reference to Pro 1356.

³⁴⁵⁵ Marjorie Black, 22 December 2009, am, pp. 60-64, under reference to Pro 1349.

³⁴⁵⁶ Marjorie Black, 22 December 2009, am, pp. 61-63.

³⁴⁵⁷ Marjorie Black, 22 December 2009, am, p. 60

³⁴⁵⁸ Joint Minute, para. 60; Marjorie Black, 22 December 2010, am, pp. 20-23 under reference to Pro 1357.

Mary McKenner

1. Mary McKenner died as a result of the inhalation of smoke and fire gases³⁴⁵⁹

Isabella MacLachlan

1. The cause of Isabella MacLachlan's death was bronchopneumonia³⁴⁶⁰. Dr. Black's conclusion to that effect was justified by her findings at post mortem of evidence of bronchopneumonia confirmed by histological examination³⁴⁶¹.
2. Mrs MacLachlan had sustained significant exposure to smoke and toxic fire gases. On admission to hospital she had an elevated carboxyhaemoglobin level of 29.6%.
3. The bronchopneumonia was caused by the inhalation of smoke and fire gases³⁴⁶². Exposure to smoke and fire gases injures the airways and increases the risk of an infection developing in the lungs³⁴⁶³.
4. A pre-existing chronic obstructive pulmonary disease may have contributed to the development of the bronchopneumonia³⁴⁶⁴.

Isabella MacLeod

1. Isabella MacLeod died of bronchopneumonia³⁴⁶⁵. At post mortem her lungs were found to be bronchopneumonic. This was confirmed by histological examination, She was also found to have sustained hypoxic brain damage³⁴⁶⁶.

³⁴⁵⁹ Joint Minute, para. 70; Marjorie Black, 22 December 2009, pp. 23-26 under reference to Pro 1362.

³⁴⁶⁰ Marjorie Black, 22 December 2009, am, pp. 41-51 under reference to Pro 1351.

³⁴⁶¹ Marjorie Black, 22 December 2009, am, pp. 42-46.

³⁴⁶² Marjorie Black, 22 December 2009, am, pp. 41-51 under reference to Pro 1351.

³⁴⁶³ Marjorie Black, 22 December 2009, am, pp. 42-43.

³⁴⁶⁴ Marjorie Black, 22 December 2009, am, p. 42.

³⁴⁶⁵ Marjorie Black, 22 December 2009, am, p. 52 under reference to Pro 1352.

³⁴⁶⁶ Marjorie Black, 22 December 2009, am, pp. 53-54.

2. The bronchopneumonia was caused by hypoxic brain damage and the inhalation of smoke and fire gases³⁴⁶⁷.

2.1. Hypoxic brain damage occurs when the brain is damaged as a result of lack of oxygen reaching it. This can in turn lead to cardio-respiratory arrest when the heart stops beating and the lungs stop breathing³⁴⁶⁸.

2.2. The hypoxic brain damage was a consequence of the inhalation of smoke and fire gases³⁴⁶⁹. Exposure to fire gases reduces the flow of oxygen in the blood. If the level of oxygen in the blood is too low the major organs do not receive enough oxygen to continue to function. The brain is particularly susceptible to a lack of oxygen. Inhalation of fire gases can accordingly cause the brain to shut down³⁴⁷⁰.

2.3. Bronchopneumonia may be a direct effect of smoke damaging the airways and the lungs. Someone who is severely unwell with hypoxic brain damage will also generally be at greater risk of infection, particularly bronchopneumonia³⁴⁷¹.

Julia McRoberts

1. Julia McRoberts died as a result of the inhalation of smoke and fire gases³⁴⁷².

Margaret Dorothy (Dora) McWee

1. Margaret Dorothy (Dora) McWee died as a result of the inhalation of smoke and fire gases³⁴⁷³

³⁴⁶⁷ Marjorie Black, 22 December 2009, am, pp. 52-53.

³⁴⁶⁸ Marjorie Black, 22 December 2009, am, pp. 52-53.

³⁴⁶⁹ Marjorie Black, 22 December 2009, am, p. 52.

³⁴⁷⁰ Marjorie Black, 22 December 2009, am, pp. 52-53.

³⁴⁷¹ Marjorie Black, 22 December 2009, am, p. 53.

³⁴⁷² Joint Minute para. 106; Marjorie Black, 22 December 2009, pp. 26-29 under reference to Pro 1359.

³⁴⁷³ Joint Minute, para. 116; Marjorie Black, 22 December 2009 pp. 29-32 under reference to Pro 1361.

Ellen (Helen) Milne

1. Ellen (Helen) Milne died as a result of the inhalation of smoke and fire gases³⁴⁷⁴.

Annie (Nan) Stirrat

1. Annie (Nan) Stirrat died as a result of the inhalation of smoke and fire gases³⁴⁷⁵.

Annie Thomson

1. Annie Thomson died as a result of the inhalation of smoke and fire gases³⁴⁷⁶

Note to Chapter 42

There are no submissions by interested parties which call for comment.

³⁴⁷⁴ Joint Minute, para. 126; Marjorie Black, 22 December 2009, pp. 32-35, under reference to Pro 1358.

³⁴⁷⁵ Joint Minute, para. 136; Marjorie Black, 22 December 2009, pp. 36-38 under reference to Pro 1353.

³⁴⁷⁶ Joint Minute, para. 146; Marjorie Black, 22 December 2009, pp. 38-40 under reference to Pro 1360.

CHAPTER 43: THE CAUSE OF THE FIRE

This Chapter sets out the reasons for the decision which I have made in terms of section 6(1)(b) of the 1976 Act regarding the cause of any accident resulting in the deaths. In the context of this Inquiry, the accident was the fire which broke out at Rosepark Care Home on 31 January 2004.

My decision reflects to a very substantial extent the submissions which have been made on behalf of the Crown because I accept them in their entirety.

My conclusion is that the accident resulting in the deaths was caused by an earth fault occurring where cable V passed through the righthand knockout at the back of the distribution box in cupboard A2. The live conductor of cable V came into contact with the metal edge of the knockout such as to generate an arc. Arcing is the flow of electricity through air. An arc may be generated if an earth fault occurs, generating significant current flow. The PVC insulation of cable V was not protected by an outer cable sheath at the point where it entered the knockout. It was pressing against the edge of the knockout which had no grommet or other form of cable protection. The edge of the knockout was sufficiently sharp to damage the PVC insulation, which had become abraded or damaged over time by the metal edge of the knockout. The arc generated sparks which escaped from the distribution board. Those sparks either ignited solid flammable materials stored within the cupboard, thereby starting the fire, or a flammable cloud within the cupboard which in turn ignited solid flammable materials within the cupboard.

The factum probandum (the fact in issue)

1. The factum probandum (the fact in issue) for the purposes of section 6(1)(b) in the present inquiry is the cause or causes of the fire which broke out in cupboard A2 at Rosepark Care Home on 31 January 2004.

Introductory remarks

2. In order for a fire to occur there requires to be a source of ignition, a fuel and oxygen³⁴⁷⁷.

3. Cupboard A2 contained potentially flammable materials and oxygen. The key issue in the present context is what the source of ignition was for the fire.

4. Although there are other theoretically possible sources of ignition, the only sources of ignition which, on the basis of the evidence available in this case, arise as practical possibilities are a fire of electrical origin and mechanisms involving human agency³⁴⁷⁸.

5. For the reasons which I have set out below³⁴⁷⁹, mechanisms involving human agency can be excluded.

6. For reasons which are set out below³⁴⁸⁰, all potential electrical sources of ignition may be positively excluded apart from two:-

6.1. A short circuit at the cable V knockout.

6.2. The ordinary operation of a circuit breaker within the distribution board.

Short circuit at cable V knockout

7. This explanation proceeds as follows.

7.1. The live conductor of cable V came into contact with the metal edge of the knockout such as to generate an arc.

³⁴⁷⁷ Stuart Mortimore, 17 March 2010, am, p. 61.

³⁴⁷⁸ Stuart Mortimore, 16 March 2010, am, pp. 23-26. The reference to an “incendive electrical fault” requires to be read along with his recognition that a mechanism involving the ordinary operation of a circuit breaker igniting a flammable cloud of gas was possible.

³⁴⁷⁹ Paragraphs 25 to 44.

³⁴⁸⁰ Paragraphs 45 to 56.

7.2. Sparks were generated, which escaped from the distribution board.

7.3. Those sparks ignited a suitable fuel – either solid flammable materials stored within the cupboard, thereby starting the fire or a flammable cloud within the cupboard which in turn ignited solid flammable materials within the cupboard.

Operation of a circuit breaker

8. This explanation proceeds as follows:-

8.1. One of the aerosols in the cupboard released its contents.

8.2. A flammable cloud formed around the distribution board

8.3. A circuit breaker tripped, as a result, for example, of a light bulb blowing.

8.4. This ignited the flammable cloud which in turn ignited solid flammable materials within the cupboard thereby starting the fire.

General comment

9. Each of these two mechanisms would, if the matter had been considered in advance, have been regarded as highly unlikely. However, as Dr Vince observed, given that a fire occurred in the cupboard, something a priori quite unlikely has happened³⁴⁸¹. It does not follow that the Court cannot with hindsight, upon an assessment of the whole evidence, determine, on the balance of probabilities, what caused the fire. Low probability events can nevertheless occur³⁴⁸². Many fire investigations disclose that something improbable has happened³⁴⁸³ but even freak events can generally be explained³⁴⁸⁴.

³⁴⁸¹ Ivan Vince, 11 August 2010, am, p. 34.

³⁴⁸² John Madden, 31 March 2010, am, p. 48.

³⁴⁸³ James Lygate, 10 August 2010, am, p. 64.

³⁴⁸⁴ James Lygate, 10 August 2010, am, pp. 64-65

10. There is a body of circumstantial evidence³⁴⁸⁵ which points to the conclusion that arcing at the cable V knockout was the source of ignition.

10.1. There was arcing at the cable V knockout³⁴⁸⁶.

10.2. The cable protection which was intended to protect against arcing at the cable V knockout was missing³⁴⁸⁷. In the circumstances of the distribution board, a mechanism which would have resulted in arcing can readily be postulated³⁴⁸⁸.

10.3. For reasons set out below I conclude that the Merlin Gerin circuit breaker, subjected to a fire from below, would have tripped before the cabling at the cable V knockout would have been sufficiently degraded to cause arcing at that location. This proposition justifies the conclusion that the arcing at the cable V knockout preceded the fire.

10.4. It is known that arcing can, given the right conditions, cause fire³⁴⁸⁹. Further, experiments undertaken by the HSL showed that arcing at the cable V knockout could readily have generated sparks which could have escaped from the distribution board and fallen down to the very location where the fire started.

11. The key difficulty with this explanation lies in the question of ignition.

11.1. The HSL experiments failed, despite using favourable experimental conditions as compared with the situation at Rosepark, to ignite solid material by means of sparks from an earth fault at the cable V knockout (except where the material had been soaked in a flammable liquid). Mr Mortimore accepted that ignition of solid material by a spark was unlikely. However the possibility that such ignition could occur was not ruled out as wholly impossible.

³⁴⁸⁵ On the assessment of circumstantial evidence, see below.

³⁴⁸⁶ Chapter 11, paragraph 45.2.

³⁴⁸⁷ Chapter 11, paras. 46 to 50.

³⁴⁸⁸ See further below.

³⁴⁸⁹ Chapter 11, paras. 8-10.

11.2. The HSL experiments showed that it was easy for a spark to ignite a flammable atmosphere. Such a flammable atmosphere could be generated by a release from an aerosol. Such releases have been known to occur – principally in aerosols which have previously been stored in unsuitable conditions and which have become corroded – but are rare.

11.3. The HSL experiments also showed that it would be possible for a spark to ignite solid material which had been soaked in flammable liquid. Some content to the possibility that such a situation could have existed in cupboard A2 by reason of the presence of fragments of a glass bottle which had previously contained a cologne containing about 85% ethanol³⁴⁹⁰, although it was difficult to imagine how this bottle could come to have been broken in advance of the fire. Alternatively this situation could have been created by a release from an aerosol.

12. On the other hand, there is no positive evidence which supports the alternative possibility (i.e. a spark in the normal operation of a circuit breaker igniting a flammable atmosphere at the distribution board). That explanation has to start with a flammable cloud specifically in the vicinity of the distribution board. The only source for such a cloud, on the evidence, would have been a release from an aerosol. And the presence of such a cloud would have to have coincided with the tripping of a circuit breaker. A circuit breaker may trip at any time, but if it is correct that Mrs Burns' evidence about her light bulb "popping" relates to an event after the fire had started, there is no positive evidence that a circuit breaker did in fact trip before the fire started.

Summary of expert views

13. Three experts expressed opinions directly on the question of causation: Mr Mortimore; Dr Lygate; and Dr Vince. In addition, Dr Jagger gave evidence of work

³⁴⁹⁰ Chapter 13, paragraph 14.

done which bears on the issue and expressed views on the probability of certain scenarios.

(a) Mr Mortimore concluded that the fire had been caused by an arc at the cable V knockout. An arc had undoubtedly occurred at the cable V knockout. This had occurred before an arc at the busbar. Protective insulation which should have been in place to prevent just such an event occurring at the cable V knockout was missing. In Mr Mortimore's opinion, it was unlikely that the arc at the cable V knockout occurred after the fire started, because the Merlin Gerin circuit breaker would probably have tripped in response to heat before cable V would have become sufficiently degraded to cause an arc. For these reasons, he discounted an explanation based on human agency (although he had other reasons for doing so as well). The aerosol release/circuit breaker theory required such an extraordinary coincidence of events that he excluded it.

(b) Dr Lygate considered that the proposition that the fire was caused by arcing at cable V was "so low a probability as to make the alternative hypothesis, namely that this fire was ignited by a discarded lit cigarette the more likely cause"³⁴⁹¹. While he did not preclude the possibility that Mr Mortimore was correct that arcing at cable V had caused the fire³⁴⁹², he considered this so improbable as to be almost excluded³⁴⁹³. His opinion was that the arcing at cable V occurred as a result of the effects of the fire³⁴⁹⁴. Dr Lygate stressed the difficulty that sparks generated by an arc at cable V would have in igniting solid materials³⁴⁹⁵. His view was that the development of the fire was likely to degrade cable V sufficiently to generate an arc before the circuit breaker tripped. He also considered that if the conditions for an arc were to be created by the operation of the washing machines, this would be likely to have happened while the machines were running or shortly thereafter³⁴⁹⁶. Dr Lygate accepted that if the fire was not caused by discarded smoking materials, an arc generated at the

³⁴⁹¹ James Lygate, 10 August 2010, pp. 36, 60-61. He acknowledged that some other ignition source in the right location would suffice: 67-68.

³⁴⁹² James Lygate, 10 August 2010, p. 52, pm, pp. 37-38

³⁴⁹³ James Lygate, 10 August 2010, pp. 53-54.

³⁴⁹⁴ James Lygate, 10 August 2010, p. 42.

³⁴⁹⁵ James Lygate, 10 August 2010, p. 42.

³⁴⁹⁶ James Lygate, 10 August 2010, am, p. 57.

cable V knockout was the likely cause³⁴⁹⁷. When the aerosol release/circuit breaker theory was put to him, he observed “You’re getting into the bounds of the very unlikely”³⁴⁹⁸.

(c) Dr Vince, like Dr Lygate, stressed the difficulty of igniting solid substances by means of a spark³⁴⁹⁹. He identified, as a possibility, that there was a leak of flammable propellant vapours from one of the many aerosol cans within the cupboard which could have been ignited by the ordinary operation of a circuit breaker within the distribution board³⁵⁰⁰. He acknowledged that there were a number of difficulties with this theory³⁵⁰¹. He accepted that it would not be unfair to characterize it as a speculative possibility³⁵⁰². His final conclusion was that it may not be possible to determine what caused the fire because of the serious problems attendant on each of the two mechanisms which had been identified³⁵⁰³.

(d) Dr Jagger spoke to the experiments which had been undertaken by the Health and Safety Laboratory. Particularly germane in the present context are those reported in Pro 1406³⁵⁰⁴. These illustrated the point relied upon by Dr Lygate and Dr Vince: in none of the experiments undertaken did sparks generated at the back of a distribution board ignite solid materials (except in the case of a solid which had been impregnated with a flammable liquid) even though the experimental setup used was more favourable to ignition than would have been the case at Rosepark. Dr Jagger stated that the likelihood of a spark from the distribution board igniting solid combustibles in the cupboard at Rosepark was remote, of very low probability³⁵⁰⁵. The report, Pro 1406, noted that the lifetime of ejected glowing particles is likely to be a few seconds at most, such that ignition of solid fuels by this means is unlikely³⁵⁰⁶. Dr Jagger

³⁴⁹⁷ James Lygate, 10 August 2010, am, p. 61, pm, p. 39.

³⁴⁹⁸ James Lygate, 10 August 2010, am, p. 88.

³⁴⁹⁹ Ivan Vince, 11 August 2010, am, pp. 37-40.

³⁵⁰⁰ Ivan Vince, 11 August 2010, am, pp. 35-36.

³⁵⁰¹ Ivan Vince, 11 August 2010, am, pp. 93-95.

³⁵⁰² Ivan Vince, 11 August 2010, am, p. 100.

³⁵⁰³ Ivan Vince, 11 August 2010, am, p. 34; see also pp. 96-97.

³⁵⁰⁴ These are described in more detail at paras. 77 ff below.

³⁵⁰⁵ Stuart Jagger, 22 March 2010, pm, pp. 4-6.

³⁵⁰⁶ Pro 1406, p. 38.

stated that aerosol cans have been known to leak and the leaks to ignite³⁵⁰⁷. When the scenario suggested by Dr Vince was put to him, he responded as follows³⁵⁰⁸:

“There are two events here. First of all in the scenario you’re proposing you have to have a spark and you have to have a release from the aerosol can. ... With a solid material all you have to do is have a spark. So again it’s the balance of the probability that there will be a release from the aerosol can against the possibility that the spark will ignite solid material. So judging between these two scenarios is, is quite, is difficult if not next to impossible,”

14. Each of these witnesses had undoubted expertise, although Mr Mortimore had perhaps a particular combination of expertise in both fire investigation and electrical engineering. Whether or not the cause of the accident which resulted in the deaths can be identified does not fall to be determined by the ipse dixit of any expert witness. It is my responsibility. I require to assess the evidence as a whole, to apply the relevant law on the assessment of evidence and to decide whether or not a particular cause has been established on the balance of probabilities.

General approach

15. The case in favour of the cable V knockout explanation is a circumstantial one. There is relevant guidance on dealing with circumstantial evidence:

15.1. Circumstantial cases “often embrace a number of presumptions and require a balance of conflicting probabilities”: Dickson, Evidence, paragraph 64.

15.2. In a circumstantial case it is necessary to consider the evidence as a whole: *Al Megrahi v. H.M. Advocate*, paras. 32, 36.

15.3. The nature of circumstantial evidence is such that it may be open to more than one interpretation. It is the function of the fact-finding tribunal to decide which interpretation to adopt: *Al Megrahi v. H.M. Advocate* paras. 32-36.

³⁵⁰⁷ Stuart Jagger, 22 March 2010, pm, pp. 11-12.

³⁵⁰⁸ Stuart Jagger, 22 March 2010, pm, pp. 12-13.

15.4. “Every one of the circumstances essential to the conclusion should be established by its own appropriate and independent proof; in other words, the superstructure of theory should only be raised on a foundation of undoubted facts”: Dickson, paragraph 108.

15.5. “When each of the probative facts contributes immediately its own inference to the common conclusion, their compound strength is multiplied as their number is increased; and they may jointly establish the fact in issue, although all of them, when viewed independently, may be explicable upon other hypotheses”: Dickson, paragraph 108; see also *Little v. H.M. Advocate* 1983 JC 16, 20 per the Lord Justice General (Lord Emslie).

15.6. “When proof of each of a series of facts raises an inference of the existence of another fact in the series – only the last of them inferring the existence of the fact in issue – the probability of the truth of the issue (in so far as it depends on that line of evidence) diminishes as the number of the facts increase, and the inconclusiveness of any one inference in the series is fatal to the whole. In this sense a circumstantial proof is like a chain, which cannot be stronger than its weakest link, and which becomes continually weaker as each new link is added, till it breaks with its own weight”: Dickson, paragraph 108.

15.7. “The existence of a single probative fact absolutely incompatible with a hypothesis deducible from all the other probative facts necessarily excludes that hypothesis; for, as the whole of the actual facts must have been consistent, some other hypothesis must exist, with which all the probative facts will coincide”: Dickson, paragraph 108.

15.8. “When the inconsistency between any of the probative facts and the hypothesis deducible from the rest of these facts is not absolute but probable, the conclusiveness of that hypothesis is diminished in proportion to the strength of the contrary probability”: Dickson, paragraph 108.

16. There is also relevant guidance on dealing with competing explanations, in particular in the case of *The Popi M* [1985] 1 WLR 948. The issue in that case was

whether a vessel had been lost as a result of the perils of the sea. It was established in the evidence that the vessel sank as a result of the ingress of water through a large aperture in its side. At trial, Bingham J was faced with a mass of expert evidence relating to the possibilities that the proximate cause of the loss was a collision with a submerged submarine on the one hand or wear and tear of the steel plating on the other. He held that the loss had been caused as a result of a collision with a submerged submarine, notwithstanding that he regarded it (for seven cogent reasons) as “so improbable that, if I am to accept the plaintiff’s invitation to treat it as the likely cause of the casualty, I (like the plaintiff’s experts) must be satisfied that any other explanation of the casualty can be effectively ruled out.” On appeal, the House of Lords held that Bingham J had erred. The essential basis of the decision is expressed in these observations of Lord Brandon of Oakbrook (p. 955D-E):

“... he [Bingham J] regarded himself as compelled to make a choice between the shipowners’ submarine theory on the one hand and underwriters’ wear and tear theory on the other, and he failed to keep in mind that a third alternative, that the shipowners had failed to discharge the burden of proof which lay on them, was open to him.”

17. Lord Brandon said this:

“My Lords, the late Sir Arthur Conan Doyle, in his book *The Sign of Four*, describes his hero, Mr Sherlock Holmes, as saying to the latter’s friend, Dr Watson: “How often have I said to you that, when you have eliminated the impossible, whatever remains, however improbable, must be the truth?” It is, no doubt, on the basis of this well-known but unjudicial dictum that Bingham J decided to accept the shipowners’ submarine theory, even though he regarded it, for seven cogent reasons, as extremely improbable.

In my view there are three reasons why it is inappropriate to apply the dictum of Mr Sherlock Holmes, to which I have just referred, to the process of fact-finding which a judge of first instance has to perform at the conclusion of a case of the kind here concerned.

The first reason is one which I have already sought to emphasise as being of great importance, namely, that the judge is not bound always to make a finding one way or the other with regard to the facts averred by the parties. He has open to him the third alternative of saying that the party on whom the burden of proof lies in relation to any averment made by him has failed to discharge that burden. No judge likes to decide cases on burden of proof if he can legitimately avoid having to do so. There are cases, however, in which, owing to the unsatisfactory state of the evidence or otherwise, deciding on

the burden of proof is the only just course for him to take.

The second reason is that the dictum can only apply when all relevant facts are known, so that all possible explanations, except a single extremely improbable one, can properly be eliminated. That state of affairs does not exist in the present case: to take but one example, the ship sank in such deep water that a diver's examination of the nature of the aperture, which might well have thrown light on its cause, could not be carried out.

The third reason is that the legal concept of proof of a case on a balance of probabilities must be applied with common sense. It requires a judge of first instance, before he finds that a particular event occurred, to be satisfied on the evidence that it is more likely to have occurred than not. If such a judge concludes, on a whole series of cogent grounds, that the occurrence of an event is extremely improbable, a finding by him that it is nevertheless more likely to have occurred than not, does not accord with common sense. This is especially so when it is open to the judge to say simply that the evidence leaves him in doubt whether the event occurred or not, and that the party on whom the burden of proving that the event occurred lies has therefore failed to discharge such burden.

In my opinion Bingham J adopted an erroneous approach to this case by regarding himself as compelled to choose between two theories, both of which he regarded as extremely improbable, or one of which he regarded as extremely improbable and the other of which he regarded as virtually impossible. He should have borne in mind, and considered carefully in his judgment, the third alternative which was open to him, namely, that the evidence left him in doubt as to the cause of the aperture in the ship's hull, and that, in these circumstances, the shipowners had failed to discharge the burden of proof which was on them."

18. Thomas LJ made the following observations about *The Popi M* in *Ide v. ATB Sales Ltd, Lexus Financial Services t/a Toyota Financial Services (UK) plc v Russell* [2008] EWCA Civ 424:

"4. The circumstances of the case were, as Bingham J pointed out in his judgment, novel and striking. Some of the features were particular to a proof of loss by perils of the sea under a policy of marine insurance *The Popi M* was a very unusual case and . . . the difficulties identified in that case will not normally arise. In the vast majority of cases where the judge has before him the issue of causation of a particular event, the parties will put before the judges two or more competing explanations as to how the event occurred, which though they may be uncommon, are not improbable. In such cases, it is . . . a permissible and logical train of reasoning for a judge, having eliminated all of the causes of the loss but one, to ask himself whether, on the balance of probabilities, that one cause was the cause of the event. What is impermissible is for a judge to conclude in the case of a series of improbable causes that the least improbable or least unlikely is nonetheless the cause of the event: such cases are those

where there may be very real uncertainty about the relevant factual background (as where a vessel was at the bottom of the sea) or the evidence might be highly unsatisfactory. In that type of case the process of elimination can result in arriving at the least improbable cause and not the probable cause.

5. In *Datec Electronic Holdings v UPS* [\[2007\] UKHL 23](#) ([\[2007\] 1 WLR 1325](#), [\[2005\] EWCA Civ 1418](#)) one of the issues was whether the claimants had discharged the burden of establishing on a balance of probabilities that the loss of packages was caused by theft by an employee of UPS. As Richards LJ stated in his judgment at paragraph 67, there was sufficient evidence in that case and the surrounding circumstances to enable the court to engage in an informed analysis of the possible causes of the loss and to reach a reasoned conclusion as to the probable cause. He considered all of the possible causes and concluded that theft by employees was the probable cause of the loss. He concluded at paragraph 83:

"Nor do I see any inconsistency between my approach and the observations of Lord Brandon in *The Popi M*. The conclusion that employee theft was the probable cause of the loss is not based on a process of elimination of the impossible, in application of the dictum of Sherlock Holmes. It does take into consideration the relative probabilities or improbabilities of various possible causes as part of the overall process of reasoning, but I do not read *The Popi M* as precluding such a course. Employee theft is, as I have said, a plausible explanation and is very far from being an extremely improbable event. A finding that employee theft is more likely than not to have been the cause of the loss accords perfectly well with common sense. Thus the various objections to the finding made by the trial judge in *The Popi M* simply do not bite on the facts of this case."

On appeal, the approach of Richards LJ was criticised by counsel for UPS on the basis that he had been lured into a process of elimination (which could at best arrive at a conclusion as to which of many possible causes was the least unlikely) rather than a conclusion as to any cause which was more probable than all the others viewed together. In giving the only substantive opinion on this issue, Lord Mance rejected that criticism, though pointing out at paragraph 50 that:

"Inevitably, any systematic consideration of the possibilities is subject to a risk that it may become a process of elimination leading to no more than a conclusion regarding the least unlikely cause of loss."

As a matter of common sense it will usually be safe for a judge to conclude, where there are two competing theories before him neither of which is improbable, that having rejected one it is logical to accept the other as being the cause on the balance of probabilities. It was accepted in the course of argument on behalf of the appellant that, as a matter of principle, if there were only three possible causes of an event, then it was permissible for a judge to approach the matter by

analysing each of those causes. If he ranked those causes in terms of probability and concluded that one was more probable than the others, then, provided those were the only three possible causes, he was entitled to conclude that the one he considered most probable, was the probable cause of the event provided it was not improbable.”

19. The following passage appears in Walker and Walker: “... an onus will not be satisfied by leading evidence which is more probable than that led by the opponent, but nevertheless improbable in itself. The court must be satisfied of the probability, inherent and relative, of what is led in evidence by the party who carries the onus of proof on that issue.” (Walker & Walker, *The Law of Evidence in Scotland*, third edition, paragraph 4.2.1).

20. The following propositions can be drawn from these authorities:-

20.1. The Court must be satisfied that a particular proposed cause really is more likely than not to be the cause. It is not enough if all that has been done is to establish that a particular proposed cause is the least unlikely cause.

20.2. The Court should always keep in mind that it has the option of holding that the cause has simply not been proved. In a case such as the present that is a live option.

20.3. The Court cannot logically hold both that a proposed explanation is improbable and that it is also the probable cause.

21. The question of whether or not a particular cause is or is not improbable is not, however, a conclusion which should be drawn in the abstract, but should be addressed in the context of the evidence in the particular case. As Mr Mortimore observed “Rare events happen”³⁵⁰⁹. Accordingly, a particular event may, considering the matter in advance, be very unlikely to occur. But after the event it may, nevertheless, be possible to conclude that this unusual event has in fact occurred. As Dr Vince observed, in the present case, “we know, of course, that the fire occurred, so

³⁵⁰⁹ Stuart Mortimore, 16 March 2010, am, p. 113.

something ... a priori quite unlikely has occurred”³⁵¹⁰. It does not follow that, just because all of the possibilities would a priori have been judged to be unlikely, one cannot draw conclusions, on the basis of an assessment of the evidence which does exist, as to what did in fact, on the balance of probabilities, occur.

22. It would be wrong to interpret and apply *The Popi M* in such a way that, as soon as one of the adminicles in a circumstantial case indicates that the proposed event is unlikely (even very unlikely), that explanation is ruled out of court, irrespective of the strength of the inferences which fall to be drawn from the other circumstances. That would be inconsistent with the nature of a circumstantial case, which involves balancing the inferences to be drawn from all the relevant circumstances. It may be noted that in *The Popi M*, there would appear to have been no positive evidence in favour of the submarine hypothesis at all: see Bingham J’s opinion at [1983] 2 Ll Rep. 235.

23. In the present case, if one were to consider the HSL experimental work on its own, one would conclude that ignition by way of a spark generated at an earth fault at cable V (or, indeed, by one of the other recognized potential mechanisms of ignition attributable to insulation failure)³⁵¹¹ was very unlikely indeed. Ignition by a spark generated by such a fault would require either ignition of a solid material – something which was not achieved in the experimental work and which, for reasons apparent from the HSL report and Dr Jagger’s evidence, may be regarded as a very remote possibility – or a release of an aerosol or liquid – something which can happen but which would be an extremely rare event.

24. I agree with the submission for the Crown that the following propositions, if accepted by me, would entitle me to conclude, nevertheless, that this was indeed the cause of this fire:

24.1. There was arcing at the cable V knockout.

³⁵¹⁰ Ivan Vince, 11 August 2010, am, p. 34.

³⁵¹¹ Chapter 11, paras. 9-10.

24.2. The arcing at the cable V knockout preceded the fire but occurred after the last use of the washing machines.

24.3. Arcing is a recognized potential source of ignition.

24.4. A fire in fact occurred in the vicinity of the distribution board.

If I accept those propositions, I consider I am entitled to take the view, in a situation where there was undoubtedly combustible material available, but it cannot be known precisely what fuel was ignited and how it came to be ignited, that some very unlikely concatenation of circumstances such as to cause ignition did occur. Otherwise I would be driven to accept the extraordinary coincidence that an event which it is known can cause fire (namely arcing) occurred shortly before a fire which did in fact occur in the vicinity of the arcing event, but that nevertheless some other unknown event for which there is no evidence was in fact the cause of the fire.

Mechanisms involving human action

25. I am satisfied that a mechanism involving human action, whether deliberate or negligent, can be excluded for the following reasons:-

25.1. It may be concluded that at all relevant times the cupboard doors were in the positions shown in Photograph 16 of Pro 1454 – i.e. with the left door closed and the right door slightly ajar. If that is correct, it is extremely difficult, if not impossible, to see how a source of ignition could have been deposited by human action at the location behind the left hand door where the fire started.

25.2. Yvonne Carlyle passed along the corridor near the cupboard at a point in time very close to the time of ignition. She did not report seeing anything out of the ordinary. The locations of the various members of staff were accounted for at the relevant time.

25.3. There is no evidence of any intruder being in the building during the night and there is no evidence of deliberate fire-raising.

25.4. None of the staff smoked anywhere outside certain specified areas. The residents who smoked were all accounted for. Standing Yvonne Carlyle's evidence, one may exclude some unknown activity by one of the "wanderers".

The cupboard doors.

26. On the basis of forensic evidence, it may be concluded that when the fire started, the southern door of the cupboard was closed and secured and the northern door was slightly ajar³⁵¹². At the start of the fire the position of the doors was (derived from the forensic evidence) as shown in Photograph 16 (p. 140) of Pro 1454.

27. It can properly be concluded that the cupboard doors had been in this position since about midnight. This conclusion is drawn on the basis of the following evidence.

27.1. At about midnight Yvonne Carlyle went to the cupboard to retrieve some white roll. The right hand door was ajar – "just slightly opened". Ms Carlyle put her hand in and took out some white roll. She left the door ajar³⁵¹³.

27.2. There is a striking correlation between Ms Carlyle's description of the state of the doors as she left them and the state of the doors as they were at the start of the fire,

27.3. Each of the four members of staff on duty that night was asked about the cupboard and, on the basis of their evidence, the last occasion on that night when a member of staff went into the cupboard was that spoken to by Ms Carlyle and mentioned above.

28. If that conclusion is properly drawn, it may be regarded as an important adminicle of evidence supporting the proposition that the fire (which started low

³⁵¹² See Chapter 30 (formerly Chapter 25), paragraph 9.

³⁵¹³ Yvonne Carlyle, 27 November 2009, am, pp. 126-131

down behind the left hand door, which was on this hypothesis closed) was electrical in origin.

28.1. For reasons already outlined, ignition occurred at or about 04.25 am. Although a fire may smoulder prior to ignition for some considerable time³⁵¹⁴, in the circumstances pertaining within cupboard A2 (and in particular because of the presence of the smoke detector in the ceiling of the cupboard) it is unlikely that there could have been a smouldering fire for any significant length of time without activating the smoke detector within the cupboard³⁵¹⁵.

28.2. The fire started low down on the southern side of the cupboard – i.e. behind the secured lefthand door of the cupboard³⁵¹⁶. If it is correct to conclude that the lefthand door was indeed secured when ignition occurred, in order for the ignition to have been introduced by human intervention one has to postulate the source of ignition (e.g. discarded smokers' materials) being introduced into the bottom lefthand corner of the cupboard³⁵¹⁷. This would have involved someone discarding such an object from the centre of the cupboard to the left hand side behind the left hand door³⁵¹⁸. With the righthand door in the position shown in Photograph 16 of Pro 1454 it is very difficult if not impossible to envisage how this could have occurred.

Yvonne Carlyle's evidence

29. That conclusion is further reinforced by other evidence, in particular the evidence of Yvonne Carlyle. For reasons already outlined, it may be concluded that ignition occurred at or about 04.25 am³⁵¹⁹. At or around the time of ignition (perhaps very shortly before), Yvonne Carlyle went to the sluice directly opposite the cupboard. She did not report seeing or smelling anything out of the ordinary in the corridor at that time.

³⁵¹⁴ Stuart Jagger, 22 March 2010, am, pp. 53-62.

³⁵¹⁵ Chapter 32 (formerly 27), paras. 4-5.

³⁵¹⁶ See generally Chapter 30 (formerly Chapter 25).

³⁵¹⁷ James Lygate, 10 August 2010, pm, pp. 3-4.

³⁵¹⁸ James Lygate, 10 August 2010, pm, p. 4.

³⁵¹⁹ Chapter 38 (formerly 33) above.

30. The other members of staff on duty that night are all accounted for at the relevant time. Brian Norton was attending to Mrs McAlinden in the Rose Room. Isobel Queen and Irene Richmond were downstairs attending to Nana Murphy.

No evidence of any intruder

31. There is no evidence of any intruder having been in the building during the night. The doors at the main entrance and the fire exit doors (which were the only doors into the building) were always kept locked³⁵²⁰.

No evidence of deliberate fire-raising

32. No evidence of any accelerant was found³⁵²¹.

Smoking

33. The absence of physical evidence of smokers' materials in the cupboard does not exclude this as a potential cause. If a fire is started by a cigarette or match, the cigarette or match will have been destroyed by the fire³⁵²².

34. I conclude, on the basis of the evidence set out further below, that no one who smoked or who had access to smoking materials smoked in the area of the cupboard during the relevant timeframe.

35. The initial ignition was at or about 04.25 am³⁵²³. At about this time Yvonne Carlyle went to the sluice directly opposite cupboard A2. She saw and smelled nothing out of the ordinary. She herself did not smoke in the vicinity of the cupboard that night³⁵²⁴.

³⁵²⁰ Eleanor Ward, 24 November 2009, pm, pp. 1-4

³⁵²¹ David Robertson.

³⁵²² Stuart Mortimore, 16 March 2010, am, p. 116.

³⁵²³ See Chapter 38 (formerly Chapter 33).

³⁵²⁴ See paragraph 26.b. below.

36. Even if one were to allow a longer potential timescale from ignition to alarm, I conclude, on the basis of the evidence described in the following paragraphs, that no one who smoked or who had access to smoking materials smoked in the area of the cupboard. Dr Lygate expressed the view that, if the fire was caused by discarded smokers' materials, this would have occurred some time between 3.30 am and 4.28 am (i.e. within the hour before the alarm sounded)³⁵²⁵.

Staff

37. None of the staff on duty on the nightshift smoked in the vicinity of the cupboard during the night.

a. Brian Norton had a cigarette downstairs before starting his shift, and otherwise smoked in the residents' smoking room³⁵²⁶. Yvonne Carlyle did not see him smoking anywhere apart from the residents' smoking room³⁵²⁷. When asked if he had smoked in any other part of the building he said that he had not³⁵²⁸.

b. Yvonne Carlyle had a cigarette before she started work in the staff smoking area downstairs. During the course of the night, she smoked in the smoking room off the Rose Lounge. After the fire she had a cigarette outside the kitchen door. She did not smoke anywhere else in the building that night³⁵²⁹.

c. Isobel Queen was a social smoker but never smoked at work³⁵³⁰.

d. Irene Richmond did not smoke³⁵³¹.

38. Standing the evidence of each of Mr Norton and Ms. Carlyle that they did not smoke in any part of the building other than the specific areas identified in their

³⁵²⁵ James Lygate, 10 August 2010, pm, p. 6.

³⁵²⁶ Brian Norton, 26 November 2009, am, pp. 85-86, 92-93

³⁵²⁷ Yvonne Carlyle, 27 November 2009, pm, p. 12.

³⁵²⁸ Brian Norton, 26 November 2009, am, p. 100.

³⁵²⁹ Yvonne Carlyle, 27 March 2009, pm, pp. 11-12.

³⁵³⁰ Isobel Queen, 2 December 2009, pm, p. 82.

³⁵³¹ Irene Richmond, 1 December 2009, am, p. 51.

evidence, I am not prepared to conclude that the discard of smoking materials by a member of staff was responsible for this fire. In effect, that evidence excludes the discard of smoking materials by staff as a potential source of ignition.

39. In any event, the reaction of staff to the fire alarm – as seen on the CCTV footage - tends to support the view that none of them had knowingly done anything which was liable to start a fire³⁵³².

Residents who smoked

40. Only three residents smoked. These were Tom Wallace, Stevie Fanning and Jim Daly³⁵³³.

41. Their rooms were all on the lower floor: Tom Wallace in room 31; Stevie Fanning in room 33; and Jim Daly in room 26³⁵³⁴. Room 26 was next to Nana Murphy's room; room 31 was opposite that room. Room 33 was just round the corner³⁵³⁵.

42. I am not prepared to conclude that any of the residents were out of their bedrooms during the night.

a. All of them were in their rooms when Mr Norton and Ms Carlyle evacuated the residents from the lower floor³⁵³⁶.

b. Statements were taken from each of Mr Fanning³⁵³⁷ and Mr Wallace³⁵³⁸ after the fire. Each of them refers to going to bed, and to being woken up by staff. Neither statement contains any indication that either of them was up during the night.

³⁵³² Stuart Mortimore, 16 March 2010, am, pp. 128-129.

³⁵³³ Allison Cumming, 19 November 2009, pm, pp. 30-31; Sadie Meaney, 19 February 2010, pm, pp. 84-85.

³⁵³⁴ Pro 562; Allison Cumming, 19 November 2009, pm, pp. 31-33; Phyllis West, 23 November 2009, am, pp. 25-26; Yvonne Carlyle, 27 November 2009, am, p. 47.

³⁵³⁵ Pro 1745; Phyllis West, 23 November 2009, am, pp. 25-26.

³⁵³⁶ Yvonne Carlyle, 27 November 2009, am, p. 106.

³⁵³⁷ Thomas O'Brian, 1 April 2010, pm, pp. 41-48.

³⁵³⁸ Mark Kane, 1 April 2010, pm, pp. 50-

c. Each of these three men could mobilise only with a walking aid, and would have needed to take the lift to go upstairs³⁵³⁹. Mr Wallace could mobilize with a walking stick, but would take 5-10 minutes to go upstairs from his room³⁵⁴⁰. Staff were in and around Nana Murphy's room for a period of time before the fire started and did not speak to any of these residents being up or out of his room.

d. Of the three, only Mr Wallace was allowed to keep his own cigarettes and lighter³⁵⁴¹. Cigarettes were kept for Mr Daly and Mr Fanning in the office³⁵⁴². Although Mr Fanning had on at least one occasion some time before the fire been given cigarettes and a lighter by a visitor, these would be taken away from him by staff³⁵⁴³. There was no evidence that Mr Fanning in fact had cigarettes and a lighter on the night of the fire.

“Wanderers”

43. Most of the residents were very immobile. A small number were “wanderers”, in other words residents who might get out of bed at night. The only “wanderer” who was seen out of his or her room on the night of the fire was Mrs MacLachlan. She was not a smoker. There is no evidence that she could have had access to anything which would be a source of ignition. If it is correct that the cupboard doors had not moved from the time that Yvonne Carlyle left the righthand door ajar until the fire broke out, one may exclude her going into the cupboard. She was in any event taken back to her room some time before ignition and, following the fire, was rescued from her bedroom.

³⁵³⁹ Allison Cumming, 19 November 2009, pm, pp. 33-35. On the night of 30 January 2004, Yvonne Carlyle took Mr Daly from the dayroom to his bedroom using a wheelchair: 27 November 2009, am, pp. 46-47, 50.

³⁵⁴⁰ Sadie Meaney, 19 February 2010, pm, pp. 86-87.

³⁵⁴¹ Sadie Meaney, 19 February 2010, pm, pp. 85-86; Mark Kane, 1 April 2010, pm, pp. 58-59.

³⁵⁴² Allison Cumming, 19 November 2009, pm, pp. 35-36.

³⁵⁴³ Allison Cumming, 19 November 2009, pm, p. 36; Irene Richmond, 1 December 2009, am, pp. 54-56.

44. I accordingly reach the conclusion that Dr Lygate's approach to this fire falls to be rejected.

Possible mechanisms involving the electrical installation

45. The location of the fire relative to the electrical distribution board makes the electrical distribution board a suspect as the source of ignition. Electrical equipment can, for reasons already explained³⁵⁴⁴ be a source of ignition. The fire started just below that equipment. There is no other known potential source of ignition in that general location.

46. The state of the electrical installation following the fire³⁵⁴⁵ disclosed five potential sources of ignition³⁵⁴⁶.

- a. The Merlin Gerin circuit breaker;
- b. The apparent overheating of cable V;
- c. The arcing at the upper busbar
- d. The arcing at the cable V knockout; and
- e. The Residual Current Devices (RCDs).

47. All of these – apart from the fourth (i.e. arcing at the cable V knockout) – can be positively excluded for reasons detailed below³⁵⁴⁷.

48. Certain other components were also examined and positively excluded as follows:-

³⁵⁴⁴ Chapter 10, paragraphs 8 to 10.

³⁵⁴⁵ The state of the electrical installation following the fire is described in Chapter 11, paras. 40 to 51.

³⁵⁴⁶ John Madden, 29 March 2010, am, pp. 63-72.

³⁵⁴⁷ Paras. 38 to 41.

- a. *The main power cable to the distribution board.* The main power cable to the distribution board in cupboard A2 was tested and found to be in satisfactory condition (other than inside the distribution board itself). The possibility that the fire was caused by a problem with this cable can therefore be excluded³⁵⁴⁸.
- b. *The ventilation controller.* The patterns of damage exhibited by the ventilation controller were consistent with the effects of an external attack by fire. There were no visible signs of an incendive electrical fault involving that controller³⁵⁴⁹.
- c. *The spur unit.* The spur unit had been charred but its interior was relatively undamaged. This was consistent with the effects of an external attack by fire. Had the fire started inside the unit one would have expected to see more fire damage inside than outside³⁵⁵⁰.
- d. *Loose or poorly made connections.* None of the connections within the distribution board was loose. Overheating on these conditions can accordingly be discounted as a potential cause of the fire³⁵⁵¹. In any event, as shown in the HSL work, the internal components of the distribution board did not support combustion³⁵⁵².

Exclusion of the Merlin Gerin circuit breaker as a potential source of ignition

49. The Merlin Gerin MCB can be positively excluded as a potential source of ignition³⁵⁵³:

- a. The MCB was examined radiographically. This disclosed that the breaker was in the open position and that there were no obvious signs of damage to the metallic components internal to the MCB³⁵⁵⁴.

³⁵⁴⁸ Stuart Mortimore, 11 March 2010, pm, pp. 1-3.

³⁵⁴⁹ Stuart Mortimore, 11 March 2010, pm, p. 86.

³⁵⁵⁰ Stuart Mortimore, 11 March 2010, pm, p. 90.

³⁵⁵¹ John Madden, 31 March 2010, am, pp. 59-60.

³⁵⁵² John Madden, 31 March 2010, am, p. 62.

³⁵⁵³ John Madden, 29 March 2010, am, p. 129

³⁵⁵⁴ Stuart Mortimore, 11 March 2010, am, pp. 121-125. Pro 933 is a radiograph of this MCB.

- b. This was confirmed by computer aided tomography which allowed 3-D imaging³⁵⁵⁵. Although this work did not show any signs of an internal fault, it was considered prudent to undertake an internal examination.
- c. On 15 March 2004 Stuart Mortimore opened up the circuit breaker³⁵⁵⁶. These investigations disclosed that the MCB had no internal fault or defect³⁵⁵⁷. There was no evidence of any heating effects at any location where the current flowed through the breaker or of any internal arcing activity which would have caused concern³⁵⁵⁸.
- d. The use of a Merlin Gerin circuit breaker within a MEM distribution board presents the possibility that the contact area between the circuit breaker and the busbar was too low for the current being carried, creating conditions for high temperature to be generated at the point of connection. However, in the reconstructed distribution boards used in the HSL work, the electrical resistance at the terminals was sufficiently low not to cause overheating. In any event, as shown in the HSL work, the internal components of the distribution board would not support combustion. This mechanism can therefore be discounted³⁵⁵⁹.
50. The damage sustained by this MCB as compared with the other MCBs³⁵⁶⁰ may readily be explained by the fact that they were made of different types of plastics, with different properties³⁵⁶¹. In the glow-wire tests undertaken by HSL, the response of the two types of MCB was markedly different. In short, in these tests, a MEM MCB ignited at a higher temperature than a Merlin Gerin MCB and the fire went out more quickly³⁵⁶².

³⁵⁵⁵ John Madden, 29 March 2010, am, pp. 126-128; pm, pp. 1-2 under reference to Label 1504.

³⁵⁵⁶ Stuart Mortimore, 15 March 2010, am, pp. 16-18. Photograph 54 (p. 178) of Pro 1454 is a photograph of the internal mechanism of the MCB after it had been opened up.

³⁵⁵⁷ Stuart Mortimore, 11 March 2010, am, pp. 89, 92-93, 15 March 2010, am, pp. 21-24.

³⁵⁵⁸ Stuart Mortimore,

³⁵⁵⁹ John Madden, 31 March 2010, am, pp. 60-62.

³⁵⁶⁰ See Chapter 11, paragraph 43.

³⁵⁶¹ Stuart Mortimore, 11 March 2010, pm, p. 79, 15 March 2010, am, pp. 41, 58; Stuart Jagger, 19 March 2010, am, pp. 4-6

³⁵⁶² Stuart Mortimore, 15 March 2010, am, pp. 50-51.

Merlin Gerin MCB

i. At temperatures between 556 degrees and 674 degrees Centigrade, the component melted and the wire penetrated into its body; at about 767 degrees, the plastic caught fire and flamed for about 10 seconds but there were no drips; the flame was not self-propagating³⁵⁶³.

MEM MCB

ii. At about 754 degrees Centigrade, the switch lever flamed immediately but the MCB body showed little penetration up to 967 degrees Centigrade, there was little smoke, no charring and no ignition³⁵⁶⁴.

Furthermore, a flame impingement test undertaken by HSL, in which a MEM and Merlin Gerin MCB, mounted side by side, were subjected to flame, produced a pattern of damage similar to that exhibited by the circuit breakers within positions 9 and 10 of the lower row of the incident distribution board³⁵⁶⁵.

51. Although there was no evidence of any internal fault or defect in the MCB, there was fairly severe pitting to the surface of the contacts internal to the Merlin Gerin MCB. This can be seen in Photograph 55 (p. 179) of Pro 1454 and Pro 936Z. The damage to the surface of the contacts was consistent with electrical arcing activity and indicated that the circuit breaker had, at some time, tripped under duress – i.e. to break a large current, such as would be generated in the event of a short circuit³⁵⁶⁶. One would expect the MCB to have responded in this way in the event of a short circuit at the point where cable V passed through the knockout. The likely explanation for the pitting observed was the arcing activity which had occurred at cable V where it passed through the knockout³⁵⁶⁷.

³⁵⁶³ Stuart Jagger, 19 March 2010, am, pp. 17-18

³⁵⁶⁴ Stuart Jagger, 19 March 2010, am, pp. 18-19.

³⁵⁶⁵ Stuart Mortimore, 15 March 2010, am, pp. 55-57; Stuart Jagger, 19 March 2010, am, pp. 24-29.

³⁵⁶⁶ Stuart Mortimore, 11 March 2010, am, pp. 92-94, 15 March 2010, am, pp. 24-29.

³⁵⁶⁷ Stuart Mortimore, 15 March 2010, am, pp. 28-30; 16 March 2010, am, pp. 62-63.

Exclusion of overheating of cable V as source of ignition

52. Although no satisfactory explanation could be identified for the melting of the bitumen felt which was lying on top of cable V in the loftspace³⁵⁶⁸, overloading of cable V can be positively excluded as a source of ignition³⁵⁶⁹.

- a. There were no internal defects or electrical discontinuities in cable V³⁵⁷⁰.
- b. During the normal operation of washing machines, cable V would never reach a temperature at which it might be thermally damaged³⁵⁷¹.
 - i. The cable was rated to operate continuously at 70 degrees Centigrade³⁵⁷². In tests undertaken at the Health and Safety Laboratory, the cable only melted and began to smoke at about 190 degrees Centigrade³⁵⁷³.
 - ii. The maximum current which would be drawn through cable V by the washing machines in the condition in which they existed at the time of the fire (i.e. with one heating element of the Minett not working) was 31.1 amps.
 - iii. The maximum current which would be drawn through cable V by the washing machines (in circumstances where both heating elements of the Minett were working) was 40.6 amps.
 - iv. Apart from the open circuit on one of the heating elements, there was no other fault in the Minett which would have affected the current drawn through cable V³⁵⁷⁴. There was no defect or fault in the 903 which would

³⁵⁶⁸ John Madden, 29 March 2010, pm, pp. 74-79; for this, see Chapter 11, paragraph 51.

³⁵⁶⁹ John Madden, 29 March 2010, pm, pp. 75-76, 30 March 2010, pm, pp. 64-68; see also Stuart Mortimore, 11 March 2010, pm, pp. 36-37.

³⁵⁷⁰ John Madden, 29 March 2010, am, pp. 111-112, pm, pp. 53.

³⁵⁷¹ John Madden, 29 March 2010, am, pp. 60-62.

³⁵⁷² John Madden, 29 March 2010, pm, p. 62.

³⁵⁷³ John Madden, 29 March 2010, pm, p. 65.

³⁵⁷⁴ John Madden, 29 March 2010, pm, pp. 51-52.

have affected the current drawn through cable V³⁵⁷⁵. There were no defects in the wall mounted switches in the laundry³⁵⁷⁶.

v. When current at 31 amps was drawn through cable V, the temperature in the cable rose with time, until, after about 50 minutes, it reached a steady state of about 53 degrees Centigrade³⁵⁷⁷. In the ordinary operation of the washing machines, there would never be a period when the heating elements of both machines would be on for a period of 50 minutes³⁵⁷⁸.

vi. When current at 40 amps was drawn through cable V, the temperature in the cable rose with time until, after about 46 minutes it reached 67 degrees³⁵⁷⁹. 46 minutes was longer than any period during which the heating elements of both machines would be likely to be on at the same time³⁵⁸⁰.

vii. Only when current at 60 amps was being drawn through cable V would it begin to soften and flow. Only with 80 amps being drawn through the cable did the cable reach a point when it was melting and beginning to smoke³⁵⁸¹. These currents exceeded by a considerable margin any current that would in fact have been drawn through the cable under normal operational conditions³⁵⁸².

viii. The tests in which these findings were established were undertaken in a laboratory with an ambient temperature of between 23.5 and 26 degrees³⁵⁸³. In the context of a loftspace, where the ambient temperatures on a hot day could be higher, there might be circumstances when the temperature of the cable might exceed 70 degrees Centigrade, but only for

³⁵⁷⁵ John Madden, 29 March 2010, pm, pp. 40-43

³⁵⁷⁶ John Madden, 29 March 2010, am, p. 113.

³⁵⁷⁷ John Madden, 29 March 2010, pm, pp. 55-58

³⁵⁷⁸ John Madden, 29 March 2010, pm, p. 60.

³⁵⁷⁹ John Madden, 29 March 2010, pm, pp. 63-65, 69-70.

³⁵⁸⁰ John Madden, 29 March 2010, pm, p. 70.

³⁵⁸¹ John Madden, 29 March 2010, pm, pp. 65-67.

³⁵⁸² John Madden, 29 March 2010, pm, pp. 67-68.

³⁵⁸³ John Madden, 29 March 2010, pm, p. 76.

very short durations and not to the extent that the cable would be damaged³⁵⁸⁴.

c. If the two strands of cable V which were found to be discontinuous had been cut before the fire, this would have reduced the cross-sectional area of cable V at that location, but any additional heating effect would have been insignificant³⁵⁸⁵.

Exclusion of arcing at the busbar as a potential source of ignition

53. Arcing is of significance in the context of fire investigation for two reasons: (i) arcing is a potential cause of fire; and (ii) the point at which a circuit first fails is indicated by arcing activity, and this may point to the area of fire origin even if the arcing did not cause the fire. But if one finds arcing in the context of a fire, one requires to address whether the arcing was a consequence of the fire, or a cause of the fire, or indeed whether it merely preceded or occurred after the fire³⁵⁸⁶.

54. Arcing is very prevalent in a fire environment³⁵⁸⁷. Arcing can occur as a result of a fire. If the effects of fire degrade the insulating materials between two insulated conductors which are in close proximity, arcing may occur:

- a. The conductors may come into contact with one another.
- b. Current may be conducted through the charred remains of the insulation³⁵⁸⁸.
- c. The fire itself may produce ionized gases through which arcing may occur once the insulation has been degraded³⁵⁸⁹.

³⁵⁸⁴ John Madden, 29 March 2010, pm, p. 77.

³⁵⁸⁵ John Madden, 30 March 2010, am, pp. 1-5.

³⁵⁸⁶ Stuart Mortimore, 11 March 2010, am, pp. 116-117; John Madden, 29 March 2010, am, pp. 70-71; see further Chapter 11, paras.8-10 .

³⁵⁸⁷ Stuart Jagger, 19 March 2010, am, pp. 2-3.

³⁵⁸⁸ Stuart Mortimore, 11 March 2010, am, p. 113; 16 March 2010, am, p. 32, pp. 48-49.

³⁵⁸⁹ Stuart Mortimore, 11 March 2010, am, pp. 114-115; pm, p. 15.

55. I conclude that the arcing at the busbar occurred after the fire started, and indeed may be inferred to have been caused by the fire³⁵⁹⁰. It may therefore be excluded as a potential source of ignition. The key pieces of evidence here are: (a) the conclusion which may be taken from Mrs Burns' account that she switched on her ceiling light (which would have taken its power from this busbar) after the fire started; and (b) the evidence to the effect that the extraction system was still operating after the fire started. These are discussed more fully at subparagraphs f and g below. The evidence was that the arcing seen at this busbar would have caused the mains fuse to fail, which would have discontinued any power supply to the distribution board (and thus to Mrs Burns' ceiling light and to the extraction fan): see subparagraphs d and e below. The conclusion, which falls to be drawn from that evidence, that the arcing on this busbar occurred after the fire had started (and therefore did not ignite the fire) is consistent with other considerations, set out in subparagraphs a to g below.

a. There was evidence that the plastic busbar cover was in place³⁵⁹¹. Until the plastic busbar was sufficiently degraded or damaged by fire, this would have separated the busbar from the core. There was also evidence that the earth wires had been sleeved with green and yellow sleeving³⁵⁹².

b. These layers of protection could have become compromised by the fire in such a way as to give rise to arcing³⁵⁹³, but it is difficult to see how they could have become so compromised in any other circumstances³⁵⁹⁴.

c. In experiments at the HSL, it proved difficult to reproduce this particular fault. In order to generate similar damage to that seen in the incident busbar, it was necessary to increase the amount of energy fed to the fault. The amount of damage can, however, be explained by a longer-lasting fault, such as could be explained by the circumstances of a fire³⁵⁹⁵.

³⁵⁹⁰ John Madden, 30 March 2010, pm, p. 68.

³⁵⁹¹ Stuart Mortimore, 11 March 2010, pm, pp. 77-79.

³⁵⁹² Stuart Mortimore, 11 March 2010, pm, p. 81; John Madden, 30 March 2010, pm, pp. 68-69.

³⁵⁹³ John Madden, 30 March 2010, pm, pp. 71-72.

³⁵⁹⁴ John Madden, 30 March 2010, pm, pp. 69-70.

³⁵⁹⁵ John Madden, 30 March 2010, pm, pp. 71-74.

d. Arcing of the extent observed at that location would cause the main fuse for the distribution board to blow³⁵⁹⁶. The main fuse had indeed blown³⁵⁹⁷.

e. Once that fuse broke, there would have been no supply of power to the distribution board or, consequently, to any appliance served by the board³⁵⁹⁸.

f. Mrs Burns switched on her ceiling light after she had been woken (and after she had smelled smoke). This light probably took its power from the upper busbar of the distribution board in cupboard A2. There was accordingly still power to the board at that time. It follows that the arcing at the busbar occurred after Mrs Burns switched on her ceiling light³⁵⁹⁹.

g. The fan for the ventilation system took its power from the distribution board. It may be inferred that the fan continued to operate for some time after the fire started³⁶⁰⁰.

i. Staff passed through the central stairwell after the fire alarm sounded going up and downstairs, without seeing anything untoward.

ii. It was only at about 04.36 am that staff saw smoke filling up the central stairwell from the ventilation duct³⁶⁰¹.

iii. Had the power supply to the fan failed at or about the time of ignition, it is likely that smoke would have been seen at the stairwell during the earlier journeys.

iv. It would have taken approximately 2 to 4 minutes from failure of the fan to smoke reaching the liftshaft³⁶⁰².

³⁵⁹⁶ Stuart Mortimore, 16 March 2010, am, pp. 33-34, 35; John Madden, 30 March 2010, pm, pp. 69-70.

³⁵⁹⁷ Stuart Mortimore, 16 March 2010, am, p. 35.

³⁵⁹⁸ Stuart Mortimore, 16 March 2010, am, pp. 35-36.

³⁵⁹⁹ John Madden, 30 March 2010, pm, pp. 70-71.

³⁶⁰⁰ Stuart Mortimore, 16 March 2010, am, pp. 33-39.

³⁶⁰¹ Stuart Mortimore, 17 March 2010, am, pp. 55-56.

³⁶⁰² Stuart Mortimore, 16 March 2010, am, pp. 36-37.

v. While the fan operated, smoke was drawn out of the ventilation system to the roof at a point in corridor 3.

vi. It followed that as long as the fan operated smoke from a fire in corridor 4 would not be seen in the central stairwell³⁶⁰³.

vii. There were various possible explanations for the failure of the extract fan: the fan controller could have been damaged by fire; the circuit breaker to the fan controller might have tripped in response to heat; the fan itself might have tripped in response to high heat; or the arcing to the busbar could have fused the whole distribution board. Mr Mortimore was inclined to think that the most likely explanation was the tripping of the circuit breaker serving the fan controller³⁶⁰⁴.

viii. Whatever the explanation for the fan ceasing to operate, the arcing at the busbar did not occur before then.

Exclusion of the RCDs as potential sources of ignition

56. The residual current devices did not exhibit any defects or features which would have contributed to the ignition of the fire³⁶⁰⁵.

56.1. There were no external signs of an incendive electrical fault. Specifically the terminals did not exhibit any signs of electrical arcing activity³⁶⁰⁶.

56.2. The RCDs were scanned by computer aided tomography and were also opened up so that the internal components could be examined³⁶⁰⁷. There were

³⁶⁰³ Stuart Mortimore, 16 March 2010, am, p. 37.

³⁶⁰⁴ Stuart Mortimore, 17 March 2010, am, pp. 55-59.

³⁶⁰⁵ John Madden, 30 March 2010, am, p. 44.

³⁶⁰⁶ Stuart Mortimore, 11 March 2010, pm, pp 87-88.

³⁶⁰⁷ Stuart Mortimore, 15 March 2010, am, pp. 18-19, 22; John Madden, 30 March 2010, am, pp. 42-44.

no internal signs of distress or fire and the terminals did not have any signs of arcing damage or localized overheating³⁶⁰⁸.

56.3. The upper terminal of one of the RCDs was found to be loose such that the cable came out of the terminal when the RCD was moved³⁶⁰⁹. A loose terminal can produce overheating. However, there was a furrow in some fused plastic on one of the terminal faces which suggested that a wire had in fact been present. There was no heating damage which could not be attributed to the fire.³⁶¹⁰

A fault where cable V passed through the knockout as a potential source of ignition

57. Of the potential sources of ignition disclosed by the state of the electrical installation following the fire and identified at paragraph 36 above, that leaves the question of a fault where cable V passed through the knockout. There are three possible mechanisms whereby, in principle, a fault at cable V could have resulted in ignition: (a) overheating of the cable due to loss of cross-sectional area; (b) a high resistance fault; and (c) a low resistance fault giving rise to arcing.

58. Loss of the two strands of the live conductor would not have been sufficient to cause the cable to overheat significantly by reason of the reduction in cross-sectional area³⁶¹¹.

59. If a high resistance fault had developed between cores within cable V or between cores of cable V and the edge of the distribution board, it is likely that this would have caused the insulation to degrade further and the current to increase. In these circumstances, the Merlin Gerin circuit breaker would probably have tripped before ignition³⁶¹².

60. This leaves an earth fault giving rise to arcing as the remaining candidate.

³⁶⁰⁸ Stuart Mortimore, 11 March 2010, pm, pp. 89-90.

³⁶⁰⁹ Stuart Mortimore, 11 March 2010, pm p. 88.

³⁶¹⁰ John Madden, 30 March 2010, am, pp. 51-52.

³⁶¹¹ Stuart Mortimore, 16 March 2010, am, p. 77.

³⁶¹² Stuart Mortimore, 16 March 2010, am, pp. 77-79.

Arcing at the cable V knockout as a potential source of ignition

61. Arcing at the cable V knockout could readily be explained as having occurred as a consequence of the fire³⁶¹³. However, there is a circumstantial case which supports the proposition that the arcing at the cable V knockout was the cause of the fire. The following positive adminicles of evidence (each of which will be discussed more fully in the following paragraphs), taken together, support that conclusion.

61.1. The arcing at the cable V knockout preceded the fire. This conclusion may be drawn from the following adminicles (which are further examined below):-

61.1.1. The arcing at the cable V knockout preceded the arcing at the busbar³⁶¹⁴.

61.1.2. The arcing at the cable V knockout occurred after the last time the washing machines were used³⁶¹⁵.

61.1.3. Had the distribution board been exposed to a fire from below caused by some other factor the Merlin Gerin circuit breaker would probably have tripped before arcing would have occurred at the cable V knockout³⁶¹⁶.

61.2. Two of the three layers of insulation which should have been in place to prevent just such an event occurring were missing³⁶¹⁷:-

61.2.1. There was no grommet protecting the edge of the knockout.

61.2.2. The outer cable sheath was outside the distribution board.

³⁶¹³ Stuart Jagger, 19 March 2010, am, pp. 2-3; John Madden, 30 March 2010, am, pp. 54-55.

³⁶¹⁴ Para. 63 below.

³⁶¹⁵ Para. 64 below.

³⁶¹⁶ Paras. 65-66 below.

³⁶¹⁷ Paras. 67-69 below.

61.3. In the circumstances of the distribution board, and in the absence of those two layers of insulation, it is likely that the integrity of the further layer of insulation round the live conductor would have become compromised³⁶¹⁸.

61.4. Arcing at the cable V knockout would be likely to generate sparks which could readily escape from the front and back of the distribution board and fall onto materials below the board – the very location of the fire.

62. The fuel which was initially ignited is unknown. There was a quantity of material within the cupboard which could, in the right conditions, have been ignited.

62.1. Solid flammable materials. Although it would have been extremely difficult indeed for such sparks to ignite solid flammable materials, the possibility cannot be completely excluded.

62.2. Such a spark would very readily ignite a flammable atmosphere within the cupboard and this could in turn ignite solid flammable materials. A release from one of the aerosols within the cupboard, though an extremely unlikely event could account for such a flammable atmosphere.

62.3. Solid flammable materials soaked in a flammable liquid. This would more readily be ignited than solid materials which had not been soaked in a flammable liquid. Broken pieces of a bottle of ethanol-based bodywash were found within the cupboard in a state which was consistent (though not unequivocally so) with the bottle having been broken before the fire, although it would be difficult to postulate a mechanism whereby this came to be broken in advance of the fire. Further, if there had been a release from an aerosol, this could have resulted in solid materials becoming soaked in the flammable contents of the aerosol.

³⁶¹⁸ Paras. 70-88 below.

The arcing at the cable V knockout occurred before the arcing on the busbar

63. For arcing to have occurred at the cable V knockout, cable V must have been live³⁶¹⁹. Once the arc at the busbar occurred, power to the distribution board would have been lost. cable V would no longer have been live and no arcing could have occurred at the cable V knockout³⁶²⁰. It follows that the arcing at the cable V knockout occurred before the arcing on the busbar³⁶²¹.

The arcing at the cable V knockout occurred after the last time the washing machines were in use

64. It is unlikely that the arcing at the cable V knockout occurred before the last time when the washing machines were working³⁶²². The washing machines were working during the backshift on 30 January³⁶²³. It follows that the arcing at the cable V knockout occurred sometime between that time and the arcing at the busbar.

It is likely that exposure to the fire in cupboard A2 would have caused the Merlin Gerin circuit breaker to trip before it would have caused arcing at the cable V knockout

65. According to Mr Mortimore, hot gases generated by a fire low down on the south side of cupboard A2 would go approximately vertically up the southern wall of the cupboard. On striking the base of the distribution board, they would be deflected preferentially up the front and sides of the board rather than up the back of the board. There would be relatively little passage of flame or heat up the back of the board³⁶²⁴. That this was indeed the case is supported by the relative lack of charring to the backboard behind the distribution board, and the survival of paint on the back of the

³⁶¹⁹ Stuart Mortimore, 16 March 2010, am, pp. 39-41.

³⁶²⁰ Stuart Mortimore, 16 March 2010, am, pp. 39-41.

³⁶²¹ Stuart Mortimore, 16 March 2010, am, pp. 39-41.

³⁶²² Stuart Mortimore, 16 March 2010, am, pp. 40-41, 67-69.

³⁶²³ Tracey Farrer, 24 November 2009, am, p. 138.

³⁶²⁴ Stuart Mortimore, 16 March 2010, am, pp. 43-44, pm, pp. 41-44, 18 March 2010, pm, pp. 37-41.

distribution board itself³⁶²⁵. Any heat attack on the board would be likely to be from the front towards the back³⁶²⁶.

66. The precise temperature at which the MCB would trip would depend on its design, but would, according to Mr Mortimore, be much less than the temperatures typically attained in a fire³⁶²⁷.

a. Furthermore:-

i. One would expect the lower row of circuit breakers to operate in response to heat before the upper row of circuit breakers responded³⁶²⁸.

ii. One would expect such a fire to cause arcing at the busbar (which was to the front of the board) before it caused arcing at the cable V knockout³⁶²⁹.

iii. One would expect such a fire to cause the Merlin Gerin circuit breaker (which was in the lower part of the board) to trip in response to the heat of the fire before the heat at the cable V knockout would be sufficient to cause arcing at that point³⁶³⁰.

b. Mr Mortimore expressed opinions to these effects on the basis of his experience and expertise. He was, of the experts who gave evidence, uniquely qualified to bring to bear both electrical engineering and fire investigation expertise. Dr, Lygate acknowledged that in relation to the question of whether the circuit breaker would be likely to trip before arcing at the cable V knockout (or vice versa), one would need to ask someone who has both electrical engineering experience and knowledge of fire science³⁶³¹.

³⁶²⁵ Stuart Mortimore, 18 March 2010, pm, p. 40.

³⁶²⁶ Stuart Mortimore, 16 March 2010, am, pp. 43-44.

³⁶²⁷ Stuart Mortimore, 11 March 2010, pm, pp. 76-77.

³⁶²⁸ Stuart Mortimore, 18 March 2010, pm, p. 41.

³⁶²⁹ Stuart Mortimore, 16 March 2010, am, pp. 44, 58-59.

³⁶³⁰ Stuart Mortimore, 16 March 2010, am, pp. 61-62.

³⁶³¹ James Lygate, 10 August 2010, pm, pp. 38-39.

c. There is evidence that, during the fire at Rosepark, the upper row of circuit breakers did indeed respond only at a relatively late stage in the fire. Mrs Burns' account was to the effect that she switched on her ceiling light³⁶³² (which would have been served from the upper row of circuit breakers). If one were to take the view that Mrs Burns' bedside light had ceased to work by reason of the circuit breaker tripping in response to the fire, then this would indicate that the circuit breakers on the lower busbar did indeed trip before the circuits fed from the upper busbar were de-energised whether by reason of the arcing at the upper busbar, or by reason of the circuit breakers on that busbar tripping³⁶³³. The cable V knockout was above the upper row of circuit breakers.

d. Mr Mortimore's opinion that the Merlin Gerin circuit breaker would be likely to trip before the fire would cause arcing at the cable V knockout finds some support from the HSL cupboard test. In this test, the fire was terminated using fire extinguishers after it had been burning for approximately 20 minutes and, on examination, the test cupboard looked similar to the cupboard at Rosepark following the incident. The circuit breakers failed at about 18 minutes³⁶³⁴, but there was no sign of electrical arcing activity on any of the cables at the back of the distribution board³⁶³⁵. Although the timescales of this test were very elongated compared with those of the BRE test (and, on the basis of the BRE test, the likely duration of the fire at Rosepark itself), this evidence provides some support for the proposition that the circuit breakers would trip before arcing would occur at the knockout.

e. There was no evidence of arcing involving any other cables at the cable V knockout. Although the effects on other cables would depend on the way that the sheathing and insulation had been cut back on those cables, if the heat of the fire at the cable V knockout had been sufficient to cause arcing at cable V (in advance of the whole distribution board being fused by the arcing at the busbar)

³⁶³² Chapter 36 (formerly Chapter 31), paragraph 1.5.

³⁶³³ James Lygate, 10 August 2010, pm, p. 33.

³⁶³⁴ Stuart Jagger, 19 March 2010, am, pp. 82-3

³⁶³⁵ Stuart Mortimore, 16 March 2010, pm, p. 44.

one might, according to Mr Mortimore, have expected more than one cable at that location to have been affected by arcing³⁶³⁶.

f. Mr Mortimore regarded these considerations as the determinative factors. He stated that he could not sensibly explain the arcing activity at the cable V knockout in terms of an external fire caused by human intervention³⁶³⁷. He regarded this consideration as sufficiently compelling to reject the hypothesis that the fire could be attributed to careless discard of smoking materials or some unknown action by a “wandering” resident³⁶³⁸.

Absence of protective insulation

67. There should have been three layers of insulation between the live conductor of cable V and the steelwork at the back of the distribution board. The live core should have had a layer of red insulation. That should have been enclosed in the outer grey sheath, to protect the inner core at the location of the knockout. And there should have been a grommet around the edge of the knockout itself to protect the cables from the sharp metal³⁶³⁹. If an arcing event took place at this location before the fire each of these layers must have been absent or compromised in some way³⁶⁴⁰.

68. Two of these layers of protective insulation were not in place.

a. There was no grommet on the cable V knockout³⁶⁴¹.

b. The edge of the outer sheath was outside the distribution board, so that it did not protect the inner cores of the cable³⁶⁴². In particular I refer to my comments at paragraph 50 of Chapter 11 hereof.

³⁶³⁶ Stuart Mortimore,

³⁶³⁷ Stuart Mortimore, 16 March 2010, am, pp. 118-119

³⁶³⁸ Stuart Mortimore, 16 March 2010, pm, p. 55-56, 17 March 2010, am, pp. 103-104.

³⁶³⁹ Stuart Mortimore, 11 March 2010, pm, pp. 15-16, 16 March 2010, am, p. 47.

³⁶⁴⁰ John Madden, 30 March 2010, am, pp. 57-58.

³⁶⁴¹ Chapter 11, paras. 46-47.

³⁶⁴² Chapter 11, paras. 48-50.

69. The very purpose of these two layers of protective insulation was to protect the inner core against the risk of damage against the edge of the knockout³⁶⁴³. David Millar, former Head of Technical Services with the Electrical Contractors' Association of Scotland, described the purpose of a grommet in this way³⁶⁴⁴:-

“... the cables are passing through sharp edges of metal and the Wiring Regulations ... require that these sharp edges should be protected by some means ... rubber grommets or safe edging they are called, strip edging, an edging strip that is put round ... to stop the edge of the metalwork cutting into the sheath of the cable.”

In explaining advice that such a deviation would require to be rectified as soon as possible, he said this³⁶⁴⁵:-

“... there is the possibility that the, if the metalwork is actually connected to earth and ... one of the cables ... was being abra[d]ed by the sharp edges then it could actually cause an earth fault and a high current could flow ... between the cable and the switchgear and they could, in fact, cause a fire. ... there would be a high current flowing which would cause sparking probably and then it could cause fire if there was anything to go on fire close to that.”

In the absence of these layers of insulation it is likely that, over the life of cable V, the PVC insulation of the live conductor of cable V would have become compromised.

70. For arcing to have taken place at the cable V knockout, the red PVC sheath round the inner core would require to have been (or to have become) compromised so that the live conductor and the earthed knockout could come into contact³⁶⁴⁶. PVC is relatively resistant to the effects of abrasion or cutting³⁶⁴⁷. Any explanation as to how the insulation became or could have become compromised needs to be consistent with: (a) the apparently normal operation of the system for a period of some twelve years³⁶⁴⁸; and (b) failure ultimately occurring at a time some hours after the washing machines had last been in operation.

³⁶⁴³ Robert Cairney, 2 August 2010, am, pp. 5-12; Colin Reed, 11 June 2010, am, pp. 16-17, 41-42.

³⁶⁴⁴ David Millar, 1 April 2010, pm, pp. 14-15.

³⁶⁴⁵ David Millar, 1 April 2010, pm, pp. 21-22.

³⁶⁴⁶ Stuart Mortimore, 11 March 2010, pm, p. 25, 16 March 2010, am, pp. 50, 53.

³⁶⁴⁷ Stuart Mortimore, 16 March 2010, pm, p. 9.

³⁶⁴⁸ Stuart Mortimore, 16 March 2010, am, pp. 53-54.

71. A number of possible mechanisms of failure (or potential contributory mechanisms of failure) were identified in evidence.

- a. Damage to the cable during installation³⁶⁴⁹.
- b. Thermal stressing, involving movement of the cable as its temperature changed³⁶⁵⁰.
- c. Mechanical vibration, for example as cupboard doors were opened and closed³⁶⁵¹ or people walked up and down the corridor³⁶⁵².
- d. Tracking - i.e. the flow of current across the surface of the insulation from the point of damage by reason of the presence of dirt, dust or moisture³⁶⁵³.
- e. If one has a very thin layer of insulation and puts a voltage across it, that in itself may degrade the insulation over a period of time³⁶⁵⁴.
- f. Natural ageing to a certain extent could also play a part³⁶⁵⁵.

72. These potential mechanisms of failure are not mutually inconsistent³⁶⁵⁶. Failure could have resulted from a combination of factors, for example partial degradation of the insulation during installation, followed by some other factor or factors such as thermal expansion and contraction and tracking or mechanical vibration³⁶⁵⁷. Mr Mortimore expressed the view that it was not appropriate to seek to select any particular mechanism, given the uncertainties³⁶⁵⁸. Whatever the mechanism of failure of the PVC insulation, arcing would not have occurred had there been a grommet in

³⁶⁴⁹ Stuart Mortimore, 16 March 2010, am, pp. 54-56; see further paras. 64-65 below.

³⁶⁵⁰ Stuart Mortimore, 16 March 2010, am, p. 54; see further paras. 66-78 below.

³⁶⁵¹ Stuart Mortimore, 16 March 2010, am, p. 54; John Madden, 30 March 2010, am, pp. 116-117.

³⁶⁵² Stuart Mortimore, 16 March 2010, pm, p. 52.

³⁶⁵³ Stuart Mortimore, 16 March 2010, am, p. 54, pm, p. 16; see also John Madden, 29 March 2010, am, p. 116; 30 March 2010, pm, pp. 79-82.

³⁶⁵⁴ Stuart Mortimore, 16 March 2010, am, p. 57

³⁶⁵⁵ Stuart Mortimore, 16 March 2010, am, pp. 57-58.

³⁶⁵⁶ John Madden, 30 March 2010, pm, pp. 81-83.

³⁶⁵⁷ Stuart Mortimore, 16 March 2010, pm, pp. 13-15, p. 52; John Madden, 30 March 2010, pm, pp. 82-83.

³⁶⁵⁸ Stuart Mortimore, 16 March 2010, pm, p. 15.

place and the outer sheath had been protecting the cable as it entered the knockout – in other words if there had not been poor installation³⁶⁵⁹.

Thermal effects

73. Both theoretical analysis and experimental work support the conclusion that - if the PVC insulation of the live conductor was resting or pressing against the edge of the knockout, and if the knockout had no grommet or other form of cable protection fitted, and if the edge of the knockout had a sharp edge or burr - it is highly likely that the metal edge of the knockout would have cut into the PVC insulation and that, over an extended period of time, this would cause an earth fault between the live conductor and the metal edge of the knockout³⁶⁶⁰. Mr Madden expressed the view that, given the extended period of time and given those assumptions, “the failure of the insulation by that mechanism was a high probability event”³⁶⁶¹.

74. For reasons set out further below³⁶⁶², I am prepared to find as fact:-

- a. that the PVC insulation of the live conductor was pressing against the edge of the knockout;
- b. that the knockout had no grommet or other form of cable protection; and
- c. that the edge of the knockout was such as to be capable of damaging the insulation of the live core.

75. In these circumstances, it is likely that, over time, the insulation would become compromised by reason of thermal movement.

³⁶⁵⁹ Stuart Mortimore, 16 March 2010, pm, p. 15-17.

³⁶⁶⁰ John Madden, 31 March 2010, am, pp. 11-15.

³⁶⁶¹ John Madden, 31 March 2010, am, p. 15.

³⁶⁶² Paras. 77-78.

Thermal effects: theoretical considerations

76. Copper expands and contracts as it heats up and cools down³⁶⁶³. As current flows through a copper conductor in ordinary operation, the conductor will heat up. The relationship between temperature and current is not a linear one, but any increase in current would result in some temperature rise³⁶⁶⁴. As the temperature of a copper conductor rises, the conductor would expand slightly. When the current drops and the temperature falls, the conductor would shrink again³⁶⁶⁵. The magnitude of the expansion is determined by the change in temperature, the length of the conductor and the coefficient of thermal expansion of copper³⁶⁶⁶.

77. In the context of a core comprising a seven wire strand, one would expect – by reason of the way that the core is manufactured - the PVC insulation to move along with the conductor³⁶⁶⁷. If the insulation of such a core should be pressed against a fixed metal edge, movement of the conductor would produce an abrasion effect or a cutting effect³⁶⁶⁸. Any movement would present the possibility of abrasion³⁶⁶⁹. Whether there would be abrasion or cutting or a combination of the two would depend on the nature of the edge. A very sharp edge would cut the cable, whereas a blunter edge would be inclined to abrade it³⁶⁷⁰.

78. Over its lifetime, cable V would have been subjected to repeated expansion and contraction as a result of changes in the current drawn by the washing machines which it served³⁶⁷¹. In the course of each shift, the switching on and off of the heating elements in the 903 and the Minett had led to very significant changes in the current flowing in the cable³⁶⁷². The magnitude of the current change would vary as the heating elements of the two machines came on and off. It could readily be envisaged that from time to time the heating elements of the two machines would coincide,

³⁶⁶³ John Madden, 30 March 2010, am, pp. 66-67.

³⁶⁶⁴ John Madden, 30 March 2010, am, p., 67; Colin Reed, 11 June 2010, am, pp. 11-14, 26-27, 30-31, 45-46.

³⁶⁶⁵ Colin Reed, 11 June 2010, am, pp. 14-15.

³⁶⁶⁶ John Madden, 30 March 2010, am, pp. 80-82.

³⁶⁶⁷ Colin Reed, 11 June 2010, am, pp. 14-15.

³⁶⁶⁸ Colin Reed, 11 June 2010, am, pp. 15-16.

³⁶⁶⁹ Colin Reed, 11 June 2010, am, pp. 38-39.

³⁶⁷⁰ Colin Reed, 11 June 2010, am, pp. 18-19.

³⁶⁷¹ John Madden, 31 March 2010, am, pp. 1-4, 28.

³⁶⁷² John Madden, 30 March 2010, am, pp. 78-80.

drawing (even with only one of the elements of the Minett working) a current of 31 amps.

79. As the current drawn by the washing machines changed, the temperature of the copper conductor within cable V also changed. As that happened, the conductor would have expanded and contracted³⁶⁷³ and the insulation of the cable would have moved along with that expansion and contraction. The magnitude of the movement would vary according to the wash cycles used from time to time, from perhaps 0.1 mm to more than 0.4 mm³⁶⁷⁴. If the insulation was indeed pressed against the metal edge of the distribution board, over time, movement of this sort would be likely to result in the insulation becoming abraded³⁶⁷⁵. Over time, this could result in the metal edge penetrating all the way through to the conductor itself³⁶⁷⁶.

80. In addition to the thermal effects of changes in current drawn through cable V, there would have been thermal effects attributable to changes in ambient temperature in the care home. In particular, the loft was insulated from the rest of the home and was subject to extremes of temperature. The temperature variations in the loft space would be transferred to the cables running through the loft space, and the copper would expand and contract accordingly³⁶⁷⁷.

Thermal expansion: experimental work

81. These effects were confirmed experimentally by Mr Madden³⁶⁷⁸. A 2 metre length³⁶⁷⁹ of 6 mm² twin and earth cable was clamped at one end on a test bench. The cable was covered with loft insulation. A current of 41 amps was passed through the cable, 8 minutes on and 30 minutes off, continuously 24 hours a day between 24 December 2004 and 6 January 2005. A core covered with red PVC insulation was ran across a 1 mm thick metal edge that had been sharpened slightly to create a burr. A

³⁶⁷³ John Madden, 30 March 2010, am, p. 82.

³⁶⁷⁴ John Madden, 30 March 2010, am p. 113; 1 April 2010, am, pp. 72-77.

³⁶⁷⁵ Colin Reed, 11 June 2010, am, pp. 30-33; James Lygate, 10 August 2010, pm, p. 12.

³⁶⁷⁶ Stuart Mortimore, 16 March 2010, pm, pp. 11-13.

³⁶⁷⁷ John Madden, 30 March 2010, am, pp. 114-116.

³⁶⁷⁸ John Madden, 30 March 2010, am, pp. 88-89, 109-110.

³⁶⁷⁹ Corresponding approximately to the distance between the circuit breaker in the distribution board in cupboard A2 and the point at which cable V was clipped to the rafters: John Madden, 30 March 2010, am, pp. 90-91. 92-93.

250 gram weight was suspended from the wire to make sure that the wire was pressing on the edge. The ambient temperature and the temperature on the cable sheath beneath the mineral wool were measured. During each cycle the cable increased and decreased in temperature by about 15 degrees Centigrade. Each temperature cycle caused the cable to expand and contract by 0.4 mm at the position where the red insulation rested on the brass plate. In the event that the length of the “on” part of the cycle was longer than 8 minutes, the expansion would be greater. The movement varied with the current passing: at 30 amps it was 0.17 mm; at 20 amps it was 0.06 mm; and at 10 amps it was 0.01 mm. Significantly, the expansion and contraction was transmitted to the insulation, which moved backwards and forwards across the fixed metal edge in a sawing motion. This movement resulted in abrasion of the insulation. By the end of the test, the metal had penetrated into the insulation significantly.³⁶⁸⁰.

82. Mr Mortimore stressed the limitations of Mr Madden’s exercise, particularly on the basis that it did not replicate the circumstances at Rosepark³⁶⁸¹. Dr Lygate, in his report, also voiced criticism of the exercise on the same basis³⁶⁸². The experimenters had in fact deliberately decided not to seek to replicate the actual situation, given the significant uncertainties as to the precise details of the situation at Rosepark. The purpose of the exercise was to confirm that the insulation covering the core would, in fact, move in response to thermal effects and that, in these circumstances, the insulation could, if pressed against a metal edge, become abraded³⁶⁸³. Provided appropriate caution is exercised in extrapolating from the results, the experiment provides useful confirmation of the predictions of theory (as expressed in particular by Mr Reed) in these regards.

The assumptions

83. This mechanism of failure depends on three assumptions of fact³⁶⁸⁴:-

³⁶⁸⁰ John Madden, 30 March 2010, am, pp. 83-110.

³⁶⁸¹ Stuart Mortimore, 16 March 2010, pm, pp. 19-24.

³⁶⁸² John Madden, 31 March 2010, pm, pp. 75-77.

³⁶⁸³ John Madden, 30 March 2010, am, pp. 93-94; 109-110, 31 March 2010, am, pp. 24-25, 1 April 2010 am, pp. 76-79.

³⁶⁸⁴ John Madden, 31 March 2010, am, pp. 11-15

- a. The PVC insulation was pressed against the metal edge of the knockout.
- b. The knockout had no grommet or other form of cable protection.
- c. The knockout had an edge sufficiently sharp to cut or abrade the PVC insulation of the live core of cable V.

I hold these assumptions to have been established for the following reasons:

The PVC insulation was pressed against the metal edge of the knockout

84. It is likely that cable V was pressed against the metal edge of the knockout.
 - i. It is likely that cable V was at least resting against the edge of the knockout³⁶⁸⁵. The very fact that there was arcing at cable V implied that the live conductor was very close, if not against the edge of the knockout³⁶⁸⁶.
 - ii. The arcing damage occurred on the lower edge of the knockout. In these circumstances, although it is possible that the cable was fully supported and did not exert any force on the edge of the knockout³⁶⁸⁷, it is likely that the weight of the cable was bearing down to some extent on the lower edge of the knockout³⁶⁸⁸.
 - iii. Cable V was a late addition to the installation³⁶⁸⁹. During installation, it would have been pushed down the back of the partition and then fished through to the front of the distribution board³⁶⁹⁰. There were three other cables which also passed through the upper right knockout³⁶⁹¹. At the conclusion of the work, the cabling would have been pushed back³⁶⁹². Witnesses with experience in

³⁶⁸⁵ James Lygate, 10 August 2010, pm, p. 12.

³⁶⁸⁶ Stuart Mortimore, 18 March 2010, pm, pp. 25-29; John Madden, 30 March 2010, am, p. 74, 31 March 2010, am, pp. 25-26.

³⁶⁸⁷ John Madden, 1 April 2010, am, pp. 80-81.

³⁶⁸⁸ John Madden, 31 March 2010, am, pp. 26-27; see also 31 March 2010, pm, pp. 73-75.

³⁶⁸⁹ Chapter 11, paras. 34-35.

³⁶⁹⁰ John Madden, 30 March 2010, am, p. 72.

³⁶⁹¹ John Madden, 30 March 2010, am, p. 72.

³⁶⁹² John Madden, 30 March 2010, pm, pp. 77-78, 31 March 2010, am, pp. 21-22.

electrical engineering could readily envisage, in these circumstances, how the cable could have ended up pressed against the edge of the knockout³⁶⁹³.

The knockout had no grommet or other form of cable protection fitted

b. For reasons already set out³⁶⁹⁴, I have found that there was no grommet fitted at the knockout, and that the cable sheath was not protecting the live conductor at the point where it passed through the knockout³⁶⁹⁵.

The edge of the knockout was sufficiently sharp to be capable of cutting or abrading the PVC insulation

c. The upper right cable knockout in the distribution board in cupboard A2 presented a bare metal edge which is likely to have been quite sharp³⁶⁹⁶. Although there is variability in the sharpness of the edge of a knockout³⁶⁹⁷, the physical process of creating the knockout tends to leave a sharpened edge³⁶⁹⁸ with burrs along its edge. Where the knockout is taken away, there is no enamel paint around the edge: one is left with bare metal³⁶⁹⁹. In the witness box Stuart Mortimore ran his finger round one of the other knockouts of the distribution board and said this³⁷⁰⁰:-

“... if one looks at one of the others, which would be very similar, and runs a finger round the edge of the hole, it’s fairly clear that it is pretty much 90 degrees and you are going to get a fairly sharp edge along where the metal has been punched out.”

In any event, Mr Reed – who was well-qualified to speak to the issue - gave evidence that even a blunt metal edge could, over time, abrade PVC insulation³⁷⁰¹. Accordingly, in all the circumstances the edge of the knockout is likely to have been capable, in the right circumstances, at least of abrading cable insulation.

³⁶⁹³ Stuart Mortimore, 18 March 2010, pm, pp. 25-29; John Madden, 30 March 2010, am, pp. 72-76.

³⁶⁹⁴ Chapter 11, paragraph 46

³⁶⁹⁵ Chapter 11, paras. 48-50.

³⁶⁹⁶ John Madden, 30 March 2010, am, p. 124.

³⁶⁹⁷ John Madden, 1 April 2010, am, pp. 39-40.

³⁶⁹⁸ John Madden, 31 March 2010, am, pp. 23-24.

³⁶⁹⁹ John Madden, 31 March 2010, pm, pp. 77-78.

³⁷⁰⁰ Stuart Mortimore, 11 March 2010, pm, p. 18

³⁷⁰¹ Colin Reed, 11 June 2010, am, p. 18.

Damage during installation

85. The insulation of the inner core could have been compromised at the time of original installation, for example by being damaged by a knife or other sharp tool during the process of installation³⁷⁰² or by being impaired as it was pulled over – or, more likely, pushed back against - the edge of the knockout³⁷⁰³. The exposure of cable insulation by inadvertent cutting as the outer sheath is cut away is a relatively common installation fault³⁷⁰⁴. Likewise, abrasion of PVC cable by being scraped against a sharp edge is quite a common installation problem³⁷⁰⁵.

86. In Mr Mortimore's opinion, it would be possible for a cable to have been damaged in the course of installation and for that cable nevertheless to continue to operate - perhaps for a long period of time - without apparent difficulty, before that damage gave rise to a short circuit or arcing³⁷⁰⁶. Mr Mortimore instanced an example in which a nail had been put through a cable, without any apparent adverse effects for a time, but which subsequently started to trip because, by reason of cycling (thermal or mechanical), the nail occasionally came into contact with the live core³⁷⁰⁷. Mr Madden acknowledged the possibility, if the insulation had been nicked during installation, that over a period of time dust and moisture could build up to create a tracking path between the internal live wire and through the insulation to the earthed metalwork of the distribution board, ultimately leading to failure in the form of heating and arcing activity, but, because the cable had apparently operated for some 12 years without creating a fault, preferred an explanation involving progressive abrasion of the insulation over a period of time³⁷⁰⁸.

³⁷⁰² Stuart Mortimore, 16 March 2010, am, pp. 51-52.

³⁷⁰³ Stuart Mortimore, 16 March 2010, pm, p. 14; John Madden, 30 March 2010, pm, pp. 77-78, 31 March 2010, am, pp. 21-22, 69-71; 1 April 2010, am, pp. 42-45.

³⁷⁰⁴ Stuart Mortimore, 16 March 2010, pm, p. 9; and see John Madden, 29 March 2010, am, pp. 118-119 under reference to the Pro 857H.

³⁷⁰⁵ John Madden, 1 April 2010, am, pp. 35, 102-104. .

³⁷⁰⁶ Stuart Mortimore, 16 March 2010, am, pp. 54-56.

³⁷⁰⁷ Stuart Mortimore, 16 March 2010, am, pp. 54-56.

³⁷⁰⁸ John Madden, 30 March 2010, pm, pp. 78-81; 1 April 2010, am, pp. 46-49.

The insulation could fail at a time when the washing machines were not in operation

87. Generally speaking, if a fault is going to occur on electrical equipment it occurs when the equipment is in use³⁷⁰⁹. Ignition in the present case occurred some hours after the washing machines had last been in use. For this reason, Dr Lygate considered arcing at the knockout an unlikely cause of the fire (although he accepted that he could not exclude it on this ground³⁷¹⁰). However cable V would, of course, have been live – and would indeed probably have been drawing some very small current – even when the washing machines were not in operation³⁷¹¹. Neither Mr Madden nor Mr Mortimore had difficulty envisaging mechanisms which would account for failure at a time when the washing machines were not operating. Mr Madden put it in this way³⁷¹²:-

“Well, my explanation for it is that the expansion and contraction effects that we have been talking about are not uniquely associated with the washing machine current flowing. My sort of impression or my vision for this is that the metal of the distribution board has migrated right into the insulation of the cable and is just on the point of failure, and then something else happens which tips it over to the point at which the insulation failure occurs; that does not have to be electrically induced thermal expansion and contraction, it could be the other forms of movement that we have been referring to which is natural vibration, thermal cycling in the building, whatever other mechanism that might have caused that final movement that causes it to tip over into the failure mode that I have been talking about. ... I understand the argument which says, well how come it did not fail at the time that the washing machines were in “on” mode. I understand that. My feeling is that I can explain it by that approach ... remember, if we believe this effect has occurred, the migration rate into the insulation is extremely low, extremely low rate of migration and I can quite see it getting to the point where it is just on the point of failure and then something happens to tip it over, and that something could be these other effects that I have been talking about.”

And later in his evidence he returned to the point³⁷¹³:

“I think it’s reasonable for somebody to say well, if we’re looking at expansion and contraction effects, surely the failure would have occurred while the cable was moving as a result of current loading. As I’ve said before, though, I think there are other effects at play here that would explain the time difference between the last wash cycle and the point at which the insulation

³⁷⁰⁹ Stuart Mortimore, 16 March 2010, pm, pp. 50-51.

³⁷¹⁰ James Lygate, 10 August 2010, pm, p. 20, p. 25

³⁷¹¹ Stuart Mortimore, 16 March 2010, pm, pp. 51-52.

³⁷¹² John Madden, 31 March 2010, am, pp. 54-56; see also 31 March 2010, pm, pp. 70-71, 80-83.

³⁷¹³ John Madden, 31 March 2010, pm, pp. 80-83; see also 1 April 2010, am, pp. 63-70.

actually failed; these other expansion and contraction and movement effects that caused that final tipping point to lead to the insulation failure.

SHERIFF PRINCIPAL LOCKHART: Just for these notes, could you just list these other matters?

THE WITNESS: Changes in night-time, daytime, temperatures and so on. And also mechanical movement, natural mechanical vibration in buildings such as this leading to slight movement of the wire against the sharp metal edge. Those are the two main mechanisms that I refer to.

...

We've got to the point where the metal has migrated through the insulation to the point at which it is just on the point of failing, and then something occurs at 4.30, or at that time, to cause that final failure. What was that? We know it's not the current flowing through the washing machines because the washing machines weren't being used. What could it have been that caused that? The two explanations are further movement as a result of temperature cycling, ambient temperature cycling, or mechanical movement caused by natural vibration."

And in re-examination³⁷¹⁴:-

"In terms of mechanical conditions, what sort of thing did you have in mind? - I'm thinking about just natural vibration type effects that might cause movement between the cable and the, the edge of the knockout. For example, somebody opening the door of the cupboard, for example, may well lead to just mechanical vibration. Just disturbing, if you like, mechanically, the distribution board and the cable against it. It's just those sort of mechanical vibrations that, that are a natural occurrence in buildings.

...

Are there mechanical conditions which may occur in a building without any, as it were, human intervention? - Well I have in mind the, just the natural expansion and contraction of the building materials, for example. Buildings tend to creak as the temperature varies because of expansion and contraction of the materials themselves, just natural movements in structures leading to, what I'd term, chosen to call, mechanical vibration type effects.

Yes. Are these effects that may occur, if one thinks of a 24 hour period in January, where, well if one thinks of a 24 hour period in January are these effects that may occur as a result of things which may happen over the course of a 24 hour period? - Yes, I think just people walking down a corridor, for example, will set up vibrations.

Yes. - It's these natural vibrations that occur in structures.

Yes. - Is what I had in mind.

Can, in terms of the natural vibrations in structures, do changes in temperature, or can changes in temperature have a bearing on that? - Yes.

In what way? - Well materials expand and contract as temperature varies. Expansion and contraction of materials leads to movement."

³⁷¹⁴ John Madden, 1 April 2010, am, pp. 104-107.

Mr Mortimore offered the following³⁷¹⁵:-

“... if we got a gradual degradation of the insulation so effectively you’ve got a, electrical stresses across the cable causing it to degrade slowly, if you’ve got tracking building up, that could occur. It may even be the tail end of one of the contraction sequences we’ve been looking at in the thermal expansion and contraction that was suggestion by the gentleman from Pirelli and Mr Madden. Equally, I suppose it could be precipitated by somebody walking up and down the corridor ...”³⁷¹⁶

Given the expertise of Mr Madden and Mr Mortimore in electrical engineering, I am prepared to prefer their evidence in this regard to that of Dr Lygate.

The effect of degradation of the insulation

88. If the edge of the knockout migrated through the insulation but did not come into contact with the live cable, the layer of insulation could have become so thin that current could migrate across the gap. The currents flowing in these circumstances would have been much less than those which would flow in the case of direct contact – and could be such that the circuit breaker would not trip immediately but meantime significant heat could be generated at the point of the fault. The heat could be sufficient to cause PVC to burn³⁷¹⁷, creating the conditions in which an arc could occur.

Arcing at the cable V knockout would readily cause sparks which could escape from the distribution board and fall onto combustible materials below

89. An earth fault at the point where cable V passed through the knockout could have resulted in a fire at the bottom of the southern side of the cupboard by one of the following mechanisms:-

³⁷¹⁵ Stuart Mortimore, 16 March 2010, pm, p. 52.

³⁷¹⁶ We know that Yvonne Carlyle walked past the cupboard very shortly before the initial ignition. On the basis of Mr Mortimore’s evidence, that could have been sufficient to cause the ultimate failure. But there are, on the basis of the evidence of Mr Madden and Mr Mortimore taken together, other explanations which would account for ultimate failure of the insulation at this time, and it would not be safe to find as a fact that this was precipitated by Yvonne Carlyle passing along the corridor.

³⁷¹⁷ John Madden, 31 March 2010, am, pp. 32-40.

- a. Such an incendive event could have ignited plastic within the distribution board (in particular the PVC insulation itself), which then dripped down to flammable materials below the board and spread the fire³⁷¹⁸.
 - b. An earth fault would be likely to involve the ejection of molten globules of metal formed during electrical arcing from the board, and these could have ignited other combustible materials
90. The former mechanism – ignition of plastic within the distribution board dripping down onto flammable materials below – was unlikely.
- a. It is difficult to generate sustained ignition of PVC cable³⁷¹⁹. PVC softens at temperatures from about 80 degrees Centigrade upwards³⁷²⁰.
 - b. The glow-wire tests by HSL on the various plastic components of the distribution board indicated that it was difficult to ignite any of those components and that, by and large, they would not support combustion³⁷²¹ and that they would only melt and flow at very high temperatures.
 - c. There was no evidence of any foreign combustible material inside the distribution board³⁷²².
 - d. Even when tests were done with foreign combustible materials placed inside a distribution board, this did not produce a significant fire within the board³⁷²³.
 - e. There were no visible remains of runs of burnt or partially burnt plastics on the back of the distribution board³⁷²⁴.

³⁷¹⁸ Stuart Mortimore, 16 March 2010, am, pp. 80-81

³⁷¹⁹ Stuart Mortimore, 16 March 2010, am, p. 82; Ivan Vince

³⁷²⁰ Stuart Mortimore, 16 March 2010, pm, p. 47.

³⁷²¹ Stuart Mortimore, 16 March 2010, am, p. 83.

³⁷²² Stuart Mortimore, 16 March 2010, am, pp. 83-84.

³⁷²³ Stuart Mortimore, 16 March 2010, am, pp. 83-84.

³⁷²⁴ Stuart Mortimore, 16 March 2010, am, pp. 80-81.

91. By contrast, under short circuit conditions within the distribution board, a current of up to 2230 amps would flow between any live conductor and earthed metalwork. This is a significant amount of current in terms of heating effects and consequential damage³⁷²⁵. Such a fault between the live conductor of cable V and the edge of the knockout, would be likely to generate an arc causing damage to cable V and the knockout such as was found following the fire³⁷²⁶. Arcing at the cable V knockout would have been likely to generate sparks³⁷²⁷.

92. Tests were undertaken at HSL, Buxton, in which short circuits were deliberately generated at the cable V knockout. These tests demonstrated that a short circuit at that location would readily generate sparks or spatter. This happened, notwithstanding that these tests involved instantaneous direct contact between the live conductor and the edge of the knockout, such that the circuit breaker tripped in a fraction of a second³⁷²⁸. In other words, the presence of the circuit breaker and its operation did not prevent the generation of sparks.

93. Sparks produced by arcing at the cable V knockout could readily escape, particularly from the rear of the board and fall down the gap between the distribution board and the backplate onto materials lying beneath³⁷²⁹.

94. The HSL work demonstrated that such sparks due to arcing at the cable V knockout could escape from the distribution board, both from the front of the board, and down the gap between the back of the distribution board and the wooden backboard³⁷³⁰. If there was in fact no blanking plate over the spare way on the lower busbar then, without the front covers, there would have been a route for sparks to escape from the front of the board. But even if both blanking plates were present, this would not have affected the ability of the sparks to escape down the back of the board³⁷³¹.

³⁷²⁵ John Madden, 29 March 2010, am, pp. 119-121.

³⁷²⁶ John Madden, 30 March 2010, am, pp. 19-20.

³⁷²⁷ Stuart Mortimore, 16 March 2010, am, pp. 80-81; John Madden, 30 March 2010, am, pp. 23-24.

³⁷²⁸ John Madden, 31 March 2010, am, pp. 29-30.

³⁷²⁹ Stuart Mortimore, 16 March 2010, am, pp. 80-81; John Madden, 30 March 2010, am, pp. 23-28.

³⁷³⁰ Stuart Mortimore, 15 March 2010, am, pp. 70-74.

³⁷³¹ John Madden, 30 March 2010, pm, p. 8-9.

95. The video footage of the HSL tests showed how sparks would fly unpredictably from the board but generally in a downward direction. One can readily envisage sparks from an arc at the cable V knockout falling to the very location where the fire started.

Potential fuels

96. There were plenty of combustible solid materials within cupboard A2. All the experts agreed, however, that it would have been very difficult for sparks from the distribution board to ignite solid materials and the HSL experiments gave significant support to those views³⁷³².

97. Such a spark could more readily ignite solid materials soaked in a flammable material, although this would still be difficult. Some colour is given to the possibility that such materials could have been in cupboard A2 by the presence of broken pieces of a bottle of an ethanol-based bodywash, soot-stained in a manner which would be consistent with the bottle having broken before or during the fire – though it would be difficult to imagine a mechanism of failure of the bottle before the fire.

98. A spark from arcing at the cable V knockout could readily ignite a mixture of flammable gas and air within the flammable limits³⁷³³. There is, however, no positive evidence that there was such a flammable atmosphere within cupboard A2. A release from an aerosol could have given rise to such a flammable atmosphere, but such a release was an extremely unlikely event.

The HSL tests

99. These propositions were illustrated by the experimental work undertaken by the HSL, in which attempts were made to ignite various materials using sparks generated by earth faults at the busbar and at the knockout³⁷³⁴.

³⁷³² Stuart Mortimore, 15 March 2010, am, p. 78; Stuart Jagger 22 March 2010, p. 42; Ivan Vince, 11 August 2010, pp. 36-37.

³⁷³³ Stuart Mortimore, 16 March 2010, am, pp. 86-87; Ivan Vince, 11 August 2010, am, p. 70.

³⁷³⁴ Stuart Jagger, 19 March 2010, am, pp. 95ff.

- i. Both types of fault were employed. Initially a standard 80 amp fuse was used. A number of tests were carried out with paper, cardboard and plastic items, but no ignition was obtained.
- ii. The fuse was replaced with re-wireable fuse of lower rating, on the basis that this would increase the spark production. Flammable sheet materials, including tissue paper and industrial paper wipes were spread on a table placed immediately below the base of the distribution board.
- iii. The only ignition obtained with this test arrangement was of tissue paper during one of the simulated earth wire to busbar faults.
- iv. Once such an ignition was obtained, the table height was lowered by about 350 mm and more combustible materials were added to the table. No ignitions were obtained using this arrangement.
- v. Further tests were carried out with the table at a height level with the bottom of the casing but with faults at the knockout. More sparks were produced which appeared more energetic. The table was draped with various combustible materials. 118 tests were undertaken with this configuration, but no ignitions were obtained.
- vi. Tests were undertaken with balls of acrylic wool at the bottom of the distribution board. 38 tests were undertaken. In many of these, sparks struck and penetrated the balls of acrylic. Some remained incandescent for several seconds. On occasion small trails of smoke were observed. In none of the tests did sustained burning occur.
- vii. Tests were undertaken with pieces of paper, card, foam and carpet impregnated with acetone. An ignition of such material was obtained easily when the material was placed level with and just in front of the bottom of the distribution board but was more difficult to achieve with impregnated material placed at floor level. In only one out of 83 tests at floor level was ignition obtained.

viii. Tests were undertaken with a distribution board enveloped in a flammable gas mixture contained within a polythene bag, intended to replicate a flammable atmosphere such as would have been created by an aerosol. Ignition was readily obtained in such circumstances.

b. The HSL conclusion was expressed in the following terms³⁷³⁵:-

“Apart from ignitions of flammable gas and/or liquids, the test results have demonstrated the difficulty of obtaining ignitions and fires in several types of dry combustible materials. Since experimental conditions used were specifically devised to encourage ignitions, the lack of positive results suggest that the likelihood of an ignition is even more remote when conditions are more representative of the real situation.”

Mr Mortimore accepted those conclusions³⁷³⁶. He found it unsurprising that great difficulty had been experienced in igniting materials in the HSL tests³⁷³⁷. Dr Vince explained that for a spark to ignite a fire it would have to vaporize sufficient solid material to form a viable flame kernel and that the chance of this happening was “very low indeed”³⁷³⁸.

c. The HSL report went on to say: “Nevertheless, the possibility cannot be discounted since they are known to occur.” Dr Jagger explained this statement as follows³⁷³⁹:

“The ignition of solid materials with sparks ... is known to occur. There are examples of such instances. Because we found it very difficult to do so, in fact we didn’t get ignitions apart from one with tissue paper, that doesn’t mean to say that they don’t occur. We perhaps didn’t have exactly the right conditions or we didn’t do enough tests. ... Tests in the literature, or examples in the literature, often require several hundred tests before an ignition is obtained.”

Mr Mortimore agreed with this conclusion³⁷⁴⁰. Dr Vince stated: “I wouldn’t like to say that it’s impossible, but it would be extremely difficult”³⁷⁴¹. It is not disputed that, on the basis of the evidence, ignition of solid material by a spark

³⁷³⁵ Pro 1406.

³⁷³⁶ Stuart Mortimore, 15 March 2010, am, pp. 92-93.

³⁷³⁷ Stuart Mortimore, 16 March 2010, am, pp. 108-9.

³⁷³⁸ Ivan Vince, 11 August 2010, am, pp. 37-41.

³⁷³⁹ Stuart Jagger, 22 March 2010, am, p. 42.

³⁷⁴⁰ Stuart Mortimore, 15 March 2010, am, p. 93; see also 16 March 2010, am, p. 85.

³⁷⁴¹ Ivan Vince, 11 August 2010, am, pp. 69, 71.

from an earth fault at the cable V knockout falls to be regarded as an extremely remote possibility.

Solid materials soaked in flammable liquid

100. In the HSL ignition experiments, steps were taken to examine materials soaked in a flammable liquid – namely acetone. Ignition of such material was obtained easily when it was placed immediately below the distribution board. With such material placed at floor level, ignition was obtained in one test out of 83. These experiments demonstrate that ignition of such material is possible - although still difficult³⁷⁴².

101. There are possible ways in which solid material within the cupboard could have become soaked in a flammable liquid.

102. Pieces of a bottle of Bronnley Blue Poppy body splash were found on the left hand side of Shelf 3 of cupboard A2³⁷⁴³. The edges of the pieces of glass were covered with soot deposits, which meant that the breakage had occurred either before the fire or during the course of the fire or very very shortly after the fire³⁷⁴⁴. Had the bottle broken at some point before the fire, the contents would have poured out and, given the quantities, cascaded down the base of the cupboard. Over time the liquid would evaporate and a flammable atmosphere would develop in the vicinity of the liquid³⁷⁴⁵. There is however no obvious explanation as to how the bottle could have become broken before the fire, unless, perhaps, it was knocked over by a member of staff, and it may be difficult to imagine how such an event could have resulted in the bottle fragmenting while remaining on the shelf³⁷⁴⁶.

103. If one of the aerosol cans were to have released its contents, those contents would form a cloud of liquid droplets in the atmosphere³⁷⁴⁷. If this impinged on a

³⁷⁴² Stuart Jagger, 19 March 2010, pm, pp. 104-107; Ivan Vince, 11 August 2010, am, pp. 30-31.

³⁷⁴³ Karen Clark, 9 August 2010, am, p. 94.

³⁷⁴⁴ Stuart Mortimore, 2 August 2010, pm, pp. 28-30.

³⁷⁴⁵ Stuart Mortimore, 2 August 2010, pm, pp. 30-31.

³⁷⁴⁶ Cp Stuart Mortimore, 2 August 2010, pm, pp. 30-31.

³⁷⁴⁷ Stuart Jagger, 19 March 2010, pm, pp. 30-31.

surface, one could get a surface soaked in the liquid. Over time, there would thereafter be a process of evaporation of that liquid³⁷⁴⁸.

Flammable atmosphere

104. The HSL experimental work demonstrated that a flammable atmosphere could readily be ignited by a spark from the distribution board. Cupboard A2 contained a quantity of aerosols. A release from an aerosol such as to create a flammable atmosphere within the cupboard would be an extremely unusual event, but such an event is possible and cannot be excluded.

105. Aerosol cans contain hydrocarbons which, if released, will become gaseous. Hydrocarbon gases require to be in a certain concentration (typically 2-10%) in air to be flammable. If the fuel is too rich (i.e. above the upper flammability limit) or too lean (i.e. below the lower flammability limit) it will not ignite³⁷⁴⁹. A flammable concentration of hydrocarbon gas could readily be ignited by a spark or hot surface³⁷⁵⁰.

106. The pattern of damage seen in the cupboard would not be inconsistent with an ignition of a flammable cloud of hydrocarbon gas having occurred. Mr Martin took the view that ignition of a release from an aerosol would have caused more damage than was seen in the photographs³⁷⁵¹. But Mr Mortimore did not agree. He explained that ignition of a gas air mixture would tend to produce a very short duration “woof” which would not leave significant fire patterns and would not necessarily move the cupboard door or dislodge shelves, but could ignite other materials within the cupboard³⁷⁵². Dr Vince agreed³⁷⁵³.

107. There is no positive evidence that any of the aerosol cans within the cupboard released their contents before the fire, and such a release, although it cannot be excluded, would be an extremely rare event. Furthermore, any release would have to

³⁷⁴⁸ Stuart Jagger, 19 March 2010, pm, pp. 33-35.

³⁷⁴⁹ Christopher Martin, 30 July 2010, am, p. 32; Ivan Vince, 11 August 2010, am, pp. 74-75.

³⁷⁵⁰ Christopher Martin, 30 July 2010, am, pp. 37-38, pm, pp. 21-22.

³⁷⁵¹ Christopher Martin, 30 July 2010, pm, pp. 52-54.

³⁷⁵² Stuart Mortimore, 16 March 2010, am, pp. 87, 93-97; 2 August 2010, pp. 38-41.

³⁷⁵³ Ivan Vince, 11 August 2010, am, pp. 54-56.

be such, in the context of the ventilated cupboard, as to produce a flammable cloud large enough to ignite materials at the base of the cupboard, yet one which did not cause overpressures consistent with the pattern of damage. While such an event cannot be excluded, it is extremely improbable.

a. Aerosol cans are very reliable containers³⁷⁵⁴. They are a very secure, robust method of containing pressurized LPG³⁷⁵⁵. Whilst in storage, large leaks (such as would discharge the contents of an aerosol can) can occur but are rare³⁷⁵⁶. An undamaged aerosol stored in a dry environment which is not going to impair its integrity is a safe container and should not discharge its contents. Many millions of aerosols are purchased in Europe every year and there are only a handful of reported cases of leaking aerosols. Those cases which are reported can be explained by some external factor³⁷⁵⁷.

b. In the course of manufacture steps are taken to check the integrity of aerosol cans³⁷⁵⁸. In particular, every aerosol that is manufactured is individually pressure-tested³⁷⁵⁹. An aerosol can should be capable of withstanding a pressure of 15 bar g (15 times atmospheric pressure)³⁷⁶⁰. Likewise, every aerosol can is tested for leaks with machines which can detect a leak rate down to a fraction of a milligram per second³⁷⁶¹.

c. A slow leak in an aerosol can, sufficiently small in magnitude not to be detected by the leak tests to which the can would have been subjected during manufacture, could not generate a flammable atmosphere in cupboard A2³⁷⁶².

d. Three potential mechanisms have been identified which could result in a large leak from an aerosol which is stored in a dry environment in a cupboard such as cupboard A2:

³⁷⁵⁴ Christopher Martin, 30 July 2010, pm, p. 17; see also Stuart Mortimore 2 August 2010, pm, p. 17.

³⁷⁵⁵ Christopher Martin, 30 July 2010, pm, p. 47.

³⁷⁵⁶ Christopher Martin, 30 July 2010, am, p. 24.

³⁷⁵⁷ Christopher Martin, 30 July 2010, am, pp. 24-25, 113-114.

³⁷⁵⁸ Christopher Martin, 29 July 2010, pm, pp. 62-63.

³⁷⁵⁹ Christopher Martin, 29 July 2010, pm, pp. 57-58, 62-63.

³⁷⁶⁰ Christopher Martin, 29 July 2010, pm, pp. 67-69.

³⁷⁶¹ Christopher Martin, 30 July 2010, am, pp. 22-23.

³⁷⁶² Christopher Martin, 30 July 2010, am, pp. 35-37.

- i. If an aerosol was stored without its cap on and something was placed on the actuator such that it depressed the actuator, the contents could be discharged through the actuator. It would be necessary for the mechanism to continue to be depressed over time. The release would occur immediately on the object being placed on the mechanism and depressing it³⁷⁶³. In such an event most of the contents of the aerosol would be released³⁷⁶⁴.
- ii. An aerosol which had been impaired by corrosion when stored elsewhere and which was then placed in a relatively dry place in a cupboard could fail spontaneously at any time³⁷⁶⁵. In such an event most of the contents of the aerosol would be released³⁷⁶⁶.
- iii. An aerosol which had a substantial weight put on it might be caused to burst. An aerosol which had merely been dented would not tend to leak³⁷⁶⁷; it would require to be a substantial weight³⁷⁶⁸. In such an event most of the contents of the aerosol would be released³⁷⁶⁹.
- e. A release by one of these mechanisms, could create a flammable atmosphere within cupboard A2, though it would tend to be one of very short duration³⁷⁷⁰. In order for a catastrophic release from an aerosol to be the explanation for the initial event, the aerosol can would have to fail at virtually the same time as there was a spark³⁷⁷¹. The coincidence required for this to be the explanation drove Dr Vince to seek a mechanism which would generate an intermediate rate of release. He postulated, as a possibility, a catastrophic release of an aerosol within the inner cupboard, leaking out through gaps around

³⁷⁶³ Christopher Martin, 30 July 2010, am, pp. 25-27.

³⁷⁶⁴ Christopher Martin, 30 July 2010, am, pp. 48-49.

³⁷⁶⁵ Christopher Martin, 30 July 2010, am, pp. 27-29, 114.

³⁷⁶⁶ Christopher Martin, 30 July 2010, am, p. 48.

³⁷⁶⁷ Christopher Martin, 30 July 2010, pm, pp. 48-49 (still quite a safe article if they're dented, though he would not keep a dented aerosol in his house)

³⁷⁶⁸ Christopher Martin, 30 July 2010, am, pp. 29-31.

³⁷⁶⁹ Christopher Martin, 30 July 2010, am, p. 49.

³⁷⁷⁰ Stuart Mortimore, 2 August 2010, pm, pp. 17-18.

³⁷⁷¹ Ivan Vince, 11 August 2010, am, p. 73.

the cupboard. If an aerosol on the lower shelf of the small cupboard had failed and released its contents, the volume of that shelf would rapidly fill with flammable gas. The gas would then gradually leak out through any gaps in the construction of the small cupboard³⁷⁷². There are too many variables to undertake any meaningful calculations but a flammable mixture could in these circumstances develop within the main body of the cupboard³⁷⁷³.

f. In order for ignition to occur, the flammable concentration would require to be in the location of the spark³⁷⁷⁴.

g. The following aerosol cans found within cupboard A2 had failed in a manner characteristic of a can exposed to external heating by fire:-

(a) The aerosol can, Label 627³⁷⁷⁵ (found amongst debris on the floor).

(b) The two aerosol cans, Label 628³⁷⁷⁶ (found amongst debris on the floor).

(c) The aerosol can, Label 629³⁷⁷⁷ (found in the middle of shelf 3).

(d) The aerosol can, Label 631³⁷⁷⁸ (found amongst debris on the floor).

(e) The aerosol can, Label 487³⁷⁷⁹ (found at the back of the lower shelf of the inner cupboard).

h. When Mr Martin examined the aerosol cans in Labels 486, 488 and 490 (which were all from the lower shelf of the upper cupboard) he found them to be suffering from corrosion³⁷⁸⁰. There was evidence that the corrosion had

³⁷⁷² Christopher Martin, 30 July 2010, am, pp. 70-77.

³⁷⁷³ Stuart Mortimore, 2 August 2010, pm, pp. 20-21; Ivan Vince, 11 August 2010, am, pp. 43-44

³⁷⁷⁴ Christopher Martin, 30 July 2010, am, p. 41.

³⁷⁷⁵ Christopher Martin, 30 July 2010, am, pp. 56-58.

³⁷⁷⁶ Christopher Martin, 30 July 2010, am, pp. 58-62.

³⁷⁷⁷ Christopher Martin, 30 July 2010, am, pp. 61-64.

³⁷⁷⁸ Christopher Martin, 30 July 2010, am, pp. 61-64.

³⁷⁷⁹ Christopher Martin, 30 July 2010, am, pp. 89-90.

³⁷⁸⁰ Christopher Martin, 30 July 2010, am, pp. 64-70 (Label 490); 82-89 (Label 488)

occurred while the aerosols were in storage in wet conditions resulting from the fire fighting activities following the fire³⁷⁸¹. The aerosols in Label 488 exhibited general corrosion along the bottom and top crimps and the side weld³⁷⁸², whereas when corrosion causes a problem this tends to be in a specific location, typically the bottom crimp³⁷⁸³. The aerosols in Label 490 were likewise suffering from general corrosion on the body of the can, the base of the crimp was pitted and rusted and the top crimp and seam were also well rusted³⁷⁸⁴. This rusting was not apparent in Pro 834C, the photograph of the aerosols taken shortly after the incident³⁷⁸⁵. The shrinkwrapped Insette aerosols in label 486 were corroded at the bottom crimps but the top crimps were in good condition and could still operate to discharge the content of the aerosols. Mr Martin inferred that this was because the top crimps had been covered by the cap and so had not been exposed to so much wetness in storage. On some of the loose aerosols contents had been discharged from the top crimp. This appeared to have happened since the fire, since the discharged lacquer appeared clear and above the smoke damaged aerosol³⁷⁸⁶. The possibility of there having been a corroded can in the cupboard before the fire cannot, however, be excluded³⁷⁸⁷.

The alternative explanation: operation of a circuit breaker

108. In the ordinary operation of the distribution board in cupboard A2, the only event which could generate an arc would be the tripping of a circuit breaker, which would create an arc at the contact inside a circuit breaker³⁷⁸⁸. If the board happened to be enveloped in a flammable atmosphere at that time, the arc could well ignite the flammable atmosphere³⁷⁸⁹.

³⁷⁸¹ Christopher Martin, 30 July 2010, am, pp. 64-70.

³⁷⁸² Christopher Martin, 30 July 2010, am, pp. 93, 96-97.

³⁷⁸³ Christopher Martin, 30 July 2010, am, pp. 93-94.

³⁷⁸⁴ Christopher Martin, 30 July 2010, am, p. 99.

³⁷⁸⁵ Christopher Martin, 30 July 2010, am, pp. 95-100, 100-101, pm, pp. 1-4.

³⁷⁸⁶ Karen Walker, 9 August 2010, am, pp. 82-87, 101-102.

³⁷⁸⁷ Christopher Martin, 30 July 2010, pm, p. 5.

³⁷⁸⁸ John Madden, 31 March 2010, am, pp. 49, 51-52.

³⁷⁸⁹

109. If a light bulb blows, it can cause a circuit breaker to trip³⁷⁹⁰. This is somewhat less likely where the light is plugged into a ring main circuit (where the circuit breaker would be at about 32 amps) rather than being part of a lighting circuit (which would be rated about 6 amps)³⁷⁹¹.

110. The tripping of a circuit breaker would almost certainly generate a spark or arc inside the circuit breaker³⁷⁹². The spark would be generated in the area of the contact mechanism within the circuit breaker³⁷⁹³. Such an arc can have sufficient energy to ignite a flammable atmosphere should one be present around the board at the time³⁷⁹⁴.

111. There are two factors which make it somewhat improbable that one could get a spark in a circuit breaker igniting gases outside the circuit breaker. Firstly, it would be difficult for gases to get into the breaker to be ignited by the spark generated at the contacts. Secondly, it would be difficult for the flame to get back out. This would not however be impossible³⁷⁹⁵. And Dr Vince identified the possibility that a plasma jet could be emitted from the circuit breaker.

112. There are two difficulties with this explanation:

a. An arc or spark within a circuit board of this sort would pose no danger unless there was a flammable cloud. This explanation accordingly depends critically on the presence of a flammable cloud at just the right time and also in the right location – i.e. at the distribution board itself. It accordingly depends not only on a very unlikely event occurring – namely, a spontaneous release from an aerosol – but on that event producing a cloud of flammable gas of the right proportions at the distribution board just when a circuit breaker tripped.

b. There is no evidence that such a release occurred. Furthermore, there is no evidence, if it is correct that Mrs Burns was speaking of events after the fire

³⁷⁹⁰ John Madden, 1 April 2010, am, pp. 96-97; Stuart Mortimore, 2 August 2010, pm, p. 11.

³⁷⁹¹ Stuart Mortimore, 2 August 2010, pm, p. 14.

³⁷⁹² John Madden, 1 April 2010, am, p. 98; Stuart Mortimore, 2 August 2010, pm, p. 11.

³⁷⁹³ Stuart Mortimore, 2 August 2010, pm, p. 13.

³⁷⁹⁴ John Madden, 31 March 2010, am, p. 50; 1 April 2010, am, p. 98.

³⁷⁹⁵ Stuart Mortimore, 2 August 2010, pm, pp. 14-16.

started, of any event occurring which could have resulted in a circuit breaker within the board tripping.

113. Indeed, a flammable cloud in the cupboard due to a release from an aerosol could readily have been ignited by sparks from an arc at the cable V knockout. All that would be required would be for those sparks to pass through the flammable atmosphere. Accordingly, this scenario (i.e. a scenario which involves a flammable atmosphere being ignited by sparks due to arcing at the cable V knockout) would not be dependent on the flammable atmosphere being located at the board itself. For example, if there were to have been an accumulation of gas at low level in cupboard A2, such an accumulation could be ignited by a spark travelling through it and this could in turn ignite combustible materials at the lower left hand side of the cupboard³⁷⁹⁶.

Note to Chapter 43

As I have stated, I have adopted the Crown submissions in their entirety and the above narrative reflects this. I do not propose to make a summary of these findings as they require to be read as a whole. I only wish to make the following points:

1. The evidence indicates three possible explanations for the fire:
 - (a) a mechanism involving human action such as the throwing away of a cigarette end
 - (b) the tripping of a circuit breaker simultaneously with one of the aerosols in the cupboard releasing its contents resulting in a flammable cloud at the distribution board and
 - (c) arcing at the cable V knockout.
2. I consider that a cause of fire based on human action can be excluded for the reasons set out in paragraphs 25 to 44. In so doing, I accept the submissions made on behalf of the members of staff who were on duty that night. There is absolutely no evidential base for this proposal. That disposes of explanation (a).

³⁷⁹⁶ Stuart Jagger, 19 March 2010, pm, p. 51-52.

3. The Crown set out five potential sources of ignition. The Merlin Gerin circuit breaker is in my view satisfactorily discounted in paragraphs 49 to 51. Overheating of cable V is satisfactorily discounted at paragraph 52. Arcing at the upper busbar is satisfactorily discounted at paragraphs 53 to 55, particularly in view of the statement attributed to Mrs Robina Burns. The residual current devices (RCDs) are satisfactorily discounted at paragraph 56. The only explanation for which there is an evidential base is arcing at cable V. The cable V knockout is the cause of the fire. This case is made out in paragraphs 61 to 107.

4. I attach particular weight to the evidence of Dr Lygate who accepted that, if the fire was not caused by discarded smoking materials, an arc generated at the cable V knockout was the likely cause.

5. Dr Lygate said of the aerosol release/circuit breaker theory “You are getting into the bounds of the very unlikely”. Dr Vince accepted that it was not unfair to characterise this theory as “a speculative possibility”. It is dealt with at paragraphs 108 to 113. It involved, simultaneously, one of the aerosols in the top righthand corner of cupboard A2 releasing its contents resulting in a flammable cloud at the distribution board at the same time as a circuit breaker tripped – thus Dr Lygate’s conclusion. In my opinion it is no more than a “speculative possibility”. There is no evidential base for it. That disposes of explanation (b).

6. On the other hand, the explanation of an arc generated at the cable V knockout has an evidential base which I accept and which has been set out in full.

7. I should explain it is not a case where I have accepted the least unlikely explanation. In my opinion the circumstantial case, which is based on the evidence, is logical and compelling and I am prepared to accept it. It was said on behalf of Alexander Ross that it was not any part of his submission that the fire at Rosepark was proved to have been initiated as a result of the ignition of flammable gases discharged from aerosols stored in the cupboard. The essence of the submission was that whilst there are three or more hypotheses in relation to the cause of the fire, there were significant evidential problems in relation to the proof of each of these. It was submitted that, for different reasons, each hypotheses was improbable. If that was so, it was submitted it would be an erroneous approach for the court to feel compelled to choose what might be said to be the least improbable theory. In these circumstances it was submitted that the appropriate course would be to find that the cause of the fire had not been proved.

The detailed submissions on behalf of the Balmer Partnership and Alexander Ross are set out in full in the Appendix. I have given careful consideration to them. There is no evidential base for the explanation that the fire was caused by human action or by the tripping of a circuit breaker simultaneously with one of the aerosols in the cupboard releasing its contents resulting in a flammable cloud at the distribution board. I have concluded, for the reasons set out in the Crown submissions which I have adopted, that, on the balance of probabilities, the fire was caused by an earth fault occurring where cable V passed through the righthand knockout at the back of the distribution box in cupboard A2.

CHAPTER 44(1): CABLE PROTECTION - INSULATION AT THE CABLE V KNOCKOUT

Reference is made to Chapters 11, 12, 13 and 43.

I have found at RP1:n

1. It would have been a reasonable precaution:

(a) for a grommet or other cable protection to have been fitted at the upper righthand knockout of the distribution board when the system was installed and, in any event, when cable V was installed; and

(b) for the installation to have been undertaken in such a manner that the outer sheath of cable V was protecting the inner cores as they passed through the knockout.

2. Had there been a grommet in place, or if the outer sheath of cable V had been protecting the inner cores as they passed through the knockout, the metal edge of the knockout would not have come into contact with the live conductor of cable V. The accident resulting in the deaths and the deaths themselves might have been avoided. In any event, the accident might have been avoided.

1. The basic means of preventing a short circuit within an electrical installation (with the attendant risk of fire) is to ensure that live conductors are protected by insulation suitable for the environment in which the conductors are being used³⁷⁹⁷. Any live conductor passing through the upper righthand knockout of the distribution board in cupboard A2 should, had normal electrical practice been followed, have been protected by three layers of insulation: (i) the PVC insulation round the live conductor itself; (ii) the outer sheath of the cable,

³⁷⁹⁷ John Madden, 29 March 2010, am, p. 42.

which should have continued inside the board so as to protect the conductors from coming into contact with the edge of the knockout; and (iii) a grommet on the edge of the knockout itself.

2. The fitting of a grommet or other cable protection at the knockout would have been a reasonable precaution against the risk of damage to cabling passing through that knockout.

2.1. Where a cable passes through a knockout in a metal distribution board (which is liable, by reason of the way it is made to have sharp edges and burrs), it is reasonably foreseeable that the insulation of the cable may become damaged by abrasion if it is not adequately protected at the location of the knockout. If the insulation becomes abraded in such a manner that the live conductor comes into contact with the metal edge, this creates a danger of arcing which may cause fire³⁷⁹⁸.

2.2. At all relevant times it has, for this reason, been normal practice to fit a grommet strip (or a strip of PVC cable) to the metal edge of a cable knockout in a distribution board to reduce the risk of any cable coming into contact with the edge and the risk of cutting the cable³⁷⁹⁹.

2.3. Regulation 6 of the 1989 Regulations (which was in force at all relevant times) provided as follows:-

“Electrical equipment which may reasonably foreseeably be exposed to –

(a) mechanical damage

...

shall be of such construction or as necessary protected as to prevent, so far as is reasonably practicable, danger arising from such exposure.”

2.4. The 15th edition of the IEE Regulations (which applied at the time when Rosepark was constructed) provided³⁸⁰⁰:-

³⁷⁹⁸ David Millar, 1 April 2010, pm, pp. 14-15, 21-22.

³⁷⁹⁹ Alexander Ross, 28 January 2010, pm, p. 72; Robert Cairney, 2 August 2010, am, pp. 10-12; Colin Reed, 11 June 2010, am, pp. 16-17.

³⁸⁰⁰ Pro 1948, p. 67; John Madden, 31 March 2010, am, pp. 34-36.

“523.19. All conductors and cables shall be of a type suitably constructed to withstand any risk of mechanical damage, to which they may be liable in normal conditions of service, or should be adequately protected against such damage.

...

523.21. Where cables pass through holes in metal work, precautions should be taken to prevent abrasion of the cables on any sharp edges.”

2.5. Equipment such as distribution boards should be installed in accordance with the manufacturer’s recommendations³⁸⁰¹. The installation manual for the Memera 2000 distribution board specifically instructed that cable protection should be fitted³⁸⁰². Indeed, the requirement is highlighted by being printed in bold text, in the following terms: “Where cables enter knockouts unprotected (i.e. not in a conduit or terminating in a gland) grommets should be fitted to protect cable insulation from damage”³⁸⁰³.

2.6. The requirement for protection had been drawn specifically to the attention of Star Electrical Services (Strathclyde) Ltd by David Millar, then a SELECT inspector, in April 1990. In April 1990, Mr Millar inspected an electrical installation undertaken by Star Electrical Services Ltd at Law Hospital, Carlisle. His inspection report dated 10 April 1990 noted “Protection against abrasion required where cables enter metal switchgear” in relation to two wards. The comments read inter alia: “The deviations listed above require to be rectified as soon as possible”³⁸⁰⁴.

2.7. Grey PVC had been fitted round the edges of the knockouts in the distribution board on the lower floor to provide protection for the cables passing through the knockouts of that distribution board³⁸⁰⁵.

3. Cable V was installed after the rest of the installation, but before the home opened. Whoever undertook this work had to pull the cable through the knockout. It

³⁸⁰¹ Robert Cairney, 2 August 2010, am, p. 22.

³⁸⁰² Pro 1278, Annex 11 (manuscript p. 84); John Madden, 30 March 2010, am, pp. 125-126.

³⁸⁰³ Pro 1278, Annex 11 at manuscript p. 85.

³⁸⁰⁴ Pro 1236, p. 5; David Millar, 1 April 2010, pm, pp. 20-23, 36-39.

³⁸⁰⁵ John Madden, 29 March 2010, am, pp. 122-124.

should have been obvious to that person that no grommet or other cable protection was in place at the knockout. Whoever undertook this work should have ensured that the grommet was in place³⁸⁰⁶ The electrician who undertook the installation should have done so in such a manner that the outer sheath of cable V was protecting the inner cores as they passed through the knockout³⁸⁰⁷.

4. Had there been a grommet in place, it is unlikely that the metal edge of the knockout would have come into contact with the live conductor of cable V, and the fire would not have occurred. Equally, if the outer sheath of cable V had been protecting the inner cores at the point where they passed through the knockout, it is unlikely that the metal edge of the knockout would have penetrated to the live conductor of cable V, and the fire would not have occurred³⁸⁰⁸. For this reason, had either of these precautions been taken, all of the deaths might have been avoided.

Note to Chapter 44(1)

On behalf of the Balmer Partnership it is accepted that first finding would have been a reasonable precaution. It is submitted that the second determination should not be made because of the conclusions reached by Dr Lygate. I have decided, for the reasons set out at Chapter 43, not to accept Dr Lygate's conclusions. On behalf of Alexander Ross it is stated that, if the court was satisfied on the cause of the fire advanced by the Crown, no issue was taken with the proposed findings.

³⁸⁰⁶ John Madden, 31 March 2010, am, pp. 67-68.

³⁸⁰⁷ David Millar, 1 April 2010, am, p. 15; Robert Cairney, 2 August 2010, am, pp. 9-11.

³⁸⁰⁸ John Madden, 30 March 2010, am, pp. 57-58; John Madden, 31 March 2010, am, pp. 79-80..

CHAPTER 44(2): INSPECTION AND TESTING OF THE ELECTRICAL INSTALLATION

Reference is made to Chapters 11 and 12.

I have found at RP2:

1. It would have been a reasonable precaution for the distribution board to have been inspected and tested in accordance with the IEE Regulations at least on the following occasions:-

1.1. On completion of the electrical installation at Rosepark in 1992;

1.2. When the system was modified to add cable V; and

1.3. Not later than the fifth and tenth anniversaries of the completion of the electrical installation.

2. Had the system been inspected and tested in accordance with the IEE Regulations, the accident and the deaths might have been avoided.

1. The IEE Regulations as they have stood from time to time have required: (a) that on completion of an electrical installation, or in the event of a material alteration to it, the installation should be inspected and tested; and (b) that electrical installations should be subject to period inspection and testing³⁸⁰⁹.

Inspection and testing on completion of the installation

2. Chapter 61 of the 15th edition of the IEE Regulations, which applied to the original installation of the electrical system at Rosepark, provided that every installation should on completion, and before being energised, be inspected and tested

³⁸⁰⁹ David Millar, 1 April 2010, am, p. 13.

in accordance with the requirement of Chapter 61, “to verify as far as practicable that the requirements of these Regulations have been met”³⁸¹⁰. The Regulations required both a visual inspection and testing³⁸¹¹. The visual inspection was “to verify that the installed electrical equipment is in accordance with the applicable British Standards, correctly selected and erected in accordance with these Regulations and not visibly damaged so as to impair safety”³⁸¹².

3. The installation was not inspected and tested on completion: see above.
4. Had an inspection been undertaken in accordance with the IEE Regulations on completion of the installation, the absence of a grommet or other cable protection at the cable knockout would have been identified³⁸¹³.

Inspection and testing on completion of an alteration to the installation

5. Regulation 621-1 of the 15th edition of the IEE Regulations and Regulation 721-010-2 of the 16th edition provided³⁸¹⁴:

“For an alteration to an existing installation it shall be verified that the alteration complies with these regulations and does not impair the safety of the existing installation.”

6. The addition of cable V to the installation would fall to be regarded as an alteration and, if it had been undertaken after the original installation had been inspected and certified (assuming that had happened), the electrician installing it should have inspected, tested and certified it in accordance with the Regulations³⁸¹⁵.

³⁸¹⁰ Pro 1948, Regulation 611-1 (p. 113 electronic, p. 103 at bottom right hand corner); John Madden, 31 March 2010, am, pp. 86-88.

³⁸¹¹ Pro 1948, Regulations 612, 613; John Madden, 31 March 2010, am, pp. 88-90.

³⁸¹² Pro 1948, Regulation 612; John Madden, 31 March 2010, am, p. 88.

³⁸¹³ Alexander Ross, 28 January 2010, am, pp. 49-50.

³⁸¹⁴ Pro 1948, p. 106 (bottom of page); Pro 1415, p. 159; John Madden, 31 March 2010, am, pp. 103, 109-110.

³⁸¹⁵ John Madden, 31 March 2010, am, pp. 104-107. The provisions are as follows: 16th edition, Chapter 73 (Pro 1414, p. 159: see John Madden, 31 March 2010, am, pp. 109-111).

7. It may reasonably be inferred that no inspection and testing complying with the IEE Regulations was undertaken at this stage, since such a process would (see below) have identified the absence of the grommet.

8. The question of whether the addition of the second isolator switch in the laundry would fall to be regarded as an alteration was debatable. A cautious approach would have been to treat it as an alteration (which would have required inspection and testing of the relevant part of the system), but this would be open to reasonable debate³⁸¹⁶.

Periodic inspection and testing

9. It would, in any event, have been a reasonable precaution for the electrical installation to have been subject to periodic inspection and testing.

9.1. Regulation 4(2) of the Electricity at Work Regulations 1989 (which was in force at all relevant times) provided:-

“As may be necessary to prevent danger, all systems shall be maintained so as to prevent so far as is reasonably practicable such danger.”

The fixed electrical installation at Rosepark was an electrical system which fell within the scope of this provision. Failure to carry out maintenance of the system created a risk of injury due to damage and deterioration of the system³⁸¹⁷.

9.2. The Memorandum of Guidance to the Regulations published by the HSE advises that regular inspection of equipment is an essential part of any preventive maintenance programme³⁸¹⁸. This is the normal method of satisfying the requirement for maintaining an electrical installation³⁸¹⁹.

³⁸¹⁶ John Madden, 31 March 2010, am, pp. 122-123.

³⁸¹⁷ John Madden, 31 March 2010, pm, pp. 38-39.

³⁸¹⁸ John Madden, 31 March 2010, pm, pp. 39-40.

³⁸¹⁹ See above.

9.3. The IEE Regulations as they existed throughout the life of Rosepark Care Home before the fire, required that electrical installations be inspected and tested periodically³⁸²⁰.

10. The electrical installation of a care home should be inspected and tested by a qualified electrician or someone with the appropriate competence at least every five years³⁸²¹.

10.1. The Memorandum of Guidance to the Electricity at Work Regulations published by the HSE advised that the frequency at which preventative maintenance required to be carried out is a matter for the judgment of the duty holder³⁸²².

10.2. At the time when the Home was constructed five years was the default period for periodic inspection and testing, specified in a Note in the IEE Regulations. This would have applied to a care home³⁸²³.

10.3. In 1992, in conjunction with the 16th edition of the IEE Regulations, the IEE published a Guidance Note on Inspection and Testing. Table 4A of this Guidance Note³⁸²⁴ specified five years as the appropriate maximum period between inspections for hospitals. This could reasonably be applied to care homes³⁸²⁵.

10.4. The same maximum period was recommended for hospitals in subsequent editions of the IEE Guidance Note, published in June 1995 and 1997³⁸²⁶.

³⁸²⁰ 15th edition, Pro 1948, Chapter 63 (p. 106 at bottom right); John Madden, 31 March 2010, am, pp. 93-94; 16th edition, Pro

³⁸²¹ Stuart Mortimore, 16 March 2010, pm, p. 18; John Madden, 31 March 2010, am, p. 97.

³⁸²² John Madden, 31 March 2010, pm, pp. 39-40.

³⁸²³ Pro 1948, Appendix 16, Note (p. 220 at bottom right); John Madden, 31 March 2010, am, pp. 96-100.

³⁸²⁴ Pp. 22-23.

³⁸²⁵ Pro 1417; John Madden, 31 March 2010, pm, pp. 1-5.

³⁸²⁶ Pro 1418, Pro 1419; John Madden, 31 March 2010, pm, pp. 6-8, 12-16.

10.5. Given the complex nature of the inspections and tests, and the attendant risk of injury, these inspections and tests should be carried out by a qualified electrician or by someone else with appropriate competence³⁸²⁷.

11. Although there would have been no objection to more frequent inspection – and, indeed, the IEE certificate issued by Mr. Ross and a colleague on completion of the electrical installation at Croftbank House in 1996 recommended inspection and testing after an interval of not more than two years³⁸²⁸ - the electrical installation at Rosepark should accordingly have been inspected and tested at least every five years³⁸²⁹. On that basis, it would have been reasonable for the Home to have been inspected in accordance with the IEE Regulations not later than February 1997 and again not later than February 2002.

No inspection and testing in accordance with IEE Regulations was being undertaken

12. No inspection and testing in accordance with IEE Regulations was undertaken at Rosepark before the fire in January 2004: see Chapter 12 above.

Had the installation been inspected and tested the accident and the deaths might have been avoided

13. Had periodic inspection and testing been undertaken to the standard to be expected under the IEE Regulations, the absence of a grommet or other form of cable protection at the cable knockout would have been identified³⁸³⁰.

13.1. Periodic inspection and testing would involve a person examining the fixed parts of the electrical examination, looking for damage, deterioration, wear and tear and non-compliance with the British Standard. In addition, a sample of the installation should be tested³⁸³¹.

³⁸²⁷ John Madden, 31 March 2010, pm, p. 44

³⁸²⁸ Pro 1108, p. 9; Thomas Balmer, 30 April 2010, pm, pp. 2-3.

³⁸²⁹ John Madden, 31 March 2010, pm, pp. 4-5.

³⁸³⁰ Alexander Ross, 28 January 2010, am, pp. 49-50; John Madden, 31 March 2010, pm, p. 47.

³⁸³¹ John Madden 31 March 2010, am, p. 94.

13.2. In the context of a periodic inspection undertaken in accordance with the IEE Regulations, the electrician undertaking the inspection would require to remove the front cover of a distribution board such as the distribution board in cupboard A2, so that he could visually inspect the inside of the unit. He would inter alia look for loose connections, signs of overheating and damage, wear and tear, ingress of moisture and dust. He would check that the cables are not damaged in any way and that sheath cables enter into the back of the consumer unit so that the insulated conductor is not exposed to damage against the edge of the consumer unit³⁸³².

13.3. An inspection of the distribution board, in accordance with the IEE Regulations, would have disclosed the absence of a grommet at the right upper cable knockout³⁸³³. The presence of grommets at cable knockouts is something which the inspector would normally look out for³⁸³⁴ and should identify³⁸³⁵. Although in the case of a congested distribution board it might be difficult to see knockouts, the absence of a grommet strip from the upper right cable knockout in the distribution board in cupboard A2 would have been obvious and should have been identified in the course of an inspection of the board³⁸³⁶.

13.4. An inspection of the distribution board in accordance with the IEE Regulations, would also have spotted that the sheath was not providing protection at the knockout³⁸³⁷. Although this might not be spotted if the red insulation was hidden behind other cables, in the context of the incident distribution board and the way it was wired up, this should have been apparent³⁸³⁸.

³⁸³² Alexander Ross, 28 January 2010, am, pp. 62-63; John Madden, 31 March 2010, am, p. 95, pm, pp. 17-21; David Millar, 1 April 2010, pm, pp. 23-24; Robert Cairney, 2 August 2010, am, pp. 5-6, 14-16.

³⁸³³ Alexander Ross, 28 January 2010, am, p. 63; Stuart Mortimore, 16 March 2010, pm, p. 18; John Madden, 1 April 2010, am pp. 7-8.

³⁸³⁴ Robert Cairney, 2 August 2010, am, pp. 12-13.

³⁸³⁵ David Millar, 1 April 2010, pm, pp. 24-25, 29.

³⁸³⁶ John Madden, 31 March 2010, pm, pp. 19-21; David Millar, 1 April 2010, am, pp. 15-17; Robert Cairney, 2 August 2010, am, pp. 13-14, under reference to Pro 1024D

³⁸³⁷ Alexander Ross, 28 January 2010, am, p. 63; Stuart Mortimore, 16 March 2010, pm, p. 18.

³⁸³⁸ John Madden, 31 March 2010, pm, pp. 26-27, 31-32, under reference to Photograph 13 in Pro 1278, confirmed by Mr. Madden at p. 21 as replicating, so far as he could, the incident distribution board.

13.5. If an electrician undertaking a periodic inspection identified the absence of the grommet, he would, at least note this on the periodic inspection and test report as something which would require to be attended to. Mr Madden would have advised characterizing this deficiency as something requiring urgent remedial action rather than as simply requiring remedial action³⁸³⁹.

13.6. It follows that if the installation had been inspected and tested in accordance with the IEE Regulations, the accident and the deaths might have been avoided.

Note to Chapter 44(2)

As with Chapter 44(1), no objections were offered to the proposed finding provided I was satisfied that the cause of the fire was as submitted by the Crown.

³⁸³⁹ John Madden, 31 March 2010, pm, pp. 21-22; David Millar, 1 April 2010, am, pp. 22-26.

CHAPTER 44(3)(A): PROTECTION OF THE MEANS OF ESCAPE

Reference is made to Chapter 13.

I have made the following findings under RP3.1 – Cupboard Doors.

3.1.1 It would have been a reasonable precaution for the doors to cupboard A2 to have been kept locked shut or at least securely closed.

Had the doors of cupboard A2 been securely closed, the deaths might have been avoided.

3.1.2 It would have been a reasonable precaution to fit fire-resisting doors to cupboard A2.

Had these reasonable precautions been taken, this might have avoided some or all of the deaths.

Introduction

1. It would, for the following reasons, have been a reasonable precaution for the doors of cupboard A2 to have been kept locked shut³⁸⁴⁰ or at least securely closed.

1.1. The cupboard contained: (a) a potential source of ignition (namely, the electrical distribution board and associated equipment); and (b) a substantial quantity of combustible materials³⁸⁴¹.

1.2. The cupboard was located directly on a means of escape. A fire within the cupboard would threaten the means of escape. If a fire broke out of the

³⁸⁴⁰ Colin Todd, 26 July 2010, am, p. 59.

³⁸⁴¹ See Chapter 13 above. For the electrical distribution board as a potential source of ignition, see Chapter 11, paragraphs 8-10.

cupboard into the corridor, this would seriously compromise the means of escape.

1.3. The cupboard was located in a sub-compartment of the Home which housed up to 14 residents, who could, at any given time, be expected to include individuals with high levels of dependency and whose evacuation would present significant challenges³⁸⁴².

1.4. As the BRE work outlined below showed, securely closing the cupboard doors would (subject to the unpredictable effects of any aerosol canisters) significantly slow the fire breaking out into the corridor³⁸⁴³.

1.5. In these circumstances, it would have been a reasonable precaution for those doors to have been kept locked shut³⁸⁴⁴ or in any event securely closed.

2. The importance of keeping flammable materials in secured cupboards was recognized in the Safety Video which advised: “Make sure linen and other potentially flammable materials are stored away from heat sources in locked cupboards”³⁸⁴⁵. It is of note that the main electrical cupboard at Rosepark was always kept locked³⁸⁴⁶. With hindsight, Mr Thomas Balmer accepted that cupboard A2 should have been kept locked³⁸⁴⁷.

The BRE work

BRE Test B

3. BRE undertook a test (Test B) in which a fire was set in a cupboard which replicated cupboard A2 and was stocked so far as possible with similar materials (albeit with a quantity of aerosols on shelf 3), with these differences: that the

³⁸⁴² See Chapter 21 above.

³⁸⁴³ Paragraphs 3-18 of this Chapter.

³⁸⁴⁴ Colin Todd, 26 July 2010, am, p. 59.

³⁸⁴⁵ See Chapter 20, para. 15.

³⁸⁴⁶ Thomas Balmer, 10 May 2010 pm, p. 8.

³⁸⁴⁷ Thomas Balmer, 4 May 2010, pm, p. 67.

cupboard was fitted with fire doors which were closed and latched; and no attempt was made to replicate the ventilation duct³⁸⁴⁸.

4. After more than 20 minutes, the doors remained intact and closed and nothing had been seen outside the cupboard. The doors were opened and effectively the fire had gone out. In this test, none of the aerosols exploded and the fire reached a peak temperature of 100 degrees Centigrade³⁸⁴⁹.

5. Had the doors been ordinary cupboard doors rather than fire doors, as long as these were well fitting and/or fitted with seals, the fire would similarly have gone out³⁸⁵⁰. This test did not, however, replicate the effects of the ventilation duct which would have provided additional oxygen³⁸⁵¹.

BRE Test D

6. Test B was repeated with the exception: (a) that a hole was made in the cupboard to provide a ventilation opening approximately at the location of the duct in cupboard A2; and (b) that no aerosols were placed in the cupboard. The doors (which were fire doors) were latched closed³⁸⁵².

7. The fire developed within the cupboard over an extended period without apparently becoming particularly severe. After more than 40 minutes, the timber providing the latching for the doors failed and the doors fell open, providing additional oxygen for the fire. From early on in the development of the fire, smoke escaped out through the vent³⁸⁵³.

8. Had this test been undertaken with ordinary cupboard doors rather than fire doors it could be expected that:

³⁸⁴⁸ Martin Shipp, 14 April 2010, pm, pp. 27-28.

³⁸⁴⁹ Martin Shipp, 14 April 2010, pm, pp. 28-32

³⁸⁵⁰ Martin Shipp, 14 April 2010, pm, pp. 33-34.

³⁸⁵¹ Stuart Mortimore, 17 March 2010, am, pp. 61-62.

³⁸⁵² Martin Shipp, 14 April 2010, pm, pp. 42-44

³⁸⁵³ Martin Shipp, 14 April 2010, pm, pp. 43-48

8.1. More oxygen would have been available, through the gaps around the doors; and

8.2. The doors would have burned through much sooner³⁸⁵⁴.

9. The presence of any aerosols could also have had an effect, particularly if they were to explode, by disrupting or opening the doors³⁸⁵⁵.

BRE Test 4

10. Test 4 in the series investigating the ventilation ductwork investigated the efficacy of ordinary cupboard doors (as opposed to fire doors). Aerosol canisters were placed in the cupboard. The cupboard was connected to the ventilation system and the fan was operated for the first six minutes from ignition before being switched off. The cupboard doors (which, as at Rosepark, were ordinary cupboard doors and not fire doors) were latched closed. Despite two explosions of aerosol cans, flames did not escape through the cupboard doors until 12 minutes 20 seconds after ignition³⁸⁵⁶. It may be, however, that the doors at Rosepark were not as tightly fitting as those used in this test, in which case they would have been breached sooner³⁸⁵⁷.

Aerosols

11. If the cupboard contained aerosols (as the cupboard at Rosepark did³⁸⁵⁸), and these became involved in the fire (as some of those in the cupboard at Rosepark did³⁸⁵⁹), this would have various potential consequences.

11.1. The pressure increase caused by an exploding aerosol could cause the doors to fail, although they could have remained secure³⁸⁶⁰.

³⁸⁵⁴ Martin Shipp, 14 April 2010, pm, pp. 48-49

³⁸⁵⁵ Martin Shipp, 14 April 2010, pm, pp. 49-51

³⁸⁵⁶ Martin Shipp, 15 April 2010, am, pp. 53-59.

³⁸⁵⁷ Stuart Mortimore, 17 March 2010, am, p. 63.

³⁸⁵⁸ Chapter 13, para. 22.

³⁸⁵⁹ Chapter 34.

³⁸⁶⁰ Stuart Mortimore, 17 March 2010, am, p. 64-72, 78-79.

11.2. If the doors did not fail, an aerosol explosion could accelerate the rate of oxygen depletion and lead to the fire burning itself out more quickly³⁸⁶¹.

11.3. The pressure from the aerosols could force the fire into the ventilation ductwork. The ductwork would be liable to melt, allowing fire to enter the ceiling void. However there were relatively few combustible materials within the void, and in the BRE tests at Garston the ductwork remained intact³⁸⁶².

Conclusions from the BRE work

12. Because cupboard A2 was connected to the ventilation system, a fire would have been able to develop within the cupboard even if the doors had been closed³⁸⁶³. This is demonstrated by comparing BRE Test B³⁸⁶⁴ with BRE Tests D and 4³⁸⁶⁵.

13. The closing of the cupboard doors would however (subject to the possible – and unpredictable effects – of aerosol canisters) have materially delayed the fire breaking out into the corridor³⁸⁶⁶. This would provide additional time:

13.1. for staff to identify the fire;

13.2. for staff to close other bedroom doors; and

13.3. (assuming that a prompt 999 call had been made) for the Fire Service to arrive and deal with the fire.

14. On the basis of BRE Test 4 (allowing for the period before the fire reached the stage of two number 7 cribs), had the cupboard had ordinary cupboard doors (subject to the effects of any aerosol canisters), it would have taken some 14 or 15 minutes from the fire alarm before the fire broke out of the cupboard. An additional 10 minutes or so would have been bought for the various actions mentioned above.

³⁸⁶¹ Stuart Mortimore, 17 March 2010, am, pp. 73-74.

³⁸⁶² Stuart Mortimore, 17 March 2010, am, pp. 74-75.

³⁸⁶³ Stuart Mortimore, 17 March 2010, am, pp. 62, 73-73; Martin Shipp, 15 April 2010, am, pp. 67-68.

³⁸⁶⁴ Paragraphs 3-5 above.

³⁸⁶⁵ Paragraphs 6-10 above.

³⁸⁶⁶ Stuart Mortimore, 17 March 2010, am, pp. 93-84, 87-90, 99-100.

15. On the basis of BRE Test D, had the cupboard doors been fire-resisting doors, a significantly extended period – over half an hour - would (subject to the effects of any aerosol canisters) have elapsed before the fire broke out of the cupboard.

16. In addition to these benefits, had the doors to the cupboard been securely closed, the quantity of smoke and toxic gases which would have been generated by the fire would have much less than those generated during the actual incident³⁸⁶⁷.

17. An exploding aerosol can could have ruptured the secured doors of the cupboard (whether those were fire-resisting doors or not) within the extended period. However, the response of aerosols to a fire is unpredictable. As seen in BRE Test 4, even if aerosol cans were to rupture and explode, this would not necessarily result in the fire breaking out of the cupboard if the doors were properly secured³⁸⁶⁸.

18. It follows that had the cupboard doors been securely closed and locked this might have avoided some or all of the deaths.

Determination that fire-resisting doors should have been fitted to cupboard A2

19. Given the following circumstances, it would have been a reasonable precaution for the cupboard to have been fitted with fire-resisting doors.

19.1. The cupboard contained: (a) a potential source of ignition (namely, the electrical distribution board and associated equipment); and (b) a substantial quantity of combustible materials³⁸⁶⁹.

19.2. The cupboard was located directly on a means of escape. A fire which broke out of the cupboard would seriously compromise the means of escape³⁸⁷⁰.

³⁸⁶⁷ Stuart Mortimore, 17 March 2010, am, pp. 76-77, 81.

³⁸⁶⁸ Martin Shipp, 15 April 2010, am, pp. 68-69.

³⁸⁶⁹ See above, paragraph 1.1.

³⁸⁷⁰ See above, paragraph 1.2.

19.3. The cupboard was located in a sub-compartment of the Home which housed up to 14 residents, who could, at any given time, be expected to include individuals with high levels of dependency and whose evacuation would present significant challenges³⁸⁷¹.

19.4. The cupboard was connected to the ventilation system. As the BRE work outlined above demonstrated, this meant that, even with well-fitting doors, there would be a continuing source of oxygen such that a fire would not burn itself out³⁸⁷².

19.5. As the BRE work outlined above showed: (a) securely closing the cupboard doors would (subject to the unpredictable effects of any aerosol canisters) significantly slow the fire breaking out into the corridor; and (b) if the doors were fire-resisting, the additional time thereby bought for responding to the emergency would be very significantly prolonged³⁸⁷³.

19.6. Fire Safety: An Employer's Guide³⁸⁷⁴ provided that stocks of office stationery and supplies and flammable cleaner's materials should be kept in separate cupboards and stores and if they open onto a corridor or stairway escape route, they should be "fire-resisting with a lockable or self-closing fire door".

19.7. In these circumstances, in order to protect the means of escape, it would have been reasonable for the cupboard to have been fitted with fire resisting doors³⁸⁷⁵.

20. BRE Test D showed the benefit (subject to the unpredictable effects of aerosols) of fitting fire-resisting cupboard doors. It took the fire more than 30 minutes longer to break out of the cupboard than was the case in the actual incident at Rosepark. This would have provided very significant additional time for staff to identify the fire, to

³⁸⁷¹ See above, paragraph 1.3.

³⁸⁷² See above, paragraph 12.

³⁸⁷³ See above, paragraphs 13-17 above.

³⁸⁷⁴ Pro 1120, p. 35; David Charters, 20 July 2010, pm, pp. 16-21..

³⁸⁷⁵ Colin Power, 11 June 2010, pm, pp. 71-72; Colin Todd.

close other bedroom doors and, assuming that a 999 call was made, for the Fire Service to arrive and deal with the fire.

21. It follows that, had the doors to the cupboard been fire-resisting, as well as being securely closed, this might have avoided some or all the deaths.

Note to Chapter 44(3)(A)

No issue was taken with this proposal on behalf of the Balmer Partnership. The proposal is endorsed by the Care Commission. There are no further submissions.

CHAPTER 44(3)(B): PROTECTION OF THE MEANS OF ESCAPE - BEDROOM DOORS

Reference is made to Chapters 15 and 29.

I have found at RP3.2:

It would have been a reasonable precaution for all bedroom doors to have been closed in the event that a fire alarm sounded. In particular it would have been a reasonable precaution for the management of Rosepark to have fitted devices to ensure that bedroom doors were closed automatically in the event that the fire alarm sounded.

Had the residents in the rooms in corridor 4 apart from rooms 10 and 11 had their doors closed, their deaths might have been avoided. If the bedroom doors in corridor 3 of Isabella MacLachlan and Margaret Gow had been closed, their deaths might have been avoided.

General

1. In the event of a fire breaking out, having the bedroom doors closed is an important aspect of maintaining the integrity of means of escape³⁸⁷⁶.

1.1. In the event that a fire breaks out within a bedroom (which is much more common in care homes than fires on the means of escape itself), it is essential that this is prevented from spreading out into the corridor where it will affect the means of escape and may spread into other rooms³⁸⁷⁷.

1.2. In the event that a fire breaks out on the corridor, having the bedroom doors closed:

³⁸⁷⁶ Martin Shipp, 15 April 2010, am, pp. 137-138.

³⁸⁷⁷ Colin Todd, 26 July 2010, am, pp. 60-61.

1.2.1. Provides significant protection (even if the doors are not fire-rated) against the effects of temperature and toxic gases.

1.2.2. Limits the oxygen available to the fire.

These propositions were vouched by the BRE work, detailed below.

2. Having a closed bedroom door, as compared with an open bedroom, involves a “step change” in fire safety³⁸⁷⁸.

3. The importance of keeping bedroom doors closed for reasons of fire safety has been known since before Rosepark was constructed.

3.1. The design of Rosepark included Perko door closers on the bedroom doors. Mr Dickie had told Mr Balmer that “it would be a requirement to have the closing device fitted to the door for safety” and Mr Balmer understood that this was because it “created inherency of fire protection within that room”³⁸⁷⁹.

3.2. Mr McNeilly insisted that the Perko door closers be replaced by overhead door closers. Mr McNeilly told Mr Balmer that this was an aspect of protecting the means of escape³⁸⁸⁰.

3.3. An early resident contract for Rosepark stated, under the heading “Smoking and Fire Regulations”: “Residents are required to keep their bedroom doors closed and not jam them open”³⁸⁸¹.

3.4. The Fire Safety Video used at Rosepark emphasized the importance of keeping bedroom doors closed³⁸⁸².

³⁸⁷⁸ Colin Todd, 27 July 2010, am, pp. 45-46.

³⁸⁷⁹ Thomas Balmer, 29 April 2010, am, pp. 90-91.

³⁸⁸⁰ Thomas Balmer, 29 April 2010, am, pp. 91-94.

³⁸⁸¹ Pro 816, p. 29; Thomas Balmer, 29 April 2010, am, pp. 94-96.

³⁸⁸² Chapter 19, para. 15.

4. A situation in which all the bedroom doors were closed in the event of a fire alarm at night could have been achieved:-

4.1. By insisting that all bedroom doors were kept closed throughout the night;
or

4.2. By having in place arrangements whereby all bedroom doors would be closed in the event that the fire alarm sounded.

5. In the context of a nursing home, there are valid reasons for not insisting that all bedroom doors be kept closed at night:-

5.1. In the case of some residents, there are medical or nursing reasons for leaving bedroom doors open³⁸⁸³. Mrs McWee, for example, suffered from Charles Bonnet syndrome, and for this medical reason required to have her bedroom door open.

5.2. A Care Home is the resident's home and, other things being equal, a resident may reasonably wish to make a choice to have his or her door open or ajar at night³⁸⁸⁴.

6. It is not, however, an adequate or sufficient approach, to say that it is the resident's "right" to have his or her door open³⁸⁸⁵.

6.1. In the first instance, there is a question of informed consent – that a Home which took that approach would require to discuss with the resident or the resident's relatives, the fire safety implications of leaving the bedroom door open³⁸⁸⁶. Ms Meaney's view was that the implications should have been a matter of discussion with the resident (or the resident's relatives)³⁸⁸⁷. But there is no evidence that such discussions were in fact had, and, although there were

³⁸⁸³ Sadie Meaney, 22 February 2010, pm, pp. 82-87.

³⁸⁸⁴ Anne Jarvie, 21 July 2010, am, pp. 102-105

³⁸⁸⁵ Colin Todd, 27 July 2010, am, pp. 46-50.

³⁸⁸⁶ Anne Jarvie, 21 July 2010, am, pp. 102-108

³⁸⁸⁷ Sadie Meaney, 22 February 2010, pm, pp. 86-90.

in the Care Plans a questionnaire setting out each resident's preferences in relation to various matters and an individual risk assessment, neither of these addressed the question of leaving bedroom doors open³⁸⁸⁸.

6.2. More fundamentally, to accede to a request by a resident to that effect would put other residents at risk. The issue accordingly comes to be squarely one which management, which has a responsibility for the safety of all the residents, has to address as a matter of policy and procedure³⁸⁸⁹.

7. The Green Guide had referred to the need for staff to be given instruction and training in the "need to close all doors at the time of a fire and on hearing the fire alarm"³⁸⁹⁰.

8. The guidance available at the time of the fire did not consistently recommend that bedroom doors should be fitted with closers³⁸⁹¹.

8.1. HTM 84 stated³⁸⁹²:

"In medium and large premises all bedrooms (staff and resident) should be fully enclosed in construction which offers 30 minutes fire resistance.

...

Notes

The fire resisting enclosure will be formed by the walls, doors and the ceiling (unless the walls are taken up to the underside of the roof).

Doors should be FD30S, but they do not need to be fitted with an automatic self-closing device."

The philosophy of the document was expressed thus³⁸⁹³:

"Residential care premises are home for many people. Therefore, in providing an acceptable level of fire safety, there should be a recognition of the need to provide a homely non-institutionalised environment. This document attempts to achieve this by considering the full

³⁸⁸⁸ Sadie Meaney, 22 February 2010, pm, pp. 90-92.

³⁸⁸⁹ Anne Jarvie, 21 July 2010, am, pp. 106-107.

³⁸⁹⁰ Pro 1378, para. 5.2; David Charters, 20 July 2010, am, pp. 81-82

³⁸⁹¹ Colin Todd, 27 July 2010, am, pp. 23-24.

³⁸⁹² Pro 1436, p. 36; Martin Shipp, 16 April 2010, am, 14-15; Colin Todd, 27 July 2010, am, pp. 24-25

³⁸⁹³ Pro 1436, p. 7; Martin Shipp, 16 April 2010, am, pp. 16-17.

range of issues which affect fire safety in residential care premises ... In order to maintain a homely and non-institutional atmosphere, precautions should be introduced carefully, taking account of any possible adverse effects on the quality of residents' lives and the care that they receive. For example, a self-closing door, which is a useful protection in the event of a fire may be an inconvenience to the elderly or even cause an accident if care is not taken with its location."

The same approach was taken in *Fire Safety in Residential Care Premises: a Good Practice Guide to Fire Safety in Residential Care Premises in England and Wales*, published by the Institute of Building Control, which was based on HTM 84³⁸⁹⁴.

8.2. SHTM 84 stated³⁸⁹⁵:

Requirement

All bedrooms must comply with the requirements for sub-compartmentation of part D of the Technical Standards"

Notes

The fire resisting enclosure will be formed by the walls, doors and the ceiling, unless the walls are taken up to the underside of the roof.

Doors to the corridor should provide the same level of fire safety performance as the wall, as described in Technical Standard D1.3 and be fitted with an automatic self-closing device with a "swing free" arm and activated by the operation of the detection and alarm system."

8.3. Christian, *Fire Safety in Care Homes for Older People and Children*, contained the following advice³⁸⁹⁶:

"In residents' bedrooms the doors should not be provided with self-closing devices as they can impede resident evacuation from the bedroom in a fire emergency. Also difficulty has been experienced in a number of homes where the residents have objected to the doors to their rooms being fitted with self-closing devices. With many elderly people their discomfort at being shut in their own rooms divorced from their surroundings has led to the practice of such doors being wedged open. The constant and daily contact between the residents is an essential part of life for

³⁸⁹⁴ Colin Todd, 27 July 2010, am, pp. 27-29

³⁸⁹⁵ 3rd edn, Pro 1434, p. 27; Martin Shipp, 16 April 2010, am, pp. 13-14; Colin Todd, 27 July 2010, am, pp. 29-30.

³⁸⁹⁶ Colin Todd, 27 July 2010, am, pp. 31-34

such people and they should not be deprived of this pleasure. Enforcement authorities should therefore be mindful of residents' needs and where possible should try and find other means, i.e. additional doors in corridors, to provide smaller protected areas to provide reasonable fire safety. Recent determinations by the Secretary of State took the view that with the exception where such bedroom doors discharged into a common area with other public rooms, i.e. day rooms, dining rooms, individual bedroom doors did not have to be fitted with self-closing devices.”

9. The guidance in HTM 84 should not be understood to imply that doors should not be closed in the event of fire breaking out³⁸⁹⁷. The thinking was that it would be more reliable to rely on staff action to close doors either generally at night time or on an alarm going off: self-closers, if fitted, would tend to be neutralized because they conflicted with an element of the function of the building³⁸⁹⁸. The provisions of HTM 84 in relation to door closers should be read along with the provisions recommending annual training and drills twice a year, which should include training in the importance of closing doors³⁸⁹⁹.

10. In the event that bedroom doors were to be left open at night, it was essential from the point of view of fire safety to minimize the risk – and in particular to ensure that steps be taken to ensure that such doors were closed in the event that the fire alarm sounded. This could be done in one or other of the following ways:-

10.1. Members of staff could close all doors in the event that the fire alarm sounded³⁹⁰⁰; or

10.2. The doors could be fitted with mechanisms which would close them automatically in the event that the fire alarm sounded.

11. At all relevant times there were available in the market a number of technological solutions to the apparent conflict between fire safety and other demands, devices which could have been fitted to the bedroom doors in order to make sure that they would be closed should the fire alarm sound³⁹⁰¹.

³⁸⁹⁷ Colin Todd, 27 July 2010, am, pp. 25-26.

³⁸⁹⁸ David Charters, 20 July 2010, am, pp. 84-87.

³⁸⁹⁹ David Charters, 20 July 2010, am, pp. 87-88

³⁹⁰⁰ Martin Shipp, 15 April 2010, am, pp. 137-139; David Charters, 20 July 2010, am, p. 88.

³⁹⁰¹ Colin Todd, 26 July 2010, pm, pp. 94-95

11.1. A magnetic hold-open device linked to the fire alarm system can be used to hold open bedroom doors fitted with overarm door-closers, releasing them in the event of the alarm sounding. This was the type of mechanism used on the corridor fire doors at Rosepark at the time of the fire³⁹⁰².

11.2. A swing-free device allows the door to be used freely, and in particular left open at any angle, but operates to close the door in the event that the fire alarm operates. These devices first became available in the early 1980s. The installation of such devices would be relatively straightforward. It would require an electrical circuit to be run through the building and connected to the relay on the fire alarm control panel in the same way as the existing corridor fire doors were connected to the panel. It would not require any change to the fire alarm system itself. The devices themselves were relatively expensive, perhaps £250-£300 per device plus the installation costs³⁹⁰³.

11.3. An acoustically linked door hold open device (with the proprietary name “Dorgard”) was available. Dorgard is a battery-operated device which is fitted to the bottom of the door, and holds it open using a foot-operated plunger. In the event of any high noise level persisting for a short period of time (such as the fire alarm), the plunger retracts allowing the door (which is fitted with a self-closing device) to close. These devices are easily installed (being fitted to the door with screws in about five minutes), and can hold the door open at any angle. They require no other modifications. The cost of each unit was in 2003 about £80. However they have some disadvantages: they may respond to other noises; there might at least in the early stages of use of the product, be situations, depending on the floor surface, in which the device would not hold the door open or would stick; they depended on the sound level of the fire alarm being adequate. They were first introduced to the market in 1996 and initially were controversial. In 1998 the Chief and Assistant Chief Fire Officers Association issued guidance that the device should be regarded as acceptable

³⁹⁰² Colin Todd, 26 July 2010, pm, pp. 95-96.

³⁹⁰³ Martin Shipp, 15 April 2010, am, pp. 132-133; Colin Todd, 26 July 2010, pm, pp. 97-100, 27 July 2010, am, pp. 1-12.

subject to checking that the audibility level of the fire alarm at each location of use was sufficient and this was re-affirmed in 2003³⁹⁰⁴.

12. The use of any such device would require to be properly considered along with other fire precautions through a process of risk assessment. So, for example, an acoustic device depends on the fire alarm sounding sufficiently loudly at all locations immediately upon the system being activated³⁹⁰⁵. It would not be safe to rely on such devices to the exclusion of staff taking action to make sure that all doors are in fact closed in the event of the alarm sounding, since something could be placed in front of the door which would stop it closing³⁹⁰⁶.

13. A Care Home might, in principle, adopt a strategy which relied solely on the action of staff to close bedroom doors in the event of a fire. There would be some advantages to such a strategy, namely it can be done in conjunction with an investigation of the relevant area; and it avoids the risk of a technological device failing³⁹⁰⁷. A Care Home adopting such a strategy would, however, require to address itself seriously to the training and drilling of staff in that regard³⁹⁰⁸ and, indeed, potentially, to whether the number of staff on duty at any time would be sufficient to ensure that this action would be taken.

14. Experience tends to show that a key underlying feature in fire disasters is a failure of fire safety management and the response of people in the event of fire. Accordingly, it is desirable, so far as possible, to adopt measures which do not depend on human action³⁹⁰⁹. In the present context, the conclusion to be drawn is that it would not, generally, be desirable to rely solely on staff acting, or being able to act, correctly in an emergency and, wherever possible, door closing devices should be fitted³⁹¹⁰. Staff in an emergency will have a number of activities to undertake and will have to take difficult decisions about the deployment of their own resources. The

³⁹⁰⁴ Martin Shipp, 15 April 2010, am, pp. 133-137; Colin Todd, 27 July 2010, am, pp. 12-23.

³⁹⁰⁵ Martin Shipp, 15 April 2010, am, pp. 134-135.

³⁹⁰⁶ David Charters, 20 July 2010, am, p. 90.

³⁹⁰⁷ Martin Shipp, 15 April 2010, am, pp. 139-140.

³⁹⁰⁸ David Charters, 20 July 2010, am, pp. 87-88.

³⁹⁰⁹ Colin Todd, 27 July 2010, am, p. 36-40.

³⁹¹⁰ Martin Shipp, 15 April 2010, am, pp. 139-140; pm, pp. 8-10; Anne Jarvie, 21 July 2010, am pp. 111-112.

circumstances of a particular fire might make it difficult for staff to close doors. And a system which relies on staff action alone is susceptible to the risk of human error³⁹¹¹.

15. It would, accordingly, have been a reasonable precaution for the management at Rosepark to have fitted devices of the sort mentioned above to ensure that bedroom doors were closed in the event that the fire alarm was activated. This was accepted by Mr Balmer³⁹¹², and was indeed done, both at Rosepark and at Croftbank following the fire³⁹¹³.

Had all the bedroom doors been closed, the deaths, or some of them, might have been avoided.

Corridor 4

16. Had all the bedroom doors in corridor 4 been closed:-

16.1. Each door would have provided a barrier to the effects of asphyxiant gases and heat within the relative bedroom³⁹¹⁴.

16.2. The fire would have become extinguished more rapidly by reason of exhaustion of the oxygen in the corridor³⁹¹⁵.

These propositions are justified on the basis of evidence from the BRE work set out in paragraphs 17-20 below. The significant effects of a bedroom door being closed is, in any event, apparent from the photographic evidence, which discloses significant heat and smoke damage in bedrooms in corridor 4 where the bedroom doors were open, while the photographs of Mrs Burns' room shows minimal apparent damage³⁹¹⁶. It is also noteworthy that, whereas residents of rooms where the doors were open died in the fire, Mrs Burns and Mrs MacLeod, whose doors were closed, were at least rescued alive. Given that Mrs Burns and Mrs MacLeod both later died, one cannot necessarily

³⁹¹¹ Colin Todd, 27 July 2010, am, p. 40.

³⁹¹² Thomas Balmer, 10 May 2010, pm, pp. 32-33.

³⁹¹³ Alan Balmer, 4 June 2010, am, p. 93.

³⁹¹⁴ Martin Shipp, 13 April 2010, p. 101.

³⁹¹⁵ Martin Shipp, 13 April 2010, p. 101.

³⁹¹⁶ For the status of the various bedroom doors, see Chapter 29 above.

conclude that residents of corridor 4 would have survived if their bedroom doors had been closed. The question of whether or not the closing of those bedroom doors would in fact have prevented any of the deaths in corridor 4 would no doubt have depended among other things on: (a) the effect of the more rapid extinction of the fire (due to the closing of all the bedroom doors) on the overall exposure of the residents to toxic fire gases; and (b) the speed of rescue. But it would be reasonable to conclude that had all the bedroom doors of residents in corridor 4 been closed those residents might have survived.

Evidence from BRE Test 1

17. In BRE Test 1:-

17.1. There was a marked difference in the temperatures recorded in room 11 (which had a closed door) and room 15 (which had an open door). This was attributable to the presence of the door³⁹¹⁷. The temperatures in room 11 never, during the test, exceeded 30 degrees Celsius even at a high level within the room.

17.2. There was a very marked difference in the gas measurements taken in room 11 and room 15. This may be seen strikingly by contrasting pp. 161 and 162 of Pro 1458.

As Professor Purser put it in relation to room 11 with a closed door³⁹¹⁸, “The temperature also has barely risen above ambient temperature so there’s no heat stress to an occupant of that room [i.e. room 11 with a closed door]. The door is providing really good protection from the gases in the corridor.”

³⁹¹⁷ Stuart Mortimore, 17 March 2010, am, pp. 100-101; Martin Shipp, 14 April 2010, am, pp. 52-53.

³⁹¹⁸ David Purser, 14 June 2010, am, pp. 107-108.

Evidence from BRE Test 3

18. The BRE undertook a full reconstruction (Test 3) which replicated Test 1 with the exception that each of the bedrooms was fitted with half hour fire resisting doors which were closed³⁹¹⁹.

18.1. In corridor 4, peak temperatures of 800 degrees Centigrade were shown near room 8, 424 degrees near room 15, and 610 degrees near room 17³⁹²⁰. There was however substantially less damage to the elements within the corridor than was observed in Test 1: this was because the reduced amount of oxygen limited the amount of heat produced by the fire and the spread of flames into the corridor³⁹²¹.

18.2. Within the bedrooms off corridor 4 (which all had closed doors) (with the exception of one room where anomalous readings were obtained) ceiling temperatures reached only 21 degrees Centigrade and nose height temperatures only 20 degrees Centigrade³⁹²². There was virtually no penetration of asphyxiant gases into these rooms³⁹²³.

19. Had ordinary bedroom doors been used rather than fire-rated doors:

19.1. As long as the door to any bedroom was not breached by the fire, it would have provided significant protection (though not as great protection as a smoke sealed door) to the room behind from the effects of heat and asphyxiant gases. The effects could be expected to be similar to those seen in room 11 in Test 1³⁹²⁴.

19.2. The fire in the corridor would also have been very much more limited than the fire in Test 1 (or the fire at Rosepark) - although not as limited as was seen in Test 3 because some additional oxygen would be available to the fire in the

³⁹¹⁹ Martin Shipp, 14 April 2010, am, pp. 123-127.

³⁹²⁰ Martin Shipp, 14 April 2010, am, pp. 133-34.

³⁹²¹ Martin Shipp, 14 April 2010, am, pp. 136-142.

³⁹²² Martin Shipp, 14 April 2010, am, p. 134.

³⁹²³ Martin Shipp, 14 April 2010, am, pp. 135-6, 150-152.

³⁹²⁴ Martin Shipp, 14 April 2010, am, pp. 149-150, 15 April 2010, am, pp. 91-92. .

corridor through gaps between the doors and the doorframes, and it would have been possible that doors in the vicinity of the fire would have been breached³⁹²⁵.

BRE fire resistance test on ordinary bedroom doors

20. The BRE undertook a standard fire resistance test on an ordinary bedroom door such as the doors at Rosepark and on a fire-rated door, situated side by side. The two doors were exposed to heat created by a standard fire test furnace. This did not seek to replicate the effects of a real fire, but provided some assistance in understanding the different performance of a fire-rated door and an ordinary bedroom door. It disclosed that an ordinary bedroom door would not become breached by the effects of fire for a period of time, albeit significantly less time than in the case of a fire-resisting door³⁹²⁶. This evidence supports the finding reported at paragraph 19.1 above.

Corridor 3

21. It may reasonably be concluded that had the bedroom doors of Isabella MacLachlan and Margaret Gow been closed they would have survived with minimal, if any, injury³⁹²⁷. The level of exposure to toxic gases in a closed room in corridor 3 was very low - perhaps around 8-14%, around the level that a heavy smoker might attain without obvious ill-effects. On being rescued, the residents of such rooms would have been exposed to a smoky corridor for a short period of time, perhaps adding an additional 2-3% carboxyhaemoglobin, giving a predicted total level of around 10-17%³⁹²⁸. The position of Isabella MacLachlan and Margaret Gow, had their bedroom doors been closed, would have been equivalent to that of Mary Dick, the one resident of corridor 3 whose door was certainly closed, and who did not, so far as can be ascertained, require any medical treatment following the fire³⁹²⁹.

³⁹²⁵ Martin Shipp, 14 April 2010, am, pp. 142-147.

³⁹²⁶ Martin Shipp, 15 April 2010, am, pp. 88-105

³⁹²⁷ David Purser, 15 June 2010, am, pp. 80, 102-103

³⁹²⁸ David Purser, 15 June 2010, am, pp. 82-83, 88, 95-97.

³⁹²⁹ David Purser, 15 June 2010, am, p. 80; Christine Young, 11 August 2010, am, pp. 2-5.

Conclusions

Corridor 4

22. If the bedroom doors in corridor 4 had been closed (and had not been breached), the conditions observed in room 11 in BRE Test 1 would have been replicated in all the bedrooms and the conditions might have been better than were observed in room 11 in BRE Test 1³⁹³⁰.

23. The bedroom doors, if they had all been closed, would have withstood the fire in the corridor for a period sufficient for the fire to die back from lack of air, such that fire penetration into the bedrooms would not, in the absence of some exceptional circumstances causing flame impingement directly on the door, have occurred³⁹³¹.

24. Given that the two residents in Corridor 4 who had closed doors did not, ultimately, survive, it cannot be said with certainty that any of the residents in this corridor would have survived even if their doors had been closed. However, closing the doors on its own would have made a significant difference to their prospects and might have avoided the deaths. If the residents of these rooms had also been rescued more quickly, this would have further enhanced their prospects of survival.

Corridor 3

25. If the bedroom doors of Isabella MacLachlan and Margaret Gow had been closed, it may be concluded, in terms of section 6(1)(c) of the 1976 Act, that they might have survived³⁹³².

³⁹³⁰ Martin Shipp, 15 April 2010, am, pp. 104-105.

³⁹³¹ Martin Shipp, 15 April 2010, am, pp. 105-108.

³⁹³² Paragraph 21 above.

Note to Chapter 44(3)(B)

It was accepted on behalf of the Balmer Partnership that this could now be seen to have been a reasonable precaution. Their evidence was that this was now the case at both Rosepark and Croftbank following the fire.

There were no submissions to the effect that this was not an appropriate finding.

**CHAPTER 44(3)(C): PROTECTION OF THE MEANS OF ESCAPE -
FITTING SMOKE SEALS TO BEDROOM DOORS**

I have found at RP3.3:

- 1. It would have been a reasonable precaution to have fitted smoke seals to bedroom doors.**
- 2. Had this precaution been taken the deaths of Robina Burns and Isabella MacLeod might have been avoided.**

It would have been a reasonable precaution to have fitted smoke seals to bedroom doors

1. A smoke seal is a rubber-based flexible seal that is fitted in the leaf or the frame of a door to prevent any air flow across the gap between the leaf and the frame³⁹³³.
2. It would be a straightforward job to fit a smoke seal to an existing door frame. The seal comes with an adhesive strip. Once the backing paper had been peeled off the strip could simply be fitted into place. This would not require any specialist expertise³⁹³⁴.
3. Smoke seals were available before the fire in January 2004. HTM 84 specified that bedroom doors should be “FD30S”, which implied that they should have 30 minutes fire resistance and also be fitted with smoke seals³⁹³⁵. The designs for the proposed new nursing unit at Rosepark for which warrant was sought in 1999, specified that the bedroom doors should be “self-closing smoke stop firedoors”.
4. Smoke seals were very inexpensive items³⁹³⁶.

³⁹³³ Christopher Miles, 2 August 2010, am, p. 94.

³⁹³⁴ Christopher Miles, 2 August 2010, am, p. 98.

³⁹³⁵ Martin Shipp, 16 April 2010, am, p. 15.

³⁹³⁶ Christopher Miles, 2 August 2010, am, pp. 97-98.

5. Mr. Todd explained that, in the context of the discussion which a risk assessor would have about the time for evacuation of residents and the protection of escape routes, the risk assessor would consider upgrading the bedroom doors to fire-resisting doors and the fitting of smoke seals³⁹³⁷.

Had this precaution been taken, the deaths of Robina Burns and Isabella MacLeod might have been avoided.

6. Robina Burns' bedroom had very substantial protection from the effects of heat and asphyxiant gases, simply by reason of the fact that the bedroom door was closed. However, some asphyxiant gases were able to penetrate the room through the gaps between the door and the doorframe. Had there been a smoke seal, there would have been effectively no such penetration.

7. The benefits of a smoke seal in this regard may be illustrated by comparing the measurements taken in room 11 in the BRE Tests 1 and 3. In Test 1 there was a closed ordinary bedroom door, and there was some leakage of asphyxiant gases into the room through the gaps between the door and the doorframe. In Test 3 the room was fitted with a fire door with a smoke seal, and there was effectively no penetration of asphyxiant gases into the room³⁹³⁸.

8. Accordingly, had there been a smoke seal on Mrs. Burns' bedroom door, she would have sustained effectively no exposure prior to being evacuated by the fire services. In that event she might well have survived.

9. So far as Mrs. MacLeod is concerned, the same analysis applies, subject to the possibility that her door was penetrated at some point in the fire.

Note to Chapter 44(3)(C)

There were no submissions to the contrary.

³⁹³⁷ Colin Todd, 27 July 2010, am, pp. 91-92.

³⁹³⁸ Martin Shipp, 14 April 2010, am, pp. 148-152, pm, pp. 83-84; 15 April 2010, am, pp. 91-92.

CHAPTER 44(3)(D): PROTECTION OF THE MEANS OF ESCAPE - STORAGE OF COMBUSTIBLE MATERIALS (INCLUDING AEROSOLS)

Reference is made to Chapters 13 and 34.

I have found at RP3.4:

It would have been a reasonable precaution to minimize the storage of combustible materials in cupboard A2. In particular, it would have been a reasonable precaution not to store a quantity of aerosols within cupboard A2.

Had this precaution been taken, some or all of the deaths might have been avoided.

1. A fire involving substantial non-hazardous combustible (such as cardboard, disposable aprons, toys etc) can become very severe³⁹³⁹.
2. It follows that the management of a Care Home should seek to minimize the storage of quantities of such combustibles, particularly where they might affect escape routes³⁹⁴⁰. This applies not only to storage on the escape route itself, but also to storage in a cupboard off an escape route³⁹⁴¹.
3. Aerosols, provided they are undamaged, are a generally safe means of storing volatile materials. However:-
 - 3.1. If an aerosol is stored in damp conditions and corrodes, the contents may escape, creating a flammable environment and causing fire or explosion³⁹⁴².

³⁹³⁹ Martin Shipp, 15 April 2010, am, pp. 117-118.

³⁹⁴⁰ Martin Shipp, 15 April 2010, am, pp. 118-119.

³⁹⁴¹ Martin Shipp, 15 April 2010, am, pp. 128-130.

³⁹⁴² Martin Shipp, 16 April 2010, am, pp. 82-83.

- 3.2. The potential destructive power of an explosion resulting from the release of the contents of an aerosol is great. The explosion of a single aerosol is capable of causing serious structural damage³⁹⁴³.
4. The expert evidence would not support a ban on the use of aerosols in Care Homes. For example, from a fire safety point of view, Mr. Shipp would not have concerns about individual residents keeping aerosols in their rooms as such, provided that this was appropriately managed: (a) to limit the number of aerosols to one or two; and (b) to ensure that the aerosols were being looked after in an appropriate manner, and in particular kept away from a heat source or other source of ignition³⁹⁴⁴.
5. Mr. Shipp would not have regarded an electrical distribution board as a source of ignition in this regard, at least provided it had been properly installed and maintained³⁹⁴⁵ and this view was concurred in by other experts³⁹⁴⁶. The proviso is plainly critical, as is the expectation that aerosols should have been looked after in a proper manner. As evidence to this inquiry shows, an electrical distribution board, if it has not been properly maintained, can be a source of ignition. Furthermore a distribution board, in its ordinary operation, is a potential source of ignition in the event that a flammable atmosphere is present and, as the evidence to this inquiry has shown, it is possible for an aerosol which has not been properly looked after to release its contents creating a flammable atmosphere.
6. It is necessary to keep in mind that the particular issue in relation to cupboard A2 was its location on an escape route and the risk which a fire in that cupboard, accordingly, presented to the means of escape. There is ample evidence in the BRE work to show that, in the event of a fire in a cupboard such as cupboard A2, even if the doors to the cupboard had been fire-resisting and locked shut, the presence of aerosols would have added significantly – if unpredictably – to the danger of the fire breaking out of the cupboard. Aerosols would, if they became involved in the fire,

³⁹⁴³ Martin Shipp, 16 April 2010, am, pp. 81-82.

³⁹⁴⁴ Martin Shipp, 16 April 2010, am, pp. 108-111.

³⁹⁴⁵ Martin Shipp, 16 April 2010, am, pp. 111-116.

³⁹⁴⁶ John Madden; Colin Todd, 28 July 2010, am, p. 116; but see Colin Power, 11 June 2010, pm, pp. 70-71. .

create a source of serious danger both for staff or professional fire fighters engaged in fire fighting, and for personnel engaged in evacuation activities in the corridor.

7. HTM 84 and SHTM 84 both mentioned, in the context of the control of combustible materials more generally, the appropriate storage and disposal of aerosol sprays taking into account the quantities involved³⁹⁴⁷.

8. In all these circumstances it would have been a reasonable precaution to minimize the combustible materials in cupboard A2 and, in particular, not to keep aerosols in this cupboard³⁹⁴⁸.

9. Mr. Todd's principal concern in relation to the contents of cupboard A2, had he been risk assessing cupboard A2, would have been the quantity of aerosols stored within it³⁹⁴⁹. He would have accorded high and urgent priority to moving the aerosols elsewhere³⁹⁵⁰. Standing the considerations mentioned above, he was, it is submitted, right to identify this as a reasonable precaution.

Had this step been taken, some or all of the deaths might have been avoided.

10. For reasons explained above, a release from an aerosol may have been the fuel which was ignited and which gave rise to the fire. If that was indeed the case, then had the aerosol in question not been in the cupboard, the fire would not have occurred and both the accident and the deaths would have been avoided.

11. In any event, aerosols played a significant – if unusual - role in the development of the fire³⁹⁵¹. Had there been no aerosols in the cupboard, then (unless it was ignition of fuel which had leaked from an aerosol which set the fire off), a significant fire would still have been able to develop within the cupboard. Test C undertaken by BRE tested just such a scenario. The fire reached a peak temperature within the cupboard

³⁹⁴⁷ HTM 84, Pro 1436, p. 20; SHTM 84, 3rd edn, para. 4.6, Pro 1434, p. 21; Martin Shipp, 16 April 2010, am, p. 6.

³⁹⁴⁸ Colin Power 11 June 2010, pm, pp. 68-71.

³⁹⁴⁹ Colin Todd, 27 July 2010, am, p. 148, 28 July 2010, am, p. 116.

³⁹⁵⁰ Colin Todd, 27 July 2010, pm, pp. 1-3.

³⁹⁵¹ Martin Shipp, 16 April 2010, am, p. 83.

of 1100 degrees Centigrade. Heat and asphyxiant gases would have been generated from such a fire at life-threatening levels³⁹⁵².

12. However, if the aerosols had not become involved in the fire, the situation would have been different in the following respects:-

12.1. The development of the fire would have been slower³⁹⁵³. The fire would have been susceptible to emergency fire-fighting for longer, not only for this reason, but also because staff would not have faced the unpredictable risk of an aerosol exploding³⁹⁵⁴.

12.2. The corridor 3 /4 firedoor would not have been blown open. The firedoor would have prevented the ingress of smoke and toxic fire gases into corridor 3 by this route. The relative contributions of this route of transmission and the route through the ducting cannot be determined. However, had the corridor 3/4 firedoor not been blown open, there would not have been any contribution to the toxic atmosphere in corridor 3 from smoke and fire gases passing through that doorway. It is likely that this would have reduced the toxic atmosphere in corridor 3 and the deaths in that corridor might accordingly have been avoided. If, in addition, fire dampers had been fitted in the ducting, it is likely that those deaths would have been avoided.

13. If the cupboard doors of cupboard A2 had been secured, this would have contained the fire for considerably longer than the actual situation at Rosepark, and for sufficient time for other protective steps to have been taken. However, even if the cupboard doors had been secured, the benefit of securing the doors would have been compromised if an aerosol had exploded with sufficient force to disrupt the cupboard doors. It follows that the absence of aerosols from cupboard A2 might have made a difference so far as the deaths in corridor 4 are concerned, if in addition the cupboard doors had been secured.

³⁹⁵² Martin Shipp, 14 April 2010, pm, pp. 34-42.

³⁹⁵³ Martin Shipp, 14 April 2010, pm, pp. 41-42, 16 April 2010, am, pp. 61-62.

³⁹⁵⁴ Martin Shipp, 16 April 2010, am, pp. 60-62, 69-71.

14. Accordingly, had aerosols not been stored in quantities in cupboard A2, this might have avoided the deaths of residents in corridor 3³⁹⁵⁵. It might have avoided the deaths of residents in corridor 4 if at least one of the following additional precautions had been taken:-

14.1. Staff had gone promptly to the scene in time to engage in emergency fire-fighting³⁹⁵⁶; or

14.2. The cupboard doors had been secured³⁹⁵⁷.

Note to Chapter 44(3)(D)

There were no submissions contrary to these findings.

³⁹⁵⁵ Paragraph 12.2 above.

³⁹⁵⁶ Paragraph 12.1 above.

³⁹⁵⁷ Paragraph 13 above.

CHAPTER 44(3)(E): PROTECTION OF THE MEANS OF ESCAPE – SUB-DIVISION OF CORRIDOR 4

Reference is made to Chapter 21.

I have made the following findings at RP3.5:

It would have been a reasonable precaution to reduce the number of residents in any subcompartment by subdividing corridor 4. Other reasonable precautions open to management to deal with this obvious concern would have been:

- i. as an interim measure they could simply have decided to take fewer residents**
- ii. they could have moved highly dependent residents to other locations**
- iii. they could have installed a sprinkler system**
- iv. they could have employed additional staff on the night shift**

Had these precautions been taken, some of the deaths might have been avoided.

Introduction

1. To a fire safety professional, it would have been obvious that Corridor 4 was too long. It would have been obvious that the number of persons accommodated in that corridor – 14 – would be too many for an effective evacuation³⁹⁵⁸.

2. Closer examination simply confirms the position.

2.1. Any resident of Rosepark would be someone who could no longer live independently, would be elderly, and would be likely to suffer from one or more of the illnesses and disabilities of age. At any given time, the resident population

³⁹⁵⁸ Colin Todd, 26 July 2010, am, pp. 62-63, 27 July 2010, am, pp. 62-63; David Charters, 20 July 2010, am, pp. 113-114.

was likely to include individuals with severe mobility difficulties and/or dementia³⁹⁵⁹.

2.2. The resident population in corridor 4 at the time of the fire was an exceptionally dependent population³⁹⁶⁰. It included two amputees (one bilateral)³⁹⁶¹, two individuals who had at the time of the fire recently had leg operations³⁹⁶² (one of whom had an in situ catheter), a man who was registered blind³⁹⁶³, and two individuals who were, by reason of dementia, unable to communicate their needs³⁹⁶⁴. The only resident of the corridor who was able to mobilize without a walking aid suffered from Alzheimer's disease and was very confused³⁹⁶⁵. All of these residents would require assistance in an emergency, and some would require the assistance of at least two members of staff if they were to be moved.

2.3. The landing of the south-west stairwell was not large enough to accommodate all of the residents of corridor 4³⁹⁶⁶. Any evacuation in that direction would require to include taking residents downstairs at least to the next landing. None of the residents of corridor 4 could have negotiated the stairs without assistance and some of them would require to have been carried down the stairs³⁹⁶⁷.

2.4. Without undertaking any detailed assessment, it is plain that evacuation of this population in an emergency would present very serious challenges. Ms Midda's exercise, described in Chapter 21 above, provides some sense of the timescales which would be liable to be involved simply in the process of moving these residents out of the corridor (without taking any account of the time taken to move them downstairs). She estimated that it would take between 22.5 and 37

³⁹⁵⁹ Chapter 5, paras. 2-3.

³⁹⁶⁰ Chapter 5, paras. 6-7.

³⁹⁶¹ Ellen (Helen) Milne and Margaret Lappin, Chapter 5, paras. 18, 23.

³⁹⁶² Agnes Dennison and Annie Thomson, Chapter 5, paras. 17, 25

³⁹⁶³ Thomas Cook, Chapter 5, para. 15.

³⁹⁶⁴ Mary McKenner and Annie (Nan) Stirrat, Chapter 5, paras. 19, 24,

³⁹⁶⁵ Helen (Ella) Crawford, Chapter 5, para. 16.

³⁹⁶⁶ Chapter 21, para. 5.3.

³⁹⁶⁷ Chapter 21, para. 5.4.

minutes to evacuate the residents of corridors 3 and 4 in the event of a fire in cupboard A2³⁹⁶⁸.

2.5. It is also obvious that in the course of an evacuation of fourteen residents, over time, staff would become progressively tired³⁹⁶⁹.

3. A suitable and sufficient risk assessment would have disclosed that the residents of corridor 4 could not have been evacuated within a reasonable time.

4. There would, in principle, have been various options open to the management at Rosepark Care Home to deal with the problem. For example³⁹⁷⁰:-

4.1. As an interim measure, they could simply have decided to take fewer residents.

4.2. They could have moved highly dependent residents to other locations³⁹⁷¹.

4.3. They could have installed a sprinkler system.

4.4. They could have employed additional staff on the nightshift³⁹⁷².

The obvious response, however, would have been to subdivide the corridor³⁹⁷³. This was in fact done following the fire, both at Rosepark and at Croftbank³⁹⁷⁴.

³⁹⁶⁸ Chapter 21, para. 6.

³⁹⁶⁹ Chapter 21, paras. 6.2.

³⁹⁷⁰ Colin Todd, 27 July 2010, am, pp. 62-66.

³⁹⁷¹ David Charters, 20 July 2010, am, pp. 115-116.

³⁹⁷² David Charters, 20 July 2010, am, pp. 120-122.

³⁹⁷³ David Charters, 20 July 2010, am, pp. 113-114, 121-122; Colin Todd, 26 July 2010, am, p. 63; 27 July 2010, am, pp. 62-64.

³⁹⁷⁴ Alan Balmer, 4 June 2010, am, pp. 95-96.

Guidance

Home Office “Green Guide”

5. The Home Office “Green Guide” stated³⁹⁷⁵:

“Protected areas

1.8. When it is practicable to achieve the recommended standards of fire resistance ... in the elements of structure, the parts of residential care premises used as sleeping accommodation should be divided into *protected areas*. ...

1.9. The number of beds in a *protected area* should not exceed 10. However in the case of purpose-built accommodation up to 12 beds will be acceptable.”

HTM 84

6. HTM 84 stated³⁹⁷⁶:

“In most residential care premises, staff are always present and are expected to play a role in evacuation. Should a fire start, it will be first necessary to evacuate the sub-compartment of origin, and the number of staff available will influence the speed of evacuation. Such evacuation may be progressive horizontal evacuation if there are other sub-compartments to which it is possible to move without a significant change in level, and from where there is the potential for vertical escape to the ground floor, should that become necessary.

The speed of evacuation and the number of residents who can be evacuated before staff are exhausted will depend upon the number of staff available. Therefore the number of resident beds which can be permitted in each sub-compartment depends on the minimum number of staff awake and available on the premises (normally the night-time staffing level).

In medium and large premises the maximum number of resident beds permitted in each sub-compartment is:

Less than 2 staff awake at all times	5
2 or 3 staff awake at all times	7
4 or more staff awake at all times	9”

HTM 84 defined premises with 10 or more residents as large premises³⁹⁷⁷.

³⁹⁷⁵ Pro 1378, p. 5; Martin Shipp, 16 April 2010, am, pp. 21-22.

³⁹⁷⁶ Pro 1436, p. 27; Martin Shipp, 16 April 2010, am, p. 12.

³⁹⁷⁷ HTM 84, Pro 1436, p. 9.

*SHTM 84*7. SHTM 84 stated³⁹⁷⁸:

“In most residential care premises, staff are always present and are expected to play a role in evacuation. Should a fire start, it will be first necessary to evacuate the sub-compartment of origin, and the number of staff available will influence the speed of evacuation. Such evacuation may be progressive horizontal evacuation if there are other sub-compartments to which it is possible to move without a significant change in level, and from where there is the potential for vertical escape to the ground floor, should that become necessary.

The speed of evacuation and the number of residents who can be evacuated before staff are exhausted will depend upon the number of staff available. Therefore the number of resident beds which can be permitted in each sub-compartment depends on the minimum number of staff awake and available on the premises, normally the night-time staffing level.

Requirements

The maximum number of resident beds permitted in each sub-compartment is:

<i>Number of staff awake</i>	<i>Max number of beds</i>
Fewer than 2 staff awake at all times	5
2 or 3 staff awake at all times	7
4 or more staff awake at all times	9”

Had the corridor been sub-divided, some of the deaths might have been avoided.

8. The obvious place to subdivide corridor 4 would have been between room 9 and 10 or between room 10 and room 11³⁹⁷⁹. The latter would have been a reasonable approach since it would have achieved an equal number of residents (7) in each section³⁹⁸⁰.

9. Had there been effective subcompartmentation between room 10 and room 11, assuming that the subcompartmentation had been properly done and remained effective³⁹⁸¹, the following deaths would have been avoided:-

³⁹⁷⁸ 3rd edn, Pro 1434, p. 26; Martin Shipp, 16 April 2010, am, pp. 10-12.

³⁹⁷⁹ Cp Martin Shipp, 16 April 2010, am, p. 103.

³⁹⁸⁰ Colin Todd, 26 July 2010, am, pp. 63-64, 27 July 2010, am, pp. 58-59.

³⁹⁸¹ Colin Todd, 27 July 2010, am, pp. 59-62.

- 9.1. Isabella MacLeod
- 9.2. Margaret Lappin
- 9.3. Mary McKenner
- 9.4. Ellen (Helen) Milne
- 9.5. Helen (Ella) Crawford
- 9.6. Annie Thomson
- 9.7. Margaret Dorothy (Dora) McWee

If the subcompartmentation had been effected to the east of room 10, the death of Robina Burns would also, on the same assumption, have been avoided.

10. The pressure pulses which opened the corridor 3/4 firedoor could well have had the same effect on any firedoor at such a subcompartment. That firedoor might no doubt have been prevented from closing again in the same way as happened with the corridor 3/4 firedoor. It must, however, at least be a lively possibility that these residents would have survived had the compartment been subdivided in this manner³⁹⁸².

³⁹⁸² Martin Shipp, 16 April 2010, am, p. 103.

Note to Chapter 44(3)(E)

It is accepted on behalf of the Balmer Partnership that the proposed determinations are reasonable and appropriate.

On behalf of SF&R it is pointed out on behalf of Station Officer Campbell that this addresses the assumption that he made in forming his operational plan namely that subcompartmentation had been properly done and remained effective. No issue is taken by any of the other interested parties.

CHAPTER 44(3)(F): PROTECTION OF THE MEANS OF ESCAPE - FIRE DAMPERS

Reference is made to Chapters 8, 33 and 37.

I have found at RP3.6:

- 1. The installation of fire dampers would have been a reasonable precaution.**
- 2. Had this precaution been taken, the deaths in corridor 3 might have been avoided.**

The installation of fire dampers would have been a reasonable precaution

1. The installation of fire dampers (in particular, above the corridor 3/4 firedoor) would have been a reasonable precaution.

1.1. The Building Standards (Scotland) Regulations 1981 as amended, applicable at the time of construction, required the installation of fire dampers inter alia above the corridor 3/4 firedoor³⁹⁸³.

1.2. The warranted drawing specified “Fire dampers to duct where passing through ... cavity barrier or stair enclosure”³⁹⁸⁴.

1.3. It was a condition of the warrant that the building be constructed in accordance with the Building Standards and the warranted drawings³⁹⁸⁵.

Had fire dampers been installed this might have avoided deaths in corridor 3.

2. Had a fire damper been fitted in 1992, it would have been most likely to have been of the metal shutter type operated by means of a fusible link³⁹⁸⁶. Had such a

³⁹⁸³ Chapter 8, para. 11.

³⁹⁸⁴ Pro 1107, p. 70; also drawings warranted for purposes of amendment Pro 1106, p. 4.

³⁹⁸⁵ Pro 1107, p. 36; with amendment Pro 1106, p. 7

damper been located above the corridor 3/4 firedoor, the damper, once closed, would have significantly reduced the quantity of smoke traveling along the ductwork and into corridor 3 and the central stairwell although it might not have prevented it altogether³⁹⁸⁷.

3. Before the damper operated, some smoke would have passed along the ductwork³⁹⁸⁸. Although fire dampers of this sort respond nominally to a temperature of 76 degrees Centigrade, by reason of thermal inertia, they actually operate only when the gases around them are at a higher temperature³⁹⁸⁹. In Tests 2 and 3 of the BRE ventilation work, smoke had passed along the ducting to the location of the outlet into the central stairwell for more than a minute before the damper switch operated³⁹⁹⁰. In Test 4, smoke passed along the ducting to that location for almost three minutes before the damper operated³⁹⁹¹.

4. Had a fire damper been installed where the ventilation ducting passed above the corridor 3/4 firedoor, the quantities of smoke which would be likely to have passed into corridor 3 through the ducting prior to operation of the damper would not on their own, have been life-threatening³⁹⁹². Smoke and toxic gases would, however, still have entered corridor 3 at the firedoor.

5. The relative significance of the smoke and toxic gases which entered corridor 3 by way of the ducting system (without its damper) and by way of the firedoor cannot be determined with certainty and it seems likely that ingress by the door was more important than ingress via the ducting³⁹⁹³. It was only when the extract fan in the ventilation system failed that smoke would have passed into corridor 3³⁹⁹⁴. But, equally, it is not known when in the course of the fire, the corridor 3/4 firedoor was blown open. According to Mr. Shipp, however, the quantity of smoke passing into corridor 3 through the ducting could have been (though it probably was not) sufficient

³⁹⁸⁶ Martin Shipp, 16 April 2010, am, p. 86.

³⁹⁸⁷ Martin Shipp, 15 April 2010, am, pp. 31-33, 64; 16 April 2010, am, pp. 89-96.

³⁹⁸⁸ Martin Shipp, 16 April 2010, am, pp. 87-89

³⁹⁸⁹ Martin Shipp, 15 April 2010, am, pp. 29-30, 42-43, 16 April 2010, am, pp. 86-87.

³⁹⁹⁰ Martin Shipp, 15 April 2010, am, pp. 22-31, 41-42, 50-51.

³⁹⁹¹ Martin Shipp, 15 April 2010, am, p. 56

³⁹⁹² Martin Shipp, 15 April 2010, am, p. 65, 16 April 2010, am, pp. 87-91, 94.

³⁹⁹³ Martin Shipp, 16 April 2010, am, pp. 92-94; see Chapter 37, paras. 22-23.

³⁹⁹⁴ Chapter 37, para. 20.1.

on its own to have been life-threatening³⁹⁹⁵. It may at least be said that the smoke and toxic gases which entered corridor 3 via the ducting contributed to the toxic atmosphere there, although the extent to which it did so cannot be determined.

6. The potential of a toxic atmosphere composed of the products of combustion to cause incapacitation and death depends on the concentration of those toxic components in the atmosphere and the duration of exposure³⁹⁹⁶. In these circumstances, where injury or death has been caused by such a toxic atmosphere, any source which makes a material contribution to that toxic atmosphere may, in a situation of uncertainty as to the precise contributions made by that source and other sources, properly be regarded as causing the injury or death³⁹⁹⁷.

7. In the present case, as a result of the toxic atmosphere within corridor 3, two residents of corridor 3 died. It is not necessary to go so far as to say that the absence of fire dampers did in fact make a critical difference to the survivability of the toxic atmosphere in corridor 3. It suffices for the purposes of a determination that, in a situation of uncertainty, if fire dampers had been in place, this might have avoided the deaths in corridor 3.

8. Furthermore, had such a damper been installed, the quantity of smoke reaching the central stairwell would have been relatively small. People would have been aware of it but it would not have been threatening and would not have been sufficient to deter an experienced fire-fighter from entering the stairwell³⁹⁹⁸. This might have affected the behavior of the staff in the first instance, and the fire fighters.

9. Shortly before the Fire Brigade arrived Miss Queen and Mrs Richmond evacuated the residents of corridor 1 to the Rose Lounge³⁹⁹⁹. They tried to go beyond

³⁹⁹⁵ Martin Shipp, 15 April 2010, am, pp. 62-63, 16 April 2010, am, pp. 135-8. At 16 April 2011, am, p. 137, Mr. Shipp stated “there is ... the possibility that ... the presence of the ducting could have by itself over the full duration of the test have produced potentially life threatening conditions in corridor three, but that is not what we actually observed in our experiments.”

³⁹⁹⁶ Chapter 39 above.

³⁹⁹⁷ *Wardlaw v. Bonnington Castings Ltd* 1956 SC (HL) 26.

³⁹⁹⁸ Martin Shipp, 16 April 2010, am, pp. 94-96.

³⁹⁹⁹ Isobel Queen, 2 December 2009, pm, p32; Irene Richmond, 1 December 2009, am, pp124-125;

the second fire door to get other residents out but were unable to do so by reason of the smoke logging in the area of the lift⁴⁰⁰⁰.

10. Had conditions in the central stairwell allowed Miss Queen and Mrs Richmond to get beyond the central stairwell and into corridor 3 it is likely that they would have observed significant smoke logging. Station Officer Campbell's operational plan was based on information given to him by the staff which led him to believe that there was a fire situation at the lower level⁴⁰⁰¹. When he instructed the persons reported instruction Mr Campbell was satisfied that the smoke was contained in the area of the lift and that, therefore, he had adequate resources to deal with the incident⁴⁰⁰².

11. On the reasonable assumption that Miss Queen and Mrs Richmond would have reported observing significant smoke logging in corridor 3, the assumptions which advised Mr Campbell's decision not to seek additional resources would have been shown to be invalid. It is reasonable to conclude that he would have sought additional resources for both fire fighting and search and rescue at 0450 hours (when the persons reported message was sent). Accordingly, the conduct of the fire services might have been different in a manner which could have expedited the rescue of those residents who were still alive.

Note to Chapter 44(3)(F)

This finding is supported on behalf of the Balmer Partnership. It is submitted on behalf of SF&R that when Station Officer Campbell made his operational plan, it was based on information given to him by the staff which led him to believe that there was a fire situation at the lower level. When he instructed the "persons reported" message Station Officer Campbell was satisfied that the smoke was contained in the area of the lift and that he had adequate resources to deal with the incident, although he was keeping that assumption under review. It is accepted on behalf of SF&R with regard to paragraphs 10 and 11 that if Ms Queen and Mrs Richmond had observed smoke logging in corridor 3 they would have reported that to Station Officer Campbell. It is

⁴⁰⁰⁰ Irene Richmond, 1 December 2009, am, P125; Isobel Queen, 2 December 2009, pm, pp34-35;

⁴⁰⁰¹ Steven Campbell, 8 January 2010, am, pp99-100;

⁴⁰⁰² Steven Campbell, 8 January 2010, am, p100;

further accepted that had he been advised at an earlier stage that there was smoke logging in corridor 3 this would have caused him to review his operational plan. It is accepted that it is likely that this review would have included the summoning of additional resources at an early stage.

I would comment that it is clear that thick black smoke observed in the lift area by the nursing staff and Station Officer Campbell came from the fire in cupboard A2 in corridor 4. Its route was via the roof space and the vent in the ceiling of corridor 2. That smoke would have been contained in the area of corridor 4 had there been a fire damper in place.

The Care Commission made no submissions.

I have already alluded to the submissions of North Lanarkshire Council to the effect that they feel a degree of caution should be exercised in reaching the conclusion that, if fire dampers had been in place, this might have avoided the deaths in corridor 3. This is in relation to the uncertainty as to the extent of the respective contributions made to the toxic atmosphere in corridor 3 made by (a) smoke coming in the corridor door between corridors 3 and 4 which had been blown open by the action of the aerosols and (b) smoke via the vents in the ceiling of corridor 3 via the roof space as a result of their being no damper.

As I have already indicated the court is at this stage is considering a reasonable precaution "which might have avoided" the deaths. Standing the amount of smoke coming from the roof space into corridor 2, which caused substantial visibility problems in corridor 2 the contribution to the toxic atmosphere in corridor 3 must have been significant. However the extent of the two sources of smoke to the toxic atmosphere cannot be specifically calculated. However, it is enough under section 6(1)(c) if the deaths in corridor 3 "might have been avoided". In my view that conclusion can properly be reached in light of the evidence which was placed before the Inquiry. As I have indicated, I do not reach a similar conclusion when applying that evidence to the terms of section 6(1)(d).

There were no other submissions on behalf of any interested parties which call for comment.

CHAPTER 44(4): PROMPT, ACCURATE AND EFFECTIVE ACTION BY STAFF

In RP4 of my findings, I have determined the following would have been reasonable precautions:

- 1. The provision of clear information at the fire alarm panel (and in particular a diagrammatic representation), such as would enable staff to identify quickly and accurately the location of any detector which had been activated.**
- 2. Adequate training and drills for staff in the action required of them in an emergency. and**
- 3. Instruction for Isobel Queen in the new fire alarm panel.**

Had these precautions been taken, they might have avoided each of the deaths.

Introduction

1. In the event of an emergency, speed is of the essence⁴⁰⁰³. Fires start small and grow to a point where they become life-threatening. As the evidence about the fire at Rosepark illustrates, there may be a short but critical window of opportunity during which effective action can make all the difference between a safe outcome and a tragedy.
2. It is accordingly critically important, if there is to be an appropriate response to a fire alarm: (a) that staff quickly and accurately identify where the detector which has alarmed is located⁴⁰⁰⁴; and (b) respond promptly and effectively to the alarm⁴⁰⁰⁵.
3. With a view to achieving these aims:

⁴⁰⁰³ Thomas Balmer, 5 May 2010, am, p. 92.

⁴⁰⁰⁴ Thomas Balmer, 30 April 2010, am, pp. 89-90.

⁴⁰⁰⁵ Martin Shipp, 15 April 2010, am, pp. 147-149.

- 3.1. It would have been a reasonable precaution to provide clear information at the fire alarm panel such as would enable staff to identify quickly and accurately the location of the detector which has alarmed⁴⁰⁰⁶;
 - 3.2. It would have been a reasonable precaution for staff to have been adequately trained and drilled in the actions required of them in an emergency⁴⁰⁰⁷; and
 - 3.3. It would have been a reasonable precaution for Isobel Queen to have been given instruction in relation to the new fire alarm panel⁴⁰⁰⁸.
4. Each of these precautions (and, a fortiori, if they had all been taken) might have avoided the deaths.
 5. Each of these matters is dealt with in turn in the following subchapters.

⁴⁰⁰⁶ Chapter 44(4)(A) below.

⁴⁰⁰⁷ Thomas Balmer, 5 May 2010, am, p. 92; Chapter 44(4)(B) below.

⁴⁰⁰⁸ Chapter 44(4)(c) below.

CHAPTER 44(4)(A): INFORMATION AT THE ALARM PANEL

Reference is made to Chapters 9 and 28.

I have found at RP4.1:

- 1. It would have been a reasonable precaution to have provided clear information at the fire alarm panel (and, in particular a diagrammatic representation) such as would enable staff to identify quickly and accurately the location of the detector which had been activated.**

- 2. This precaution might have avoided some or all of the deaths.**

It would have been a reasonable precaution to have provided clear information at the fire alarm panel (and, in particular a diagrammatic representation) enabling staff to identify quickly and accurately the location of the detector which had been activated.

1. A conventional fire alarm system, such as that which existed at Rosepark, depended on the member of staff in charge at the panel accurately identifying the relevant area of the building which corresponded to the zone which has been activated at the panel⁴⁰⁰⁹. It was accordingly essential that the information at the panel clearly describe the area to which the zones relate⁴⁰¹⁰.

2. The zoning information at the fire panel was ambiguous and laid out in a confusing manner⁴⁰¹¹. For someone looking at that document and trying to work out where a fire was by reference to the descriptions, there was a potential for confusion⁴⁰¹².

⁴⁰⁰⁹ Iain Fotheringham, 15 January 2010, pm, pp. 24-25.

⁴⁰¹⁰ Iain Fotheringham, 15 January 2010, pm, p. 25.

⁴⁰¹¹ Chapter 9, paras. 20-22.

⁴⁰¹² Julian Norris, 7 January 2010, am, p. 140.

3. In particular, there was no diagrammatic representation of the building showing the division into zones at or adjacent to the panel⁴⁰¹³. The provision of such a zone plan would have been a reasonable precaution.

3.1. The provision of such a diagrammatic representation near the fire alarm panel was at all relevant times recommended in the relevant British Standard⁴⁰¹⁴. The primary purpose of such a diagrammatic representation was to give an unambiguous indication to those responding to the alarm (both staff and members of the emergency services) where exactly the fire is located in terms of the zone⁴⁰¹⁵. Mr Todd confirmed that the information at the fire alarm panel as shown on Pro 334C was not sufficient to meet the recommendations of the British Standard⁴⁰¹⁶.

3.2. There was no good reason why such a diagrammatic representation at Rosepark could not have been provided at Rosepark. Mr Fotheringham of Comtec, who had a contractual responsibility for maintenance of the fire alarm system until 2003, had started producing zone plans for care homes about a year or two after he installed the system at Rosepark⁴⁰¹⁷. There was, in fact, such a zone plan at Croftbank⁴⁰¹⁸.

4. When Rosepark was constructed, there were available analogue addressable fire alarm systems which would have identified which specific detector had been activated as well as the zone in which that detector was located⁴⁰¹⁹. The decision not to install an addressable system in the early 1990s does not, however, fall to be criticized⁴⁰²⁰. The installation of a conventional system in a Care Home would still today comply with the British Standard. Replacement of a conventional system with an addressable system would not be straightforward and would involve a considerable cost (some

⁴⁰¹³ Chapter 9, para. 11.

⁴⁰¹⁴ BS 5839-I:1988, para. 15.4 (Pro 1827, p. 29); Colin Todd, 26 July 2010, am, pp. 65-71.

⁴⁰¹⁵ Colin Todd, 26 July 2010, am, pp. 72-74.

⁴⁰¹⁶ Colin Todd, 26 July 2010, am, pp. 71-72.

⁴⁰¹⁷ Iain Fotheringham, 15 January 2010, pm, p. 86.

⁴⁰¹⁸ George Muir, 18 January 2010, pm, p. 86.

⁴⁰¹⁹ Mr Norris stated that if he were fitting an alarm system in care premises today he would recommend the use of such a system but that he would not be critical of someone in the early 1990s installing a conventional system in a care home: 7 January 2010, am, pp. 13-19, 114-115

⁴⁰²⁰ Colin Todd, 26 July 2010, am, pp. 17-20

£20,000 was Mr Todd's estimate)⁴⁰²¹. In these circumstances, provided adequately clear and unambiguous information could be provided in other ways, I do not propose to make a finding that it would have been a reasonable precaution to install an analogue addressable system. However, Mr Todd did give cogent reasons for considering an analogue addressable system preferable in the context of a care home and invited me to make a recommendation that the British Standard should be revised to reflect these benefits⁴⁰²². I deal with this at paragraph 5 of Chapter 46(6)(F)

This precaution might have avoided some or all of the deaths.

5. Right at the outset, a critical error was made as to the location of the alarm which had been activated. Instead of going to corridor 4 where the fire actually was, staff investigated the foyer area and downstairs. In effect, they investigated all parts of the building other than the area where the fire actually was⁴⁰²³.

6. Had Isobel Queen accurately identified at the outset the location of the alarm which had activated, she would – even applying the inadequate procedure which pertained at the Home - have immediately sent two members of staff to investigate that area.

7. There was a window of opportunity (albeit a short one) during which prompt first aid fire fighting by the staff on duty could have extinguished the fire⁴⁰²⁴. For the following reasons, it may be concluded that this window of opportunity was between about 2 and 5 minutes from the sounding of the alarm.

7.1. By the time the fire had developed to the extent shown between two minutes and three and a half minutes into BRE Test 1, the fire would not have been fightable by the lay public, certainly if they were not trained and experienced in the use of fire extinguishers⁴⁰²⁵.

⁴⁰²¹ Colin Todd, 29 July 2010, am, pp. 101-107.

⁴⁰²² Colin Todd, 28 July 2010, am, pp. 139-141

⁴⁰²³ Chapter 28.

⁴⁰²⁴ Stuart Mortimore, 17 March 2010, am, pp. 93-95, 131-132.

⁴⁰²⁵ Stuart Mortimore, 17 March 2010, am, pp. 97-98; Martin Shipp, 14 April 2010, am, pp. 27-28; pm, p. 78.

7.2. In the real situation there would, however, have been additional time between the sounding of the fire alarm and the equivalent of ignition in the BRE Test⁴⁰²⁶. It may be concluded, for reasons explained in Chapter 32 above, that this period was not more than about two minutes⁴⁰²⁷.

7.3. Once the first aerosol exploded, it would not have been reasonable even for a trained and experienced person to seek to tackle the fire using a hand-held extinguisher⁴⁰²⁸. In BRE Test 1 this occurred 4 minutes 23 seconds from the ignition of the flaming cribs. In Tests 2 and 3 this occurred significantly later. In any event, the fire would have reached the point mentioned at 7.1 above – i.e. the point when the fire would no longer be fightable by a layperson - before that point.

8. It would have taken less than 30 seconds at a run – for staff to reach cupboard A2 from the fire alarm panel⁴⁰²⁹. There were fire extinguishers located en route, which staff could have picked up on the way – and properly trained staff would be expected to do this⁴⁰³⁰.

9. Once staff reached the cupboard, they would have had to make a decision whether or not to engage in emergency fire-fighting. Assuming staff had picked up an appropriate extinguisher, the fire at that stage (which would be at or around the stage of ignition in the BRE test or slightly after) would still have been capable of being dealt with by first aid fire-fighting and it could be anticipated that the fire would be extinguished avoiding all the deaths.

10. Even if the staff had decided that emergency fire fighting was not feasible, one would expect properly training staff to have closed the door of the cupboard and the open bedroom doors⁴⁰³¹. This would have bought significant additional time and would have provided protection to residents in their own rooms while further

⁴⁰²⁶ Chapter 32, para. 2.

⁴⁰²⁷ Chapter 32, paras. 6-7.

⁴⁰²⁸ Martin Shipp, 14 April 2010, am, pp. 27-28.

⁴⁰²⁹ Thomas Balmer, 10 May 2010, pm, p. 18; Alan Balmer, 3 June 2010, pm, pp. 30-31.

⁴⁰³⁰ Thomas Balmer, 10 May 2010, pm, p. 23.

⁴⁰³¹ Stuart Mortimore, 17 March 2010, am, p. 99; Thomas Balmer, 10 May 2010, pm, pp. 19-21; Janette Midda 17 June 2010, am, p.. 57-59, 62-63.

emergency steps were taken⁴⁰³². Amongst those steps would have been a 999 call to the Fire Brigade⁴⁰³³. The arrival of the Fire Service would have been significantly expedited as compared with the events of the actual incident itself.

11. Had staff started to evacuate residents pending the arrival of the Fire Service and had an aerosol exploded and either disrupted the doors of the cupboard or itself escaped as a missile, any staff and residents then in the corridor would have been at significant risk. I do not conclude that all the deaths would have been avoided on this scenario. However, I do conclude that some of the deaths in corridor 4 and the deaths in corridor 3 might have been avoided.

12. One cannot know for certain that the provision of a diagrammatic representation of the zoning arrangements would, on its own, have resulted in Isobel Queen making an accurate identification of the zone. However, it might well have done. The CCTV footage shows evident confusion as staff tried to relate the information on the zone card to the indication on the panel. Isobel Queen herself believed that a diagram which illustrated which zone might have made a difference⁴⁰³⁴.

Note to Chapter 44(4)(A)

It is submitted on behalf of the Balmer Partnership that the reasonable precaution which I have articulated is reasonable and appropriate. As far as the conclusion that this precaution might have avoided some or all of the deaths, it is said that this conclusion does not take into account human frailty and panic which arise, in a fast moving emergency situation. It was suggested that it was glib to maintain as a reasonable precaution that, if staff at the fire alarm, and in particular Isobel Queen, had acted more promptly, which it was said was in itself doubtful, the deaths might have been avoided. It was particularly so when one considered all the other unusual factors in this case.

⁴⁰³² Martin Shipp, 15 April 2010, am, pp. 142-143;

⁴⁰³³ It is the Crown submission that it would have been a reasonable precaution for this to have been made immediately. But even following the procedure which pertained at Rosepark, if the fire had been identified promptly, a call would have been made to the Fire Service significantly earlier than was in fact the case on 31 January 2004.

⁴⁰³⁴ Isobel Queen, 3 December 2009, am, pp. 39-40.

I do not agree. For the reasons which I have set out, it seems to be an appropriate to conclude that, if the reasonable precaution which I have set out had been taken, this might have avoided some or all of the deaths. That is all that is required in terms of section 6(1)(c).

On behalf of SF&R, the position I have set out is supported. In particular there is support for the conclusion that the zoning information at the fire panel was ambiguous and laid out in a confusing manner. For someone looking at the document and trying to find out where a fire was by reference to the descriptions there was a potential for confusion.

It is properly pointed out that the potential for confusion might equally have arisen with Station Officer Campbell. In his case the potential for confusion was the greater because he was being informed by Ms Queen that the location of the fire was on the lower floor. He had no reason to doubt that. He was told by an apparently competent nurse that zone 3 related to the lower level.

The Care Commission agree with my proposal.

CHAPTER 44(4)(B): TRAINING AND DRILLS

Reference is made to Chapters 9, 15, 16, 17, 18, 19, 20, 22 and 28.

I have made the following findings under RP4.2:

It would have been a reasonable precaution for staff to have been provided with adequate training and drills in the action required of them in an emergency.

Had this precaution been taken, some or all of the deaths might have been avoided.

General

1. Fires are relatively rare events. Yet in the event of a fire, prompt and effective action may make all the difference between a safe outcome and a disaster. It is imperative that the staff of a care home are equipped to take prompt and effective action in an emergency.

2. The only way to do this is through effective training. In that regard:

2.1. It is necessary that training be delivered not only at the start of a staff member's employment but also regularly thereafter⁴⁰³⁵.

2.2. It is necessary that the training be delivered in an effective manner.

2.3. It is necessary that the training be related to the particular workplace⁴⁰³⁶.

2.4. It is necessary that the training include the communication of information about the way fires may behave in enclosed spaces, which is outside ordinary experience⁴⁰³⁷.

⁴⁰³⁵ David Charters, 20 July 2010, pm, pp. 2-4; Anne Jarvie, 21 July 2010, am, pp. 61-64.

⁴⁰³⁶ Anne Jarvie, 21 July 2010, am, pp. 34-35.

2.5. The training requires to be delivered by a knowledgeable and credible individual⁴⁰³⁸.

2.6. It is necessary that the training, for any members of staff who may be required to undertake emergency fire-fighting, include sufficient training in the use of a fire extinguisher to enable those staff members to be able confidently to engage in emergency fire fighting.

2.7. It is necessary that staff who are expected, in an emergency, to undertake particular responsibilities (such as a nurse in charge, particularly on nightshift) are given training appropriate and adequate to those responsibilities⁴⁰³⁹.

2.8. In the context of an environment such as Rosepark it was necessary for training to include consideration of evacuation⁴⁰⁴⁰.

2.9. Confirmation of competence is an important output of training. In other words it is necessary to check that staff have really taken on board the key lessons of the training⁴⁰⁴¹.

2.10. All staff must be subjected to drills, not only to test that the training has been effective, but to give staff practical experience⁴⁰⁴².

2.11. Particular attention requires to be given to the training and drilling of staff who will be on duty at times of particular risk, such as at night, and also because nightshift, which may involve part-time staff, who have more limited contact with the other staff at the home, presents its own challenges in terms of making sure that all staff are trained and receive drills⁴⁰⁴³.

⁴⁰³⁷ David Charter, 20 July 2010, pm, pp. 7-8.

⁴⁰³⁸ Anne Jarvie, 21 July 2010, am, pp. 92-93.

⁴⁰³⁹ Pro 1120, p. 34; David Charters, 20 July 2010, pm, pp. 8-9; Anne Jarvie, 21 July 2010, am, p. 142.

⁴⁰⁴⁰ Anne Jarvie, 21 July 2010, am, pp. 59-60, 66-71.

⁴⁰⁴¹ Anne Jarvie, 21 July 2010, am, pp. 45-

⁴⁰⁴² Anne Jarvie, 21 July 2010, am, p. 67.

⁴⁰⁴³ Anne Jarvie, 21 July 2010, am, pp. 72-75.

Home Office “Green Guide”1. The Home Office “Green Guide” stated⁴⁰⁴⁴:

“5.1. In the event of fire the safety of residents depends heavily upon the ability of staff to respond promptly. It is of vital importance that all members of staff should be made aware of, and instructed and trained to ensure that they understand, the fire precautions applicable to the building and the action to be taken in the event of fire. This should include staff on shift duties or other regular duties outside the normal working hours. The aim should be to ensure that all staff receive instruction, practical demonstration, and training appropriate to their responsibilities in the event of an emergency. These should be based on written instructions. All residents should be made aware of evacuation procedures to be followed in the event of fire and those residents who are able should be encouraged to participate in fire drills.

5.2. Instructions should be given by a competent person, at such intervals as will ensure that all members of staff are instructed at least twice in each period of 12 months.

5.3. Instruction and training for staff generally should cover the following matters:

The action to be taken upon discovering a fire

The action to be taken upon hearing the fire alarm

The correct method of calling the fire brigade

Appreciation of the importance of fire doors and of the need to close all doors at the time of a fire and on hearing the fire alarm

How to move elderly persons and others who may require assistance in an emergency, including where appropriate horizontal movement between *protected areas*.

5.4. Except in small establishments, practice fire drills should be carried out at least twice a year. ...

5.5. Such details as are necessary to show the training and instruction given should be recorded. The following are examples of matters which may need to be included in such a record:

date of the instruction or exercise

duration;

name of the person giving the instruction;

names of the persons receiving the instruction; and

the nature of the instruction, training or drill.

⁴⁰⁴⁴ Pro 1378, p. 12.

5.6. In all premises one person should have overall responsibility for organizing staff training and coordinating the actions of the staff in the event of fire.

5.7. At conspicuous positions in all parts of the premises printed notices should be exhibited stating in concise terms the essentials of the action to be taken upon discovering a fire and on hearing the fire alarm. Notices giving more detailed instructions should be exhibited in all staff rooms, in staff residential accommodation and on notice boards.”

HTM 84

2. HTM 84 stated⁴⁰⁴⁵:

“Owners and managers of residential care premises should ensure that all staff (including temporary and agency staff) are given appropriate information about, and instruction and training in, the fire precautions to be taken or observed in the premises, including the action to be taken in case of fire.

Information, instruction and training should be given at the start of the person’s employment in the residential care premises and whenever there is a change in the fire risk. It should be repeated at least twice every year.

Practice fire drills should also be held at least once every year.

Notes

Fire safety training should be specific to the residential care premises and should cover:

- fire prevention;
- the correct action to be taken when a fire is discovered;

evacuation and escape procedures;

Fire safety information, instruction and training should be given by competent persons, whether in the normal workplace or elsewhere.

Every person identified in the emergency plan as a person responsible for supervising and controlling the putting into effect of the plan should be given access to the fire risk assessment and to the emergency plan, and should be given such additional instruction as will enable him or her to discharge those responsibilities.”

⁴⁰⁴⁵ Pro 1436, p. 22; Martin Shipp, 16 April 2010, am, p. 9; Colin Todd, 28 July 2010, am, pp. 37-39.

SHTM 84

3. SHTM 84 was in very similar terms but added to the list of matters which fire safety training should cover: “the correct action to be taken on hearing the alarm”⁴⁰⁴⁶.

Fire Safety: An Employer’s Guide

4. Fire Safety: An Employer’s Guide contained various sections about training, including the following⁴⁰⁴⁷:

“ The type of training should be based on the particular features of your workplace and:

- should explain your emergency procedures;
- take account of the work activity, the duties and responsibilities of employees
- take account of the findings of the risk assessment; and
- be easily understandable by your employees.

Training should be repeated as necessary (usually once or twice a year) so that your employees remain familiar with the fire precautions in your workplace and are reminded what to do in an emergency – including those who work in the premises outside normal hours, such as cleaners or shift workers. ...

Training should preferably include practical exercises, e.g. fire drills, to check people’s understanding of the emergency plan and make them familiar with its operation. ...

Your training should include the following:

- the action to take on discovering a fire;
 - how to raise the alarm and what happens then;
 - the action to take upon hearing a fire alarm
 - the evacuation procedures for everyone in your workplace to reach an assembly point at a safe place
- ...”

Lanarkshire Health Board Guidelines

5. The Lanarkshire Health Board Guidelines for Nursing Homes June 1999⁴⁰⁴⁸ specified the following:

⁴⁰⁴⁶ 1st edn, Pro 1227, p. 40; Colin Todd, 28 April 2010, am, p. 44; 3rd edn, Pro 1434, p. 23; Martin Shipp, 16 April 2010, am, pp. 8-9.

⁴⁰⁴⁷ Pro 1120, p. 33; David Charters, 20 July 2010, am, pp. 129-130.

“Prior to the opening of the nursing home staff should receive comprehensive training in fire safety and thereafter attend at least one programme of training annually.

Fire drills should be carried out on a regular basis but certainly once every 12 months.”

Strathclyde Fire Brigade Fire Precautions Log Book

6. The Strathclyde Fire Brigade Fire Precautions Log Book, Pro 221, drew a distinction between instructions and drills. It suggested two instruction periods in the first month of employment and then (unless otherwise specified by a fire certificate) three monthly for staff on night duties and six monthly for staff on day duties⁴⁰⁴⁹. It suggested that fire drills should be held six monthly for residential premises⁴⁰⁵⁰.

Management’s expectations

7. Alan Balmer regarded it as a reasonable precaution for a care home to have refresher training in matters of fire safety for staff and drills twice a year. There was no particular reason why this should not have been done at Rosepark before January 2004⁴⁰⁵¹.

8. At the time of the fire in January 2004, Thomas Balmer understood that the training which the staff at Rosepark received comprised⁴⁰⁵²:

8.1. two fire drills a year, at specified times⁴⁰⁵³; and

8.2. “continual use of” the video.

He believed that “training” was delivered in the context of the drills.

⁴⁰⁴⁸ Pro 256, p. 43.

⁴⁰⁴⁹ Pro 221, p. 17; Thomas Balmer, 4 May 2010, pm, pp. 9-12.

⁴⁰⁵⁰ Pro 221, p. 17; Thomas Balmer, 4 May 2010,

⁴⁰⁵¹ Alan Balmer, 3 June 2010, pm, pp. 27-28.

⁴⁰⁵² Thomas Balmer, 4 May 2010, pm, pp. 27-28.

⁴⁰⁵³ Thomas Balmer, 4 May 2010, am, p. 91.

9. Mr Balmer believed that drills were held at about 2 pm and 8 pm (or 1.30 and 8.30). Nightshift staff were expected to come in early to attend the latter. They would be told that there was going to be a fire drill half an hour before the shift started and asked to come in to attend that⁴⁰⁵⁴.

Actual arrangements at Rosepark

3. The actual arrangements for training and drilling of staff at Rosepark have been described in Chapter 20. These arrangements were woefully inadequate.

3.1. The only fire training which staff received was on induction⁴⁰⁵⁵. For most members of staff that was the only fire training they had received⁴⁰⁵⁶.

3.2. The training at induction principally involved watching the video passively and completing the questionnaire⁴⁰⁵⁷. There was little evidence of this being used an opportunity for substantive discussion or any attempt to relate what was seen in the video to the circumstances of Rosepark⁴⁰⁵⁸. The way the questionnaire was administered typically did not really confirm that staff had absorbed what they had been told from the video⁴⁰⁵⁹.

3.3. No refresher training was provided for staff⁴⁰⁶⁰.

3.4. Ms Meaney, who delivered the induction training, had herself no expertise in fire safety. She herself stated that she could not do more than provide “fire awareness”.

⁴⁰⁵⁴ Thomas Balmer, 29 April 2010, am, pp. 87-89; 4 May 2010, pm pp. 27-28, 35-36, 36-38.

⁴⁰⁵⁵ Chapter 20, paras. 38-39.

⁴⁰⁵⁶ Some staff who had been employed at Rosepark for a long time could have attended one or more of Mr McNeilly’s lectures and also attended the introduction of the fire safety video.

⁴⁰⁵⁷ Chapter 20, paras.33-37

⁴⁰⁵⁸ Anne Jarvie, 21 July 2010, am, pp. 34-40.

⁴⁰⁵⁹ Anne Jarvie, 21 July 2010, am, pp. 46-54.

⁴⁰⁶⁰ Chapter 20, para. 38.

- 3.5. There was no training in the use of fire extinguishers. The element of the video about fire extinguishers was inadequate to give staff confidence and competence to carry out first aid fire fighting.
- 3.6. During the three years before the fire, fire drills had not been held twice a year or every six months. Drills were held haphazardly⁴⁰⁶¹.
- 3.7. Night staff were neglected. The night staff who gave evidence had never had the benefit of a fire drill at Rosepark⁴⁰⁶². This left them very vulnerable⁴⁰⁶³.
4. These inadequacies were reflected in the training and drilling of the staff who were on duty on the night of 30-31 January 2004⁴⁰⁶⁴.
- 4.1. Isobel Queen, Irene Richmond and Yvonne Carlyle had each been shown the video once. Apart from that none of them had received any fire training at Rosepark. Brian Norton had received no fire training at Rosepark.
- 4.2. None of them had experienced a fire drill at Rosepark.
5. Any of these members of staff might have been called upon to engage in first aid fire-fighting. None had been given adequate training at Rosepark in the use of fire extinguishers. The information provided on the video was inadequate in that regard.
6. Isobel Queen was expected to be the nurse in charge of night duty. In that regard, she was expected to take command of the situation, to direct the other staff, and to take effective decisions. In particular, it was essential that she identify immediately and accurately the area of the Home in which the alarm had been activated. Isobel Queen could not even recall being told the fire procedure. She had no real understanding of the zoning arrangements. She had not received training in her role as nurse in charge.

⁴⁰⁶¹ Chapter 20, paras. 50-53.

⁴⁰⁶² Chapter 20, paras. 61-62.

⁴⁰⁶³ Anne Jarvie, 21 July 2010, am, pp. 75-80.

⁴⁰⁶⁴ Chapter 20, paras. 63-74.

Had this precaution been taken, the deaths might have been avoided.

7. The uncertainty and confusion which may be seen on the CCTV footage is just what one might expect to happen in a Home which did not have an effective training regime⁴⁰⁶⁵. Staff who had been effectively trained and drilled would have been expected to respond in a significantly more decisive manner⁴⁰⁶⁶. Had staff been effectively and appropriately trained, the following is the likely course of events even assuming staff followed the emergency procedure which was prescribed at Rosepark.

7.1. Isobel Queen would have immediately identified correctly the area of the Home where the alarm had been activated. She herself attributed the error which she made to a lack of training⁴⁰⁶⁷. Further, had she been properly trained she could have had no misapprehension as to her role and would have been equipped to act effectively in that context.

7.2. She would immediately have dispatched two members of staff to that area.

7.3. Those members of staff would have arrived at the location in time to engage in emergency fire-fighting.

7.4. If they had been effectively trained in the use of fire extinguishers, it could be anticipated that the fire might have been extinguished at this stage⁴⁰⁶⁸.

7.5. Even if they had not been able to do this, well-trained staff would have shut the cupboard door and the bedroom doors in the area. This would have bought material additional time and provided temporary protection to the residents in their rooms⁴⁰⁶⁹.

7.6. Even applying the procedure which was followed at Rosepark, one of the members of staff would have returned to tell Isobel Queen that there was a fire

⁴⁰⁶⁵ Thomas Balmer, 6 May 2010, am, pp. 113-114.

⁴⁰⁶⁶ Thomas Balmer, 6 May 2010, am, p. 119.

⁴⁰⁶⁷ Isobel Queen, 3 December 2009, am, p. 36.

⁴⁰⁶⁸ Chapter 38(4)(A), paras. 6-9.

⁴⁰⁶⁹ Chapter 38(4)(B), para. 10

and a 999 call would have been made. The arrival of the fire service would have been significantly expedited as compared with the events of the night.

8. In these circumstances, some or all of the deaths might have been avoided

Note to Chapter 44(4)(B)

On behalf of the Balmer Partnership no exception is taken to the finding, namely that it would have been a reasonable precaution for staff to have been provided with adequate training and drills in the action required of them in an emergency. It is however stated that it is too speculative and inappropriate to reach the conclusion that, had this been taken, some or all of the deaths might have been avoided.

I do not agree with this submission. I am of the view that, had adequate training and drills been provided on the basis set out in this Chapter, it is a proper and reasonable conclusion that some or all of the deaths might have been avoided.

My findings are supported by SF&R.

The submissions on behalf of the Care Commission do not call for comment.

On behalf of Isobel Queen it was agreed that the staff at Rosepark, and in particular the night shift, did not have adequate fire safety training. The only issue is in regard to what might have happened in this particular fire had the staff been better trained. Specifically the question is posed “Would the staff have tackled the developing fire effectively or indeed, could they reasonably have been expected to tackle the developing fire at all?”. Reference is made to my finding of picking up a fire extinguisher while running to the scene of the fire. I was referred to the evidence of Mr Mortimore who, it was said, had no qualifications in fire fighting, and certainly had no practical experience in fighting fires. Brian Sweeney, the Head of the Strathclyde Fire and Rescue, on 13 July 2010 pm p 99 referred to thermal pressure which would come from a number of aerosols in a confined space. This would be very dangerous. His advice, based on that information, would be to stay well clear. This was on the basis that staff knew there were aerosols in the cupboard and the

possibility of their exploding. However, if the staff had been properly trained, aerosols would not have been stored in the cupboard. It seems to me to be entirely reasonable to say that well trained staff would have gone to the area identified as being the source of the fire with a fire extinguisher which was available to be uplifted on the very short journey from the fire alarm panel to the identified zone. It seems to me reasonable to say that, if smoke was found to be seeping from a cupboard, the door of which was ajar, well trained staff would have sprayed the contents of the fire extinguisher into the cupboard. If the nurse in question has any qualms about taking that course, well trained staff would have closed the cupboard door and the open bedroom doors.

It is important, when considering this issue again to appreciate that the court is considering issues which “might have avoided” the deaths had staff been properly trained.

CHAPTER 44(4)(C): INSTRUCTION FOR ISOBEL QUEEN IN RELATION TO THE NEW FIRE ALARM PANEL

Reference is made to Chapter 9.

I have made the following findings at RP4.3:

It would have been a reasonable precaution for Isobel Queen to have been given instruction in relation to the new fire alarm panel.

Had this precaution been taken some or all of the deaths might have been avoided.

It would have been a reasonable precaution for Isobel Queen to be given instruction in relation to the new fire alarm panel.

1. The new fire alarm panel operated on the same principles as the old one. But it looked significantly different, and the steps which required to be taken to undertake various operations were different⁴⁰⁷⁰. Further, even a member of staff familiar with the existing zoning arrangements, faced with a new panel could not know, without instruction, whether or not the zoning arrangements had also changed.

2. That being the case, anyone who was to be a nurse in charge should have been given sufficient instruction in the new panel to enable him or her to interpret it accurately and quickly and to operate it appropriately in an emergency⁴⁰⁷¹.

3. This would have involved at least:

3.1. Drawing the new panel to the attention of any nurse who was to be a nurse in charge.

⁴⁰⁷⁰ The two panels are described in Chapter 9, paras. 2-3 and 4-8.

⁴⁰⁷¹ Colin Todd, 28 July 2010, pm, pp. 75-76.

- 3.2. Explaining to the nurse in charge that, although the panel had changed, the zoning arrangements had not changed.
 - 3.3. Giving the nurse in charge sufficient information to enable her to interpret the indications on the panel accurately.
 - 3.4. Giving the nurse in charge sufficient information to enable her to carry out the basic operations at the panel – silencing and resetting - correctly.
4. None of these steps was taken. Isobel Queen was ignorant of the existence of the new panel until she was confronted by it when the fire alarm sounded on 31 January 2004.

Had this precaution been taken some or all of the deaths might have been avoided.

5. Had Isobel Queen received such instruction in relation to the new panel, she is much more likely to have accurately identified the area of the Home where the alarm had been activated. Isobel Queen identified “being orientated to the fire panel” as the main item of training which would have made a difference to the way she responded⁴⁰⁷².
6. In that event, some or all of the deaths might have been avoided for the reasons set out above⁴⁰⁷³.

⁴⁰⁷² Isobel Queen, 3 December 2009, am, p. 38.

⁴⁰⁷³ Chapters 44(4)(A) and (B).

Note to Chapter 44(4)(C)

It was submitted on behalf of the Balmer Partnership that my proposed finding in respect of the reasonable precaution is reasonable and appropriate. It is again submitted that the conclusion that, had this precaution been taken, some or all of the deaths might have been avoided, did not take into account human frailty and panic which can arise in a fast moving emergency situation. It was suggested I should not make this conclusion in light of the other unusual factors involved in this case. I do not agree with that submission.

The Care Commission has no adverse comment to offer.

This finding is supported on behalf of Isobel Queen. I was referred to the evidence of Michael Gray, Consultant Ergonomist of 21 April 2010 am 120.

CHAPTER 44(5): EARLY INVOLVEMENT OF THE FIRE BRIGADE

Reference is made to Chapters 19, 20, 25 (paragraphs 65-79 and note to Chapter 25) and 28 (paragraph 182).

In RP5 I have made findings that the following would have been reasonable precautions:

RP5.1 An immediate call to the Fire Brigade when the fire alarm sounded and, to that end:-

5.1.1 An Emergency Procedure which provided for an immediate call to the Fire Brigade; and

5.1.3 Automatic transmission of a signal to the Fire Brigade in the event that the fire alarm was activated.

RP5.2 The exhibition, on prominent display in Matron's office, of a laminated sheet specifying clearly what information should be given to the Control Operator by the member of staff who calls the Fire Brigade;

RP5.3 To have had the callout slip received by fire fighters at Bellshill Fire Station display the access address of the premises which is the subject of the emergency call at the top of the callout slip.

RP5.4 Classification by Strathclyde Fire and Rescue Service of Rosepark Care Home as "special risk" under Operational Technical Note Index No. A6 such that each watch at Bellshill Fire Station visited it annually;

RP5.5 For E031 to have attended at Rosepark Avenue instead of New Edinburgh Road.

Had these reasonable precaution been taken,

- (i) the delay of nine minutes between the sounding of the fire alarm and the calling of the Fire Brigade would have been avoided; and**
- (ii) the delay of 4 minutes 25 seconds as the result of EO31 deploying to New Edinburgh Road instead of Rosepark Avenue would have been avoided.**

As a result, the deaths of Isabella MacLachlan, Margaret Gow, Isabella MacLeod and Robina Burns might have been avoided. The earlier deployment would not have been sufficiently early for any of the deceased who were found dead at the scene to have survived:

1. Evidence was given by Sir Graham Meldrum, HM Chief Inspector of Fire Services for Edinburgh, on the mobilisation of appliances of Strathclyde Fire & Rescue Service, and the risk categorisation of Rosepark.
2. In the case of a residential care home, where one is dealing with a large life risk to elderly people, it is absolutely essential that the home's fire procedure should require a call to the Fire Brigade immediately the fire alarm sounds⁴⁰⁷⁴.
3. There are no circumstances in which one would condone a procedure that involved sending members of staff to look and see if there was a fire before calling the Fire Brigade. Any delay would be a matter of grave concern⁴⁰⁷⁵.
4. As a matter of practice, such is the serious life risk in a residential care home, the priority should be to call the Fire Brigade and then start evacuating the residents⁴⁰⁷⁶. Time is of the essence because even a small fire is capable of generating large volumes of smoke which could result in casualties⁴⁰⁷⁷.
5. It would have been a reasonable precaution for the call to SFRS to have been made immediately the fire alarm went off at Rosepark. The failure to call SFRS immediately was a contributory factor in the overall delay to the commencement of fire fighting operations⁴⁰⁷⁸.
6. To that end:-
 - 6.1. The Emergency Plan at Rosepark should have provided for an immediate call to the Fire Brigade.
 - 6.2. It would have been a reasonable precaution to have installed arrangements for automatic transmission of a signal to the Fire Service in the event of the fire alarm being activated. This would not have required any alteration to the existing fire alarm system and would not have been costly⁴⁰⁷⁹.

⁴⁰⁷⁴ Martin Shipp, 15 April 2010, pm, p. 6; Colin Todd, 26 July 2010, am, p. 80; pp. 137-141; Sir Graham Meldrum, 3 August 2010, am, pp92-95; 6 August 2010, pm, p94;

⁴⁰⁷⁵ Sir Graham Meldrum, 3 August 2010, am, pp95-96;

⁴⁰⁷⁶ Sir Graham Meldrum, 3 August 2010, am, pp96-98;

⁴⁰⁷⁷ Sir Graham Meldrum, 3 August 2010, am, p101; Production 1408, p7, paragraph 51;

⁴⁰⁷⁸ Sir Graham Meldrum, 3 August 2010, am, p94

⁴⁰⁷⁹ Colin Todd, 26 July 2010, pm, p. 7.

7. Since time is such a significant factor in any call-out to a residential care home, it is equally critical that any additional information pertaining to access should be communicated accurately by staff.

8. It would have been a reasonable precaution to have had on prominent display in matron's office a laminated sheet specifying clearly what information should be given to the Control Room operator by the member of staff who calls the Fire Brigade.

9. Such a notice would facilitate the transmission of accurate information about the incident, including access to the home, in an otherwise stressful set of circumstances⁴⁰⁸⁰. Any emergency plan needs to provide clear instructions on how the Fire Brigade will be called in an emergency, and staff need to be trained to understand the arrangements for calling the Fire Brigade⁴⁰⁸¹. Staff were given no training on what information should be given to the control room operator by the member of staff who calls the Fire Brigade.

10. If the reasonable precaution set out in paragraph 8 hereof had been taken, Isobel Queen would not, in the excitement of the moment, when making the 999 call, have stated "Rosepark Gardens" instead of "Rosepark Avenue"⁴⁰⁸². I am not prepared to accept the proposal by the Crown that a reasonable precaution would have been for Isobel Queen to have provided to the control room officer the correct address of Rosepark Home, namely Rosepark Avenue in these circumstances. It would not have happened if the second reasonable precaution which I have set out in paragraph 8 had been in place.

11. However, this alone would not have been enough. The information provided to the Fire Brigade requires to be relayed effectively to operational staff. The control room relays information to operational staff by way of the turnout slip (known as the "mobilisation message") which is production 928. Operational staff receive that at the Fire Station. The mobilisation message gave the address "Rosepark Nursing Home, 261 Edinburgh Road, Fallside, Uddingston". In his recommendations following his examination of the circumstances of the fire Sir Graham Meldrum

⁴⁰⁸⁰ Ann Jarvie, 21 July 2010, am, pp121-122;

⁴⁰⁸¹ Cf, Production 1120, pp31, 33;

⁴⁰⁸²⁴⁰⁸² Isobel Queen, 2 December 2009, pm, pp29-30

recommended (production 1408 Appendix 3 Recommendation 5) “Information printout received at the Fire Station relating to the fire call should be reviewed in order to display the additional information in a more prominent manner”. It was clearly his opinion that the access address was not in an acceptable position. In fact under the heading “Add Info” was an entry “entry via Rosepark Gardens”. This entry was nearly three inches below the address in the turnout slip. It was clearly the opinion of Sir Graham Meldrum that the access information was not in an acceptable position. I consider, following Sir Graham Meldrum’s recommendation that it would have been a reasonable precaution if the access address, and not the postal address, had been given at the top of the turnout slip.

12. Station Officer Campbell advised his crew that they were going to “Rosepark Care Home New Edinburgh Road”. This address was confirmed as the address of Rosepark Care Home at the top of the turnout slip and from his own knowledge of the whereabouts of Rosepark.

13. It has been suggested by the Crown that it would have been a reasonable precaution for Station Officer Campbell to have read the additional information on the turnout slip and acted in accordance with it. In view of the comments of Sir Graham Meldrum, it cannot be said that, had Station Officer Campbell read the turnout slip he would have noticed that the address was other than New Edinburgh Road. This was the address given at the top of the turnout slip and this was confirmed from his own knowledge of where Rosepark Care Home was situated. There was evidence that the VMDS system on board was not working and he had been trying to access it during the journey. The journey time was 109 seconds. I am not prepared to accept this proposal by the Crown.

14. I am not prepared to accept the proposal by the Crown that a further reasonable precaution would have been for Leading Fire Fighter McDiarmid of EO12 to have read and taken account of the additional information about access contained in the turnout slip which he received at Hamilton Fire Station. The same comments which I made in respect of Station Officer Campbell apply. Additionally Leading Fire Fighter McDiarmid did in fact read the additional information about access, but turned to New Edinburgh Road when he saw EO31 already in position at the New Edinburgh Road entrance. This was a reasonable action on his part.

15. It is reasonable to conclude, had Station Officer Campbell and other members of Blue Watch been familiar with the premises through a process of annual familiarisation, it is probable that EO31 would have attended at the Rosepark Avenue entrance to the Care Home⁴⁰⁸³, which was considered on the night of the fire by Fire Fighter Buick to be the “better entrance” (see Chapter 25, paragraph 76). As a result the appliances were moved from New Edinburgh Road to Rosepark Avenue (see paragraph 182 of chapter 28).

16. With the benefit of hindsight, it would have been reasonable for Rosepark Care Home to have been classified as “special risk” by SF&R under OTN A6 such that each watch at Bellshill Fire Station visited it annually. If this risk classification had been given, there would have been an annual visit by each watch⁴⁰⁸⁴. Those with local knowledge appear to have had little difficulty attending at Rosepark Avenue⁴⁰⁸⁵. No member of Blue Watch had been on a familiarisation visit to Rosepark since 1999. Had the members of Blue Watch been visiting Rosepark annually on familiarisation visits, they would have known that the “better entrance” was Rosepark Avenue. SF&R accept the main advantage of designating Rosepark “special risk”.

17. The justification for categorising Rosepark as “special risk” related to the number of residents to staff at night, and the degree to which residents would require assistance in the event of evacuation⁴⁰⁸⁶.

18. Although Rosepark Care Home is still not categorised as “special risk”, having regard to section 2.4.1 of Operational Technical Note No A124, issued by Strathclyde Fire & Rescue Service in November 2008, each watch now visits each residential care home in the station area at least once in every calendar year⁴⁰⁸⁷.

⁴⁰⁸³ Cf Submissions of SF&R, p3, numbered para. 3;

⁴⁰⁸⁴ Sir Graham Meldrum, 3 August 2010, am, pp61-64;

⁴⁰⁸⁵ Robert Deans, 5 February 2010, pm, p91;

⁴⁰⁸⁶ Sir Graham Meldrum, 3 August 2010, am, pp58-61

⁴⁰⁸⁷ Brian Sweeney, 13 July 2010, am, pp31-32;

Had these precautions been taken the deaths of Isabella MacLachlan, Margaret Gow, Robina Burns and Isabella MacLeod might have been avoided.

Delay and its consequences

1. There was a delay of nine minutes between the sounding of the alarm and the 999 call by Isobel Queen⁴⁰⁸⁸.
2. If the call had been made immediately the actual times of rescue of the residents who were brought out of corridors 3 and 4, but subsequently died, would have been advanced by a commensurate period of time⁴⁰⁸⁹.
3. EO31 attended at New Edinburgh Road at 0442.12 hours. The CCTV recorded Fire Fighter Buick entering Rosepark at 0444.26. It accordingly took him 2 minutes 14 seconds from the time he left his vehicle until he entered the premises. Had EO31 gone immediately to Rosepark via Rosepark Avenue and not New Edinburgh Road that delay would have been avoided. Fire Fighter Buick was seen on CCTV to leave Rosepark to return to EO31 in New Edinburgh Road after his initial investigation with Station Officer Campbell at 0447.26. The lights of EO31 arriving at the Rosepark Avenue entrance are seen on the CCTV at 0449.37. Accordingly there was a delay of 2 minutes 11 seconds before Fire Fighter Buick returned to Rosepark with EO31. A total period of 4 minutes 25 seconds was accordingly lost as a result of EO31 deploying to New Edinburgh Road instead of Rosepark Avenue (see Chapter 25, paragraphs 65-79, and Chapter 28 paragraph 182).
4. EO12 deployed to Edinburgh Road at 0447.06, seconds before Fire Fighter Buick returned to EO31 in New Edinburgh Road and directed the appliance moved to the Rosepark Avenue entrance. EO12 had intended going to the Rosepark entrance, but went to the New Edinburgh Road entrance when EO31 was seen there. EO12 immediately followed EO31 to the Rosepark Avenue entrance. The delay in EO12 redeploying to Rosepark Avenue was minimal. However, had EO31 deployed initially to Rosepark Avenue, EO12 would have also gone there.
5. Had the crew of EO31 been familiar with the access to Rosepark as a result of annual familiarisation visits, it is probable that EO31 would have attended at

⁴⁰⁸⁸ Sir Graham Meldrum, 3 August 2010, am, pp93-94

⁴⁰⁸⁹ Sir Graham Meldrum, 3 August 2010, pm, pp93-94;

Rosepark Avenue entrance at 0442.12. There would not then have been a delay of 4 minutes 25 seconds in EO31 deploying to the Rosepark Avenue entrance as set out in paragraph 3 supra.

6. I accept the Crown submission that earlier deployment would not have been sufficiently early for any of the deceased who were found dead at the scene to have survived.

Effect of earlier rescue

7. Professor John Kinsella gave evidence about the effects on human health of exposure to the products of combustion. Professor Kinsella also gave evidence about the consequences of earlier rescue of the four residents who were rescued alive from corridors 3 and 4 but subsequently died. Professor Kinsella was plainly well qualified to offer opinion evidence on these matters⁴⁰⁹⁰. I accept his evidence about the effect of earlier rescue on those residents and have found accordingly.

8. The percentage carboxyhaemoglobin levels of the residents in corridors 3 and 4 at the time of rescue, and the times when earlier rescue might have made a difference, were estimated by Professor Purser. Professor Purser was plainly qualified to offer opinion evidence on those matters. His estimates should be accepted as reasonable.

Effects on human health of exposure to products of combustion

9. Smoke inhalation is a major cause of mortality in fire victims. The immediate effects of mortality at a fire scene are explained in Professor Kinsella's report, production 1782⁴⁰⁹¹.

10. As oxygen is consumed in a fire carbon monoxide is produced in increasing quantities. Carbon monoxide combines with haemoglobin, which transports oxygen around the body. Once combined the carbon monoxide stays combined with the haemoglobin for longer than oxygen. As a consequence the ability of the haemoglobin to deliver oxygen to the body tissues is diminished. The higher the percentage carboxyhaemoglobin, the less oxygen breathed in will be delivered to the tissues⁴⁰⁹².

⁴⁰⁹⁰ John Kinsella, 21 June 2010, am, pp2-17;

⁴⁰⁹¹ Page 7;

⁴⁰⁹² John Kinsella, 21 June 2010, am, pp18-19;

11. Some of the carbon monoxide inhaled will combine with cells in the body where oxygen is used and impair the utilisation of oxygen by the body tissues. Thus, in a fire, not only are people breathing in less oxygen, they are transporting less oxygen to the tissues, and the tissues are able to use less oxygen because of the blocking effect of the carbon monoxide⁴⁰⁹³.
12. An average, non-smoking, city dweller will have an average percentage carboxyhaemoglobin of 2%, and certainly not higher than 5%. A heavy smoker could get as high as 10%, but more normally about 5%⁴⁰⁹⁴.
13. The severity of smoke inhalation is best estimated by measuring the blood carboxyhaemoglobin⁴⁰⁹⁵. In terms of outcome a carboxyhaemoglobin level in excess of 10% indicates that there has been smoke inhalation. A level of 20% indicates severe smoke inhalation⁴⁰⁹⁶. However, the chances of survival of an incident of smoke inhalation resulting in a carboxyhaemoglobin level up to, but not exceeding, 40% are high⁴⁰⁹⁷. A level in excess of 40% presents a much higher risk, and a level in excess of 50% presents a very high risk of mortality⁴⁰⁹⁸.
14. In relation to the effects of inhalation of the products of combustion, age has implications. With age you have increasing numbers of other medical problems known as co-morbidities. With age, there is a progressive reduction in lung volumes. Age also decreases physiological function and reserve⁴⁰⁹⁹. Cardiovascular, respiratory and neurological diseases greatly increase the risk of dying from smoke inhalation⁴¹⁰⁰. However, the presence of age and co-morbidity really of influence in the subsequent clinical course in hospital rather than at the scene where severity of smoke inhalation is what matters⁴¹⁰¹.
15. Professor Kinsella agreed with Professor Purser that a level at the scene below 40% carboxyhaemoglobin indicated good prospects of survival. With a level in

⁴⁰⁹³ John Kinsella, 21 June 2010, am, pp19-20;

⁴⁰⁹⁴ John Kinsella, 21 June 2010, am, pp32-33;

⁴⁰⁹⁵ John Kinsella, 21 June 2010, am, p45; Production 1782, p8;

⁴⁰⁹⁶ John Kinsella, 21 June 2010, am, p46; Production 1782, p8;

⁴⁰⁹⁷ David Purser, 14 June 2010, pm, p84;

⁴⁰⁹⁸ John Kinsella, 21 June 2010, am, pp35-39;

⁴⁰⁹⁹ John Kinsella, 21 June 2010, am, pp42-44;

⁴¹⁰⁰ John Kinsella, 21 June 2010, am, p48;

⁴¹⁰¹ John Kinsella, 21 June 2010, am, pp59-61;

excess of 50% at the scene death was likely. The outcome at levels between 40% and 50% was uncertain⁴¹⁰².

16. The back calculation of carboxyhaemoglobin levels in respect of Isabella MacLachlan and Margaret Gow caused Professor Purser to conclude that there was materially more smoke penetration into corridor 3 than had pertained in the BRE Test 1⁴¹⁰³. It was accordingly the data from these back calculations that Professor Purser used in his consideration of the prospects of survival of Isabella MacLachlan and Margaret Gow in the event of earlier rescue⁴¹⁰⁴.

Outcomes of earlier rescue of those rescued alive from Rosepark

Isabella MacLachlan

17. Isabella MacLachlan had pre-morbidities of dementia, osteoarthritis and emphysema⁴¹⁰⁵.

18. Isabella MacLachlan was rescued at about 0455 hours⁴¹⁰⁶.

19. Professor Purser estimated that her carboxyhaemoglobin level at the time of rescue was between 42% and 55%⁴¹⁰⁷.

20. Any earlier rescue would have improved her chances of survival⁴¹⁰⁸.

21. Her time of rescue, if an immediate call to the Fire Brigade had been made, would have been about 0446 hours.

22. Mrs MacLachlan might have survived if she had been rescued at, or before, a point when a her carboxyhaemoglobin level was about 40%⁴¹⁰⁹.

23. In the opinion of Professor Purser 25 minutes after ignition at 0428 hours, namely 0453 hours, was the point when Mrs MacLachlan's carboxyhaemoglobin level was about 40%⁴¹¹⁰.

⁴¹⁰² John Kinsella, 21 June 2010, am, p50; David Purser, 14 June 2010, am, pp52-53;

⁴¹⁰³ David Purser, 15 June 2010, am, pp43-48; Production 2053, para. 3.5.1;

⁴¹⁰⁴ David Purser, 15 June 2010, am, pp45-46; see paras. 26-46 below:

⁴¹⁰⁵ John Kinsella, 21 June 2010, am, p116; Production 1782, p11;

⁴¹⁰⁶ David Buick, 7 December 2010, am, pp113-114; David Ferguson, 8 December 2010, pm, p11;

⁴¹⁰⁷ David Purser, 15 June 2010, am, pp52-53;

⁴¹⁰⁸ David Purser, 15 June 2010, am, p64;

⁴¹⁰⁹ David Purser, 14 June 2010, am, pp64-65, 67;

24. If Mrs McLachlan had been rescued about 8 minutes earlier than she was, at 0447 hours, her estimated carboxyhaemoglobin level would have been about 27%⁴¹¹¹.

25. Mrs MacLachlan's outcome was much more likely to be favourable at that level of carboxyhaemoglobin notwithstanding her emphysema⁴¹¹².

26. Accordingly, even with the first fire appliances attending at New Edinburgh Road, Mrs MacLachlan's death might have been avoided if the Fire Brigade had been called immediately.

27. By parity of reasoning, if Mrs MacLachlan had been rescued by BA team 2 any earlier, her death might have been avoided.

Margaret Gow

28. Margaret Gow was rescued at about 0506 hours⁴¹¹³.

29. Professor Purser estimated that her carboxyhaemoglobin level at the time of rescue was between 44% and 53%⁴¹¹⁴.

30. When admitted to hospital Margaret Gow was suffering from hypoxic brain damage, a typical effect of exposure to asphyxiant gases⁴¹¹⁵.

31. She had significant co-morbidity in the form of left ventricular failure, atrial fibrillation and urinary infection⁴¹¹⁶.

32. When rescued Mrs Gow had reached an advanced state in the process of her smoke inhalation injury⁴¹¹⁷. She was found probably just before going into respiratory and cardiac arrest⁴¹¹⁸.

⁴¹¹⁰ David Purser, 14 June 2010, am, pp67-68; Production 2053, p37, Figure 11, after adjustment to allow for Professor Purser's back calculation of % carboxyhaemoglobin at rescue;

⁴¹¹¹ David Purser, 15 June 2010, am, pp69-70

⁴¹¹² John Kinsella, 21 June 2010, am, pp118-123; David Purser, 15 June 2010, am, p74;

⁴¹¹³ David Buick, 7 December 2009, am, pp127-128; David Ferguson, 8 December 2009, pm, pp15-16;

⁴¹¹⁴ David Purser, 15 June 2010, am, pp55-56;

⁴¹¹⁵ David Purser, 15 June 2010, am, pp56-57;

⁴¹¹⁶ John Kinsella, 21 June 2010, am, 21 June 2010, am, pp124-125; Production 1782, p12;

⁴¹¹⁷ John Kinsella, 21 June 2010, am, p125;

33. Rescue with a carboxyhaemoglobin level below 40% would have a potentially better outcome⁴¹¹⁹, although because of the co-morbidities, and in particular the left ventricular failure, she was still at a higher risk of dying⁴¹²⁰.

34. Her time of rescue, if an immediate call to the Fire Brigade had been made, would have been about 0457 hours.

35. If she had been rescued at 0458 hours, 8 minutes earlier than she was, then Mrs Gow's carboxyhaemoglobin level would have been about 30.5%. It is possible that she would have survived although not necessarily so⁴¹²¹.

36. Since earlier rescue would still improve the chances of survival⁴¹²², even with the first fire appliances attending at New Edinburgh Road, Mrs Gow's death might have been avoided if the Fire Brigade had been called immediately (because of the delay of nine minutes between the sounding of the alarm and the call to the Fire Brigade).

37. By parity of reasoning, it follows that if Mrs Gow had been rescued by BA team any earlier, her death might have been avoided.

Robina Burns

38. Robina Burns was rescued at about 0539 hours⁴¹²³.

39. Her time of rescue, if the desiderated precautions had been taken, would have been at about 0525 hours.

40. Mrs Burns' prognosis on arrival at hospital was poor. She had developed a myocardial injury and that created a situation in which there was a very high risk of death⁴¹²⁴.

41. Professor Purser estimated that Mrs Burns' carboxyhaemoglobin level at the time of rescue was between 43% and 49%⁴¹²⁵.

⁴¹¹⁸ John Kinsella, 21 June 2010, am, pp127-128;

⁴¹¹⁹ David Purser, 15 June 2010, am, p64;

⁴¹²⁰ John Kinsella, 21 June 2010, am, pp129-130; Production 1782, p13;

⁴¹²¹ David Purser, 15 June 2010, am, p73;

⁴¹²² David Purser, 15 June 2010, am, p64;

⁴¹²³ Gordon Hector, 14 December 2009, am, pp64-67;

⁴¹²⁴ John Kinsella, 21 June 2010, am, pp79-82;

42. Professor Kinsella agreed that the range of 43% to 49% was clinically correct⁴¹²⁶.

43. Rescue of Mrs Burns at an earlier stage would have reduced her exposure and improved her chances of survival, particularly if she could have been rescued before achieving a blood concentration of 40% COHb⁴¹²⁷.

44. Rescue at any time before approximately 55 minutes after ignition (i.e. 0523 hours) would have resulted in a % COHb level below 40%⁴¹²⁸.

45. Since a rescue time of 0525 hours lies only two minutes outwith Professor Purser's estimate of when she could have been rescued with a %COHb level below 40% there is a possibility that Mrs Burns' death could have been avoided by rescue at that time.

46. As a result of conditions in corridor 4, rescue before about 45 minutes (i.e. 0513 hours) would have resulted in a significant increase in exposure to harmful products of combustion. This would not, however, result in a blood level exceeding 40COHb provided the corridor exposure did not exceed 3 minutes⁴¹²⁹.

47. It took about one 1 minute to convey Mrs Burns from her room to the foyer⁴¹³⁰.

Isabella MacLeod

48. Isabella MacLeod was rescued by BA team 1 (of E031) at about 0509 hours⁴¹³¹.

49. Her time of rescue, if an immediate call to the Fire Brigade had been made, and E031 had attended at Rosepark Avenue, would have been at about 0455 hours.

50. Professor Purser estimated that Mrs MacLeod's %COHb at the time of rescue was between 43% and 57%⁴¹³².

⁴¹²⁵ David Purser, 14 December 2009, am, p76;

⁴¹²⁶ John Kinsella, 21 June 2010, am, pp73-76;

⁴¹²⁷ David Purser, 9 August 2010, am, pp4-5; Production 2075, p6;

⁴¹²⁸ David Purser, 9 August 2010, am, pp6-7; Production 2075, p6;

⁴¹²⁹ David Purser, 9 August 2010, am, pp7-9;

⁴¹³⁰ Gordon Hector, 14 December 2010, am, p64;

⁴¹³¹ James Clark, 9 December 2009, am, pp41-50; Colin Mackie, 10 December 2009, pm, pp94-95;

⁴¹³² David Purser, 14 June 2010, pm, pp76-77;

51. Isabella MacLeod was intubated at the scene and therefore received a much more efficient intake of oxygen⁴¹³³. She had a cardiac arrest, probably shortly before she was rescued⁴¹³⁴. Accordingly, in Professor Kinsella's opinion, the true level was likely to be at the upper end of her % COHb range⁴¹³⁵.

52. Rescue of Mrs MacLeod at an earlier stage would have reduced her exposure and improved her chances of survival, particularly if she could have been rescued before achieving a blood concentration of 40% COHb⁴¹³⁶.

53. For that to have occurred Mrs MacLeod would need to have been rescued by, at the latest, 0503 hours (or 6 minutes earlier than her actual time of rescue), assuming a period of no more than 2 minutes spent in corridor 4⁴¹³⁷.

54. The desiderated rescue time falls 8 minutes before 0503 hours, and before Professor Purser estimated that Mrs MacLeod's bedroom door was likely to have been penetrated (at about 35 minutes after ignition, or 0503 hours)⁴¹³⁸. In that situation, even allowing for the fact that Professor Kinsella was of the opinion that Mrs MacLeod's % COHb was probably nearer the upper end of the range offered by Professor Purser, it is possible that Mrs Macleod's death would have been avoided by earlier rescue.

55. In view of Professor Kinsella's opinion concerning the likely point in the range of Mrs MacLeod's %COHb, however, it is unsafe to conclude on the evidence that a saving of only nine minutes would have resulted in a successful outcome.

⁴¹³³ Production 1727; Joint Minute, part 1, paragraph 1;

⁴¹³⁴ John Kinsella, 21 June 2010, pm, pp104-108;

⁴¹³⁵ John Kinsella, 21 June 2010, am, pp101-103;

⁴¹³⁶ David Purser, 9 August 2010, am, pp4-5; Production 2075, p6;

⁴¹³⁷ David Purser, 9 August 2010, am, pp5-6; Production 2075, p6;

⁴¹³⁸ David Purser, 9 August 2010, am, p27;

Note on Chapter 44(5)

On behalf of the Balmer Partnership no alterations are proposed to findings which I have made. It is observed that the officers of SF&R who attended the scene did everything in good faith and with dedication and heroism. I concur.

As far as SF&R are concerned I understand that no issue with the first and second reasonable precautions proposed. As far as the fourth reasonable precaution namely (classification by SF&R of Rosepark Care Home as “special risk” under OTN A6 such that each watch at Bellshill Fire Station visit it annually) it was submitted that there is confusion between, on the one hand, whether a building qualifies as “special risk” in terms of OTN A6 and, on the other hand, whether the criteria contained within OTN A6 was wholly appropriate.

It was pointed out that “special risk” contained within OTN A6 involved two elements namely the home required to be of “substantial size” and present an “abnormal risk”. It was submitted that the home did not match either criterion. Sir Graham Meldrum in his evidence effectively conceded that the attitude of SF&R in not categorising such premises as “special risk” was not out of the ordinary. “There were quite a lot of fire services very much in line with what Strathclyde were doing” (6 August 2010 am page 161). He accepted that the definition of a large care home was always a matter of local interpretation.

I am prepared to accept that in relation to “special risk”, the practice of SF&R is no different from the practice of other authorities. Sir Graham Meldrum accepted that every fire authority reviewed its procedures in light of the Rosepark fire. It was accepted that SF&R also revisited its procedures and, partly as a result of the recommendation by Sir Graham Meldrum, increased the predetermined attendance for appliance to three appliances and increased the number of annual familiarisation visits to one per watch. Sir Graham Meldrum conceded that although they did not classify the premises as “special risk” the difference was academic (6 August 2010 am page 169).

Brian Sweeney, the Head of Strathclyde Fire and Rescue, gave evidence to the effect that the building was neither of a substantial size nor did it present an abnormal risk. That was why it was not catergorised as “special risk”. As I understand his evidence, Sir Graham Meldrum, while not agreeing with that conclusion, did not criticise it – it was a matter of judgement.

Whether the building should be regarded as “special risk” is now academic, in light of the action that SF&R had taken as a result of the fire. What Sir Graham Meldrum recommended – namely annual familiarisation visits for each watch, is now in place.

I do not seek to criticise the decision taken by SF&R at the time of the fire not to categorise Rosepark as “special risk”. However, with the benefit of hindsight, the value of having annual familiarisation visits is obvious and would, in this instance, have resulted in members of Blue Watch being familiar with the premises and thus aware that the “better” access was by Rosepark Avenue.

I consider, again emphasizing with the benefit of hindsight, that it could now be seen as a reasonable precaution to have categorised Rosepark as “special risk” in respect of the number of residents to staff at night, and the degree to which residents would require assistance in the event of evacuation. (Sir Graham Meldrum 3 August 2010 am page 58-61).

However what is of importance is that the Inquiry can be satisfied that there is now an annual familiarisation visit for each watch.

I have decided, for the reasons given in my findings above, not to give effect to the fourth, fifth and sixth reasonable precautions proposed by the Crown, namely

- (i) provision to the control room operator by Isobel Queen of the correct address for Rosepark Care Home, namely Rosepark Avenue instead of Rosepark Gardens
- (ii) for Station Officer Campbell of EO31 to have read, and taken account of, the additional information about access contained in the turnout slip received at Bellshill Fire Station and Hamilton Fire Station and
- (iii) for Leading Fireman McDiarmid of EO12 to have read, and taken account of, the additional information about access contained in the turnout slip received at Bellshill Fire Station and Hamilton Fire Station. I do not require to rehearse the submissions for SF&R thereon.

However, in my view, had there been an annual familiarisation visit and Blue Watch had been familiar with Rosepark Care Home the officers of Blue Watch would have known to go to the Rosepark Avenue entrance. The Inquiry had the clear evidence from Fire Fighter Buick that he decided to take the appliance from New Edinburgh Road to Rosepark Avenue after he had been at the premises because it was a “better” entrance. I conclude from that that this would have been the view of an operational fire fighter. The evidence indicated that familiarisation visits had been accessed by Rosepark Avenue.

The result of the appliances going to New Edinburgh Road instead of Rosepark Avenue resulted, as I have set out, in a delay of 4 minutes 25 seconds in EO31 being deployed at Rosepark Avenue. When EO12 saw EO31 at New Edinburgh Road it attended there. It almost immediately redeployed to Rosepark Avenue. It appears to me that, if an immediate call had been made to the Fire Brigade when the alarm went off, and EO31 had been deployed 4 minutes 25 seconds earlier, it can reasonably be concluded that the deaths of Isabel MacLachlan, Margaret Gow, Isabella MacLeod and Robina Burns might have been avoided.

As far as the submissions of SF&R on this latter conclusion are concerned, the basis for saying that the deaths of the four individuals might have been avoided is derived from calculations undertaken on the carboxyhaemoglobin level. The carboxyhaemoglobin level is a function of time, exposure and exposure dose (David Purser 9 August 2010 pp 38-39). I do not accept that the calculations of Professor Purser leave out of account the consequence that earlier rescue would have resulted in the individuals being introduced into a toxic atmosphere. In relation to Margaret Gow and Isabella MacLachlan, they were rescued from rooms whose doors were already open to the toxic atmosphere (see Chapter 29). Given that these two residents were rescued from within corridor 3, there is nothing in the evidence to indicate that there was an appreciable delay experienced in evacuating either resident along corridor 3. In respect of Isabella MacLeod and Robina Burns, Professor Purser's calculations took account of their exposure to toxic gases during rescue. He prepared, and gave evidence in support of, a supplementary report (production 2075) which considered the implications of earlier rescue where conditions in the upper corridor were concerned.

I agree that the evidence indicated that, even with all the information available, fire fighters face a dilemma in the case of persons with closed doors. However, there is no evidence that that was a dilemma which in any way affected the manner in which the SF&R operation unfolded. Decisions were taken by officers to evacuate residents from their rooms to the Rose Lounge for treatment. In the circumstances of the Rosepark fire such decisions cannot, on any view, be criticised (Brian Sweeney 13 July 2010 pp 80-84).

I accept that the evidence did not disclose a specific estimate of time for the evacuation of Isabella MacLeod. However the evidence does disclose that she was removed from room 11 without significant delay. When it came to rescuing Robins

Burns the evidence of Mr Hector was that it took only one minute to evacuate her along the corridors. By that time windows in rooms of both corridors 3 and 4 had been opened in order to ventilate the building. The important point is that CO concentration in corridor 4 applied by Professor Purser took into account modified fire fighter entry times into that corridor to reflect the circumstances at Rosepark (production 2075 p 3).

The Care Commission agreed that an immediate call to the emergency services was necessary. In addition it supported the proposal that a detailed notice in matron's office specifying the information to be provided to the emergency services would have been a reasonable precaution. The Care Commission agree that, given the vulnerability of the residents, it can now be seen as a reasonable precaution to have designated Rosepark as a high level of risk. They note the current practice.

As far as Isobel Queen is concerned, I am not prepared to endorse the fourth reasonable precaution proposed by the Crown for the reasons I have given. Given the absence of a laminated sheet specifying clearly what information should be given to the Fire Brigade control by the member of staff calling the Fire Brigade, it was quite understandable, in the excitement and panic of the moment, for Isobel Queen to have given the address of Rosepark Care Home as Rosepark Avenue instead of Rosepark Gardens. It would not have happened if the second reasonable precaution which I have proposed regarding information to be given to the Fire Brigade had been in existence. She had received no training as to what to do as nurse in charge at the time of this emergency. She telephoned the Fire Brigade only when the fire was found in accordance with the existing procedure at Rosepark. She did this notwithstanding the serious false alarm which had taken place in December 2003. She had not received instructions at any time – even after the false alarm in December 2003, to telephone the Fire Brigade immediately a fire was discovered.

CHAPTER 44(6): A SUITABLE AND SUFFICIENT RISK ASSESSMENT

Reference is made to Chapter 24.

In RP6 of my findings I have determined:

It would have been a reasonable precaution for the management of Rosepark to have undertaken a suitable and sufficient fire risk assessment.

Had this precaution been taken the accident and some or all of the deaths might have been avoided.

It would have been a reasonable precaution for the management of Rosepark to have undertaken a suitable and sufficient fire risk assessment.

1. A suitable and sufficient fire risk assessment was a statutory requirement.
2. Fire Safety: An Employer's Guide provided detailed guidance about carrying out a fire risk assessment. Although not directed specifically at a care home setting, that guidance would direct someone who had a care home setting in mind to the key issues which had to be addressed. It also identified, in the Bibliography, the sector-specific guidance in HTM 84.

The management of Rosepark had not undertaken a suitable and sufficient fire risk assessment

General

1. The Home undertook risk assessments for various specific matters. For example, a moving and handling assessment was carried out in relation to each resident⁴¹³⁹. Likewise, if a particular issue arose which required to be risk assessed – e.g. an

⁴¹³⁹ Thomas Balmer, 4 May 2010, am, pp. 55-57.

employee expecting a baby – that would be undertaken⁴¹⁴⁰. These individual measures did not meet the requirement for a systematic assessment of the risks attendant on the workplace. A fortiori, they did not address the question of fire risk.

2. When asked whether he had done anything in terms of making a suitable and sufficient risk assessment of the sort described in regulation 3 of the 1992 Regulations before January 2004, Thomas Balmer replied “Personally not, erm, any input requirement for any risk assessment would fall onto the remit of the Care Manager and if it applied, in any shape or form to ourselves, it would immediately be raised to myself”⁴¹⁴¹. When asked whether he had himself ever engaged in any exercise of looking for potential hazards, deciding who may be harmed, evaluating the risks, recording his findings and reviewing the assessment, the only example which Mr Balmer could recall was an exercise in relation to the loading of residents for outings of residents⁴¹⁴².

3. The only concrete step taken by the management of Rosepark Care Home to carry out a risk assessment (including a fire risk assessment) was the engagement of Mr Reid⁴¹⁴³.

Pro 216 was not a suitable and sufficient risk assessment

4. As Mr Reid acknowledged, Pro 216 was not a suitable and sufficient fire risk assessment⁴¹⁴⁴.

a. The critical failing was a failure to identify the residents of the Home as persons at risk in the event of fire, or address the implications of that factor⁴¹⁴⁵.

As Mr Todd put it, “you almost don’t need to go any further. It’s failed at that –

⁴¹⁴⁰ Thomas Balmer, 4 May 2010, am, pp. 57-58.

⁴¹⁴¹ Thomas Balmer, 4 May 2010, am, pp. 63-68.

⁴¹⁴² Thomas Balmer, 4 May 2010, am, pp. 82-83.

⁴¹⁴³ Thomas Balmer, 4 May 2010, am; p. 74, 6 May 2010, pm, p. 22.

⁴¹⁴⁴ James Reid, 17 February 2010, pm, p. 7-8; David Charters, 20 July 2010, pm, pp. 24-35; Colin Todd, 27 July 2010, pm, pp. 27-28.

⁴¹⁴⁵ Colin Todd, 27 July 2010, pm, pp. 65-66; see also James Reid, 17 February 2010, pm, pp. 10-11.

so catastrophically – at that first stage, that everything else probably pales a little bit into insignificance”⁴¹⁴⁶.

b. The other serious deficiency was the limited attention paid to the means of escape, the protection of the means of escape, and the arrangements for evacuation. This too would have been enough to mean that Pro 216 was not a suitable and sufficient risk assessment⁴¹⁴⁷.

c. There were other failings:-

i. It did not contain a systematic or organized assessment of fire risks⁴¹⁴⁸.

ii. Although certain possible sources of ignition were addressed it did not contain an organized or systematic examination of potential sources of ignition, and did not mention, for example, willful fire-raising⁴¹⁴⁹.

iii. Critically, it did not address the worst-case scenario of a fire breaking out at night⁴¹⁵⁰.

iv. It did not address systematically the fire protection measures. It did not address the presence of automatic fire detection⁴¹⁵¹.

v. Any fire risk assessment for a care home should consider the arrangements for summoning the Fire Service⁴¹⁵².

⁴¹⁴⁶ Colin Todd, 27 July 2010, pm, p. 28.

⁴¹⁴⁷ Colin Todd, 27 July 2010, pm, pp. 61-64; see also James Reid, 17 February 2010, am, pp. 91-93, pm, pp. 81-84..

⁴¹⁴⁸ James Reid, 17 February 2010, pm, p. 4.

⁴¹⁴⁹ James Reid, 17 February 2010, pm, pp. 8-9; Colin Todd, 27 July 2010, pm, pp. 44-45

⁴¹⁵⁰ James Reid, 17 February 2010, pm, pp. 11-12.

⁴¹⁵¹ Colin Todd, 27 July 2010, pm, pp. 48-49.

⁴¹⁵² Colin Todd, 27 July 2010, pm, pp. 49-50.

vi. It should have addressed the instructions given to staff in respect of emergency fire-fighting⁴¹⁵³.

5. Mr Todd questioned whether the document could really be described as a fire risk assessment at all. He described it as “a housekeeping and maintenance audit”, of a sort which duty-holders should be carrying out regularly, but which could not properly be characterized as a fire risk assessment⁴¹⁵⁴.

6. While the use of a pro forma, involving questions capable of being answered only “Yes” or “No”, does not necessarily preclude the assessment being suitable and sufficient, but this depends on the scope of the questions and whether it enables or allows additional information to be recorded as required⁴¹⁵⁵. In the present case:

a. The use of a template which is generic and not focused on the particular type of workplace in question may make it more difficult to address the key issues⁴¹⁵⁶.

b. It did not allow for partial compliance⁴¹⁵⁷. So, for example, Question F18 (about keeping internal fire doors closed) was badly worded for the situation where the fire doors were held open⁴¹⁵⁸.

c. It did not allow space for a narrative (e.g. describing existing controls such as the Emergency Plan)⁴¹⁵⁹.

⁴¹⁵³ Colin Todd, 27 July 2010, pm, pp. 53-55.

⁴¹⁵⁴ Colin Todd, 27 July 2010, pm, pp. 28-31.

⁴¹⁵⁵ Colin Todd, 27 July 2010, pm, pp. 37-38; cf James Reid, 17 February 2010, pm, pp. 6, 34.

⁴¹⁵⁶ James Reid, 17 February 2010, pm, p. 7.

⁴¹⁵⁷ James Reid, 17 February 2010, pm, p. 6.

⁴¹⁵⁸ James Reid, 17 February 2010, am, pp. 9-11.

⁴¹⁵⁹ James Reid, 17 February 2010, pm, p. 17; Colin Todd, 27 July 2010, pm, pp. 31-34.

Had a suitable and sufficient risk assessment been undertaken the deaths, or some of them, would have been avoided

Discussion with care professionals

7. In the context of a care home, the particular challenge, from the point of view of managing fire safety, is the dependence of the residents. The greater the dependency, the greater the problem⁴¹⁶⁰. The challenge presented by evacuating dependent residents should be obvious to a risk assessor⁴¹⁶¹.

8. A key step in a fire risk assessment of a Care Home should, accordingly be to discuss the nature of the residents and their dependence with the care professionals to identify whether there were systems in place to achieve evacuation in the event of a fire⁴¹⁶². Such a discussion should include a discussion about the time which it would take to evacuate residents from any sub-compartment. The risk assessor should seek to identify the worst case scenario – i.e. the sub-compartment which it would take longest to evacuate. A risk assessor cannot, without input from the care professionals, obtain a proper understanding of these matters.

9. The risk assessor should get a handle on the potential time to evacuate in the worst case scenario (i.e. on nightshift), if necessary by getting staff to undertake a practical exercise⁴¹⁶³. Even without undertaking a detailed analysis such as that undertaken by Ms Midda, such a conversation with Ms Meaney would have disclosed her anxieties about what would happen in the event of a fire at night. As Mr Todd observed, simply to say that it would all be very difficult is not good enough⁴¹⁶⁴.

10. Once the sorts of timescales involved in evacuation had been identified, the risk assessor would need to address whether the escape route would be available for that length of time. This should take the risk assessor to consideration of protection of the escape routes and would lead him to address the question of keeping bedroom doors

⁴¹⁶⁰ Rod Sylvester-Evans, 22 June 2010, am, pp. 2-4.

⁴¹⁶¹ Rod Sylvester-Evans, 22 June 2010, am, p. 4.

⁴¹⁶² David Charters, 20 July 2010, am, pp. 109-110.

⁴¹⁶³ Colin Todd, 27 July 2010, am, pp. 79-88.

⁴¹⁶⁴ Colin Todd, 27 July 2010, am, p. 88.

closed, and to consider upgrading them to fire doors and to fit smoke seals⁴¹⁶⁵, as well as the question of the cupboard doors⁴¹⁶⁶. It would also take him to address the number of residents in the subcompartment, and the subdivision of the subcompartment which would not only reduce the number of residents to be evacuated in the first instance, but also reduce the time by reducing the size of the subcompartment⁴¹⁶⁷.

What would a suitable and sufficient risk assessment have identified?

11. Had a suitable and sufficient risk assessment been undertaken by the management of Rosepark before the fire it would have identified the following:

a. The size of corridor 4. A suitable and sufficient risk assessment undertaken in January 2003 (or indeed at any earlier time during the life of Rosepark) would have identified that corridor 4 was too long and that the number of persons potentially accommodated in that corridor – 14 – were too many for an effective evacuation⁴¹⁶⁸. The basis of fire safety is addressing the question: can we get people out in time before conditions become untenable⁴¹⁶⁹? So the issue would have been fundamental. The fire safety expert should ask the care staff: How many staff are on at night? Tell me about the residents and their evacuation difficulties? How long is it going to take to evacuate residents from a sub-compartment? Such an exercise would have disclosed that the time which it would take to evacuate corridor 4 were too long – and that the difficulties in doing so were too great. The issue was so important that it would be given a high priority in any Action Plan: assuming that the outcome was a decision to subdivide the corridor, Mr Todd would have put a timescale of 3 months on undertaking that work⁴¹⁷⁰.

⁴¹⁶⁵ Colin Todd, 27 July 2010, am, pp. 91-92.

⁴¹⁶⁶ Colin Todd, 27 July 2010, am, pp. 102-103.

⁴¹⁶⁷ Colin Todd, 27 July 2010, am, pp. 92-94.

⁴¹⁶⁸ David Charters, 20 July 2010, am, pp. 112-124; Colin Todd, 26 July 2010, am, pp. 62-63, 27 July 2010, am, pp. 62-63, 69.

⁴¹⁶⁹ Colin Todd, 27 July 2010, am, p. 69-78

⁴¹⁷⁰ Colin Todd, 27 July 2010, am, pp. 67-69.

b. Whether bedroom doors would be closed in the event of a fire and how that would be achieved. A suitable and sufficient fire risk assessment would have addressed the question of whether bedroom doors would be closed in the event of fire and how that would be achieved⁴¹⁷¹. A fire risk assessor, recognizing the reasons why the Care Home required to leave certain doors open or ajar, would then have addressed how the fire safety requirement to have the doors closed in the event of a fire would be achieved, and would, in that context, have recommended the use of one of the technological devices where were available. The first choice would have been swing-free devices. An acceptable alternative would have been Dorgard devices, which would have advantages in terms of cost and speed of installation. In an Action Plan, this would be given a very high degree of priority⁴¹⁷².

c. The presence of an electrical distribution board in cupboard A2. The average risk assessor would not walk past cupboard A2 without looking inside it: as a cupboard opening onto a critical escape route he would wish to know what was inside it⁴¹⁷³. On identifying that the cupboard contained electrical equipment (which could be source of ignition) and other flammable contents, he would assess that as part of the risk assessment. Mr Todd would not have insisted in complete separation between the distribution board and the other contents of the cupboard, although he would have wished to see the shelves cut back to make a clear separation between combustible materials and the board. He would have been concerned to find a quantity of aerosols within the cupboard (even if they were within the inner cupboard), and would have recommended that these be stored elsewhere. He would in any event (and whether or not he identified aerosols within the cupboard) have recommended that the doors be kept locked and that they should preferably be fire-resisting, with keeping them locked being the primary thing. The recommendations to remove the aerosols and to keep the cupboard doors locked would have been

⁴¹⁷¹ Colin Todd, 27 July 2010, am, pp. 40-41

⁴¹⁷² Colin Todd, 27 July 2010, am, pp. 40-46, 51-52.

⁴¹⁷³ David Charters, 20 July 2010, pm, pp. 17-18.

given a high priority, and the recommendation to upgrade the doors to fire-resisting doors a timescale of 6-12 months⁴¹⁷⁴.

d. Inadequate arrangements for summoning the fire brigade. The risk assessor should discuss the Emergency Plan with management and staff. A suitable and sufficient fire risk assessment would have addressed the arrangements for contacting the fire and rescue service. If there was any doubt as to whether the Fire Service would be reliably summoned immediately at night, a recommendation to install automatic transmission to the Fire Service would have been appropriate⁴¹⁷⁵. This exercise would have identified that the Home had adopted an inappropriate procedure which involved a delay in contacting the fire service until a fire had been identified and generated a recommendation that this procedure should be changed with a high degree of priority. Since the introduction of such a procedure would involve a culture change, and this would introduce concern as to whether or not this could be reliably implemented, a recommendation to consider automatic transmission would be appropriate⁴¹⁷⁶.

e. Absence of fire dampers. In the context of Rosepark, where there were ventilation grilles in the ceilings of the corridors on either side of the sub-compartments, a competent fire risk assessor would appreciate that there was likely to be a common duct, and that this should be protected by fire dampers, and should satisfy himself by making inquiry about the fire protection at the barrier. If he received no immediate answer, it might be included in an Action Plan to be considered⁴¹⁷⁷.

⁴¹⁷⁴ Colin Todd, 27 July 2010, am, pp. 146-153, pm, pp. 1-3; 28 July 2010, am, p. 116.

⁴¹⁷⁵ Colin Todd, 26 July 2010, am, pp. 134-143, pm, pp. 1-2, 27 July 2010, pm, pp. 68-69; 28 July 2010, pm, pp. 84-89; BS 5839-I:2002, para. 15.2 (Pro 1443, p. 38).

⁴¹⁷⁶ David Charters, 20 July 2010, am, pp. 132-134; Colin Todd, 26 July 2010, am, pp. 134-143, pm, pp. 1-8.

⁴¹⁷⁷ Colin Todd, 26 July 2010, am pp. 109-113; 27 July 2010, am, pp. 108-111.

12. *The absence of a zone plan at the fire panel.* Colin Todd took the view that a good fire risk assessor would pick up the absence of a zone plan, but acknowledged that not every fire risk assessor would identify this failing⁴¹⁷⁸.

13. A competent risk assessor experienced in fire safety, addressing the position at Rosepark, would have recommended⁴¹⁷⁹:

a. sub-division of corridor 4 within a short period of months (or, if management were not prepared to take that step, alternative measures – such as the introduction of a sprinkler system, or increasing the staff complement, to secure the same end);

b. installation of self-closers (swing-free, Dorgard or other similar devices) on bedroom doors as a matter of urgency;

c. keeping the doors to cupboard A2 locked as a matter of urgency;

d. removal of the aerosols from cupboard A2 as a matter of urgency;

e. upgrading the bedroom doors to fire resisting self-closing doors fitted with smoke seals and the cupboard doors to be fire-resisting doors within twelve months;

f. that the Fire Brigade should be called on the operation of the alarm⁴¹⁸⁰.

14. Such a risk assessor should also

a. have emphasized the need for clearance between the contents of cupboard A2 and the distribution board⁴¹⁸¹; and

⁴¹⁷⁸ Colin Todd, 26 July 2010, am, p. 111; 27 July 2010, pm, pp. 50-53.

⁴¹⁷⁹ Colin Todd, 27 July 2010, am, pp. 103-108, pm, pp. 1-2, 70-72.

⁴¹⁸⁰ David Charters, 20 July 2010, am, pp. 133-134.

⁴¹⁸¹ Colin Todd, 27 July 2010, pm, p. 71.

b. have identified, at least as an issue for inquiry, the requirement for fire dampers⁴¹⁸²; and

c. recommended periodic inspection and testing of the fixed electrical installation in accordance with BS 7671⁴¹⁸³.

15. It follows that, had a suitable and sufficient fire risk assessment been undertaken, many of the reasonable precautions already mentioned would have been identified and, on the basis that the recommendations generated by the process would have been acted upon, this might have avoided the fire and some or all of the deaths.

Note to Chapter 44(6)

On behalf of the Balmer Partnership it was conceded that the findings which I have proposed are reasonable in the circumstances. They pointed out that Mr Reid's risk assessment, obtained in good faith, did not identify the residents of the home as persons at risk and this was a serious error. However, as I have already made clear, obligation to obtain a risk assessment and act upon it rests on the duty holder – in this case the Balmer Partnership. I have also made clear in my conclusions that no steps appear to have been taken at their instance to implement any of the proposals of what was an imperfect risk assessment. In particular no steps were taken in respect of the high priority of fire training and drills.

SF&R support the proposals. The Care Commission do not demur from the proposed findings. On behalf of Matron, it is emphasised that she was not involved in any fire risk assessment with Mr Reid or anyone else. She was not invited nor instructed by management to do so. She did not receive any copy or feedback in relation to the fire risk assessment and management did not discuss with her the contents thereof. I have already accepted that position.

⁴¹⁸² Colin Todd, 27 July 2010, am, pp. 108-111, pm, pp. 71-73.

⁴¹⁸³ Colin Todd, 27 July 2010, pm, pp. 73-75.

CHAPTER 44(7): EARLY AND SUFFICIENT RESOURCING OF THE INCIDENT BY THE FIRE BRIGADE

Reference is made to Chapter 28.

I have made the following findings at RP7:

This fire was unique in respect of the following factors:

- 1. The postal address was not the entrance to the Home.**
- 2. Dampers had been omitted from the ventilation system allowing smoke to move from one compartment to another, and in particular from corridor 4 to the lift shaft area in corridor 2.**
- 3. There was no stopping of service entry points between fire compartments.**
- 4. There was no effective compartmentation in the attic area and there was an open vent in the lift shaft area (corridor 2) which allowed smoke from corridor 4 to penetrate via the roof void to corridor 2.**
- 5. Alarm zones overlapped compartments.**
- 6. Alarm zone descriptions at the fire alarm panel were ambiguous and confusing.**
- 7. The alarm panel was changed several days before the fire without staff being informed or trained.**
- 8. The staff had no idea how to interpret fire alarm information and had reset the alarm before phoning the Fire Brigade.**
- 9. The staff misinterpreted information from the alarm and advised the Station Officer Campbell that the fire was in the lift shaft area at the lower level.**
- 10. There was no effective staff training in fire procedures.**

11. **The staff on duty on the night of the fire had never participated in a fire drill. There was no evacuation plan committed to writing, and in event no adequate evacuation plan.**
12. **Bedroom doors were routinely left open over night.**
13. **The only coherent procedure, followed on the occasion of the fire, was that there was an attempt to identify that there was a fire before the Fire Brigade was called, resulting in a delay of nine minutes.**
14. **The fire commenced in a cupboard which contained a number of aerosol sprays which led to a very fast developing fire of short duration which was likely to have self extinguished before the Fire Brigade were called or certainly before they arrived.**

Against that background:

(i) Station Officer Campbell was approached by the nurse in charge who told him that the fire alarm had gone off and that the first indication was zone 3 which indicated a fire in the lower ground floor at or around the lift area. Station Officer Campbell had no reason to doubt that information. It was consistent with the information he himself had gathered from his own observations (wisps of smoke in a room adjacent to the lift shaft area on the lower ground floor as he approached the building and the presence of smoke in the lift shaft area at the upper level when he arrived at the building).

(ii) His evidence was that he had no reason to believe that compartmentation would not be effective and that bedroom doors would be closed. This caused him to make a “persons reported” message at 0450. He instructed “make pumps 3” at 0455. At that time he was aware that there was smoke in corridor 3, but he took the view that he was dealing with a fire in the lift. He instructed “make pumps 4” at 0506 because he then realised that the number of residents in the Home were too great for the number of fire fighters then available. He instructed “make pumps 6” at 0525 because he considered it would be prudent to get additional resources for the relief of existing personnel, investigation and

damping down procedure. He was also concerned to mobilise the command and control unit of SF&R which would allow senior officers to attend.

(iii) **IT CAN NOW BE SAID**, with the benefit of hindsight and a consideration of the whole evidence led at the Inquiry, and in particular the evidence of Sir Graham Meldrum, that, while Station Officer Campbell made a series of reasoned judgments calls on the basis of the information then available to him, against the background of the 14 unique factors, which were unknown to him, reasonable precautions can now be seen to have been:

RP7.1 For Station Officer Campbell to have examined the fire alarm panel and zone card in order to verify the information he had obtained from staff about the possible whereabouts of the fire⁴¹⁸⁴;

RP7.2 For Station Officer Campbell to have treated the residents of the upper level bedrooms beyond corridor 2 as unaccounted for, until the position was established otherwise⁴¹⁸⁵.

RP7.3 For Station Officer Campbell to have confirmed with the staff of Rosepark whether the doors to the bedrooms beyond corridor 2 were open or closed⁴¹⁸⁶;

RP7.4 For Station Officer Campbell to have instructed the message Make Pumps 6 at 0450 hours when the persons reported message was sent⁴¹⁸⁷;

Had these precautions been taken, on the basis that the call from Rosepark to the Fire Brigade was made nine minutes after the alarm sounded and the initial attendance of fire appliances was to New Edinburgh Road, they might have avoided the death of Robina Burns.

⁴¹⁸⁴ Sir Graham Meldrum, 6 August 2010, am, pp71-72;

⁴¹⁸⁵ Sir Graham Meldrum, 6 August 2010, am, pp74-75;

⁴¹⁸⁶ Sir Graham Meldrum, 6 August 2010, am, p71

⁴¹⁸⁷ Sir Graham Meldrum, 6 August 2010, am, p72;

1. In the Crown submissions paragraphs 1 to 27 the Crown set out the evidence of Sir Graham Meldrum and make a substantial number of criticisms of the decisions taken by Station Officer Campbell. The submissions contain suggestions of what Station Officer Campbell “should have done”; “what was reasonable for Station Officer Campbell to have done”; and “whether what Station Officer Campbell did was sufficient”. It was not appropriate for this Inquiry to determine what Station Officer Campbell should have done or what was reasonable for Station Officer Campbell to have done or whether what Station Officer Campbell did was sufficient. I have already made clear that the purpose of the Inquiry is restricted to the powers under section 6(1) of the 1976 Act. The evidence which Sir Graham Meldrum gave is based on his own assessment of what took place on the night of the fire and what he considers the Station Officer Campbell “should have done”.

2. The manner in which the evidence is presented in the Crown submissions suggests that it is my task to decide what Station Officer Campbell ought to have done in the almost unique position in which he found himself. This method of presentation in my view suggests that it is my task to decide whether there was negligence on the part of Station Officer Campbell in taking the decisions he took in the very difficulty circumstances in which he found himself.

3. That is not my task. As I made clear in the introduction to this Determination, quoting Lord President Hope I stated:

“There is no power ... to make a finding as to fault or to apportion blame between any persons who might have contributed to the accident. ... there are no grounds of fault upon which his decision is required.”

Quoting from my own Determination of 20 July 1993 I said:

“In my opinion a Fatal Accident Inquiry is very much an exercise in applying the wisdom of hindsight. It is for the sheriff to identify the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided ... The statutory provisions are widely drawn and are intended to permit retrospective consideration of matters with the benefit of hindsight and on the basis of the information and evidence available at the time of the Inquiry.”

Quoting Sheriff Reith, QC her Determination of 23 January 2003:

“In my opinion, the purpose of a fatal accident inquiry is to look back, as at the date of the inquiry, to determine what can now be seen as the reasonable precautions, if any, whereby the death might have been avoided, ... The purpose of the conclusions drawn is to assist those legitimately interested in the circumstances of the death to look to the future. They, armed with hindsight, the evidence led at the inquiry, and the determination of the inquiry, may be persuaded to take steps to prevent any recurrence of such a death in future.”

And also Sheriff Principal Mowat in the Lockerbie FAI:

“I have come to the conclusion that any finding under section 6(1)(c) should avoid, as far as possible any connotation of negligence.”

4. For these reasons I intend only to deal with the matters which the Crown wish to be desiderated as what can now be seen to be “reasonable precautions”. I do not propose to analyse Sir Graham Meldrum’s evidence as if I were dealing with a negligence action. There is no sufficient evidence before this Inquiry to allow any decision to be reached on that issue, one way or the other. I deal with the reasonable precautions which I have found to be appropriate in turn:

(1) **For Station Officer Campbell to have examined the fire alarm panel and zone card in order to verify the information he had obtained from staff about the possible whereabouts of the fire**

(a) The evidential position was that Station Officer Campbell indicated that he did not examine the fire alarm and zone card because he was given information about the whereabouts of the fire, namely in the lower ground floor at or around the lift area. A zone number was mentioned which clearly gave the impression to him that the staff had examined the zone card. That information was confirmed by Station Officer Campbell’s own observations. Wisps of smoke in a room adjacent to the lift shaft area on the lower ground floor as he approached the building and the presence of smoke in the lift shaft area at the upper level when he arrived at the building.

(b) That statement by staff was based on a reading of what I consider to be a misleading fire alarm panel. Zone 3 was referred to as being on the “ground floor” which was in fact the upper of the two floors. However, the zones relating to the “ground floor” were on the lower part of the fire

alarm panel, thus suggesting the zones related to the lower of the two floors. I deal with this matter at Chapter 44(4)(A) paragraphs 2 and 3.

(c) Section 3.2.1 of Operational Technical Note No A124, which was brought into operation by SF&R in response to certain recommendations by Sir Graham Meldrum “alarm panels – in all instances where fire is suspected and when responding to an alarm activation the alarm panel must be consulted to establish the zones involved within the building”. There is no similar provision in OTN A6 which was in force at the time of the fire.

(d) It appears that both Sir Graham Meldrum and SF&R now take the view that this is an appropriate course of action when fire fighters arrive at the scene of a fire.

(e) It respectfully appears to me that, with the benefit of hindsight, it is appropriate that this be considered a reasonable precaution. Had he consulted the zone card at the fire alarm panel, and interpreted it correctly, he would have been directed to zone 3 which was in corridor 4. It must be said, however that there is no guarantee that Station Officer Campbell would not have been similarly misled by the information on the zone card.

(f) It is enough to say that such an action “might have avoided some of the deaths”. In my opinion that conclusion can properly be reached and I am prepared to hold that this can now be seen as a reasonable precaution.

(2) For Station Officer Campbell to have treated the residents on the upper level bedrooms beyond corridor 2 as unaccounted for, until the position was established otherwise

(a) Station Officer Campbell noted that there was no smoke in corridor 1 and that accordingly compartmentation between corridor 1 and corridor 2 was effective. He took the view that compartmentation would be similarly effective on the other side of corridor 2 i.e. between corridor 2 and corridor 3, and accordingly the fire would be contained in the lift shaft area.

(b) He assumed the residents in corridors 3 and 4, whom he had been told were in their rooms, would have had their doors closed, as should have been the case. He did not know that the lack of effective compartmentation, caused by the absence of dampers, allowed smoke from corridor 4 to escape through a vent in the roof void into corridor 2. He did know of the practice at Rosepark to have bedroom doors open at night.

(c) This is a good example of applying the wisdom of hindsight. The issue is not whether or not Station Officer Campbell acted reasonably in not treating the residents on the upper level bedrooms beyond corridor 4 as unaccounted for – that would properly be the province of an action of negligence with the issue before the court of what a reasonable station officer commander would have done. The issue is whether, this tragedy having taken place, it can now be seen to have been a reasonable precaution to have made no assumptions and to check information before treating the residents in the bedroom beyond corridor 2 as accounted for.

(d) I think the experience of Rosepark is such that this must be seen for the future to have been a reasonable precaution. I so find.

(3) For Station Officer Campbell to have confirmed with the staff of Rosepark whether the doors to the bedroom beyond corridor 2 were open or closed

There was evidence that many care homes now have mechanisms whereby bedroom doors close when the fire alarm sounds. This issue may not now be of the same importance. However, the experience of Rosepark is such that it can now be seen as a reasonable precaution that incident commanders should seek confirmation on arrival as to whether bedroom doors are closed.

(4) For Station Officer Campbell to have instructed the message “make pumps 6” at 0450 hours when the “persons reported” message was sent

(a) Section 4 of OTN A124 (issued in December 2008) provides:

“Early consideration should be given to the scale of the incident and the resources that will be required in particular when a large scale evacuation/rescue of non-ambulant residents may be required.”

(b) Brian Sweeney gave evidence that a new system of resourcing an incident had been introduced by SF&R. Whereas formally it was left to the judgement of the incident commander how many appliances to call to an incident, the new system is one which involves different levels of response. Level 1 would represent the predetermined attendance (now three in respect of residential care homes). If additional resources were sought, that would be done by the officer in charge seeking a level 2 attendance. A level 2 attendance would involve six appliances. This would be the equivalent, in the case of Rosepark, of making pumps 6. The Inquiry was told that this system is part of a United Kingdom wide system of incident command and was not necessarily introduced as a result of the fire at Rosepark.

(c) Accordingly steps have been taken to withdraw from incident commanders the difficult judgement call in the heat of “battle” as to what additional resources should be called. If a Rosepark fire had taken place now, three appliances would have attended immediately, and a further three when it was ascertained that further resources were required.

(d) With the benefit of hindsight, as Station Officer Campbell himself properly conceded it can now be said that to “make pumps 6” at 0450 would have been a reasonable precaution. This is not an indictment of the decisions made by Station Officer Campbell in the exceptional position which he found himself. It is a statement of fact now on the basis of the evidence as presented to the Inquiry and in my view it is properly included as a reasonable precaution.

Had these precautions been taken, they might have avoided the death of Robina Burns

1. Had Station Officer Campbell instructed a message to make Pumps 6 at about 0450 hours then the appliances which subsequently answered the resource messages

to make Pumps 3 and make Pumps 4 would have been available to Mr Campbell sooner than in fact they were.

2. In the opinion of Sir Graham Meldrum, the effect of a make Pumps 6 message at 0450 hours would have been this. EO11, which mobilised in response to the make Pumps 3 message at 0456, would have been mobilised 6 minutes earlier⁴¹⁸⁸. Given that there is a slight delay in mobilisation after the resourcing message has been sent it is probably appropriate to reduce that period of time to 5 minutes, being the difference between the time of the person reported message and the time of the make Pumps 3 message.

3. By a similar process of reasoning one can bring forward the times of attendance of E042, E041 and E022 by a period of time representing the delay between 0450 hours (when, in Sir Graham's opinion, they should have been summoned) and the make Pumps 4 and make Pumps 6 messages⁴¹⁸⁹.

4. Since E042, E041 and E022 were all crewed with a BA team⁴¹⁹⁰ one can reasonably conclude that Station Officer Campbell would have had a BA team from E042 at 0509 hours (0450 being 16 minutes before 0506). He would have had a BA team from each of E041 and E022 at 0502 hours (0450 hours being 35 minutes before 0525 hours).

5. The consequence of having such additional resources would be to enable Station Officer Campbell to deploy additional teams on search and rescue. If that deployment had occurred it is reasonable to infer from the events of the night that Mrs Burns could have been rescued sooner than she was. Mrs Burns was rescued about 30 minutes after her next door neighbour. There was a practical problem in relation to resourcing as BA wearers gathered in the vicinity of room 9⁴¹⁹¹.

⁴¹⁸⁸ Sir Graham Meldrum, 6 August 2010, am, pp58-59;

⁴¹⁸⁹ Sir Graham Meldrum, 6 August 2010, am, pp32-36;

⁴¹⁹⁰ Paul Nelson, 15 December 2009, am, pp110-112; Alastair Ross, 14 December 2009, pm, pp64-77;

⁴¹⁹¹ Sir Graham Meldrum, 6 August 2010, am, pp15-18;

6. Station Officer Campbell acknowledged the possibility that Mrs Burns could have been rescued earlier if he had had additional resources⁴¹⁹²

7. The rescue time for Isabella MacLachlan (0455 hours) would not have been affected by a make Pumps 6 message at 0450 hours.

Outcomes of earlier rescue of those rescued alive from corridors 3 and 4

Margaret Gow

8. Margaret Gow was rescued at about 0506 hours⁴¹⁹³;

12. Professor Purser estimated that her carboxyhaemoglobin level at the time of rescue was between 44% and 53%⁴¹⁹⁴

13. When admitted to hospital Margaret Gow was suffering from hypoxic brain damage, a typical effect of exposure to asphyxiant gases⁴¹⁹⁵;

14. She had significant co-morbidity in the form of left ventricular failure, atrial fibrillation and urinary infection⁴¹⁹⁶;

15. When rescued Mrs Gow had reached an advanced state in the process of her smoke inhalation injury⁴¹⁹⁷. She was found probably just before going into respiratory and cardiac arrest⁴¹⁹⁸

16. Rescue with a carboxyhaemoglobin level below 40% would have a potentially better outcome⁴¹⁹⁹, although because of the co-morbidities, and in particular the left ventricular failure, she was still at a higher risk of dying⁴²⁰⁰;

⁴¹⁹² Steven Campbell, 11 January 2010, pp67-70;

⁴¹⁹³ David Buick, 7 December 2009, am, pp127-128; David Ferguson, 8 December 2009, pm, pp15-16;

⁴¹⁹⁴ David Purser, 15 June 2010, am, pp55-56;

⁴¹⁹⁵ David Purser, 15 June 2010, am, pp56-57;

⁴¹⁹⁶ John Kinsella, 21 June 2010, am, 21 June 2010, am, pp124-125; Production 1782, p12;

⁴¹⁹⁷ John Kinsella, 21 June 2010, am, p125;

⁴¹⁹⁸ John Kinsella, 21 June 2010, am, pp127-128;

⁴¹⁹⁹ David Purser, 15 June 2010, am, p64;

17. If she had been rescued at 0458 hours, 8 minutes earlier than she was, then Mrs Gow's carboxyhaemoglobin level would have been about 30.5%. It is possible that she would have survived but not necessarily so⁴²⁰¹.

18. Additional resources responding to the message to make Pumps 6 would not have been available before 0502 hours and would require a short period of time to deploy. In the circumstances it cannot reasonably be said that Mrs Gow's death might have been avoided if additional resources had been sought at 0450 hours.

Isabella MacLeod

19. Isabella MacLeod was rescued at about 0509 hours⁴²⁰²;

20. Professor Purser estimated that Mrs MacLeod's %COHb at the time of rescue was between 43% and 57%⁴²⁰³

21. Isabella MacLeod was intubated at the scene and therefore received a much more efficient intake of oxygen⁴²⁰⁴. She had a cardiac arrest, probably shortly before she was rescued⁴²⁰⁵. Accordingly, in Professor Kinsella's opinion, the true level was likely to be at the upper end of her % COHb range⁴²⁰⁶.

22. Rescue of Mrs MacLeod at an earlier stage would have reduced her exposure and improved her chances of survival, particularly if she could have been rescued before achieving a blood concentration of 40% COHb⁴²⁰⁷.

⁴²⁰⁰ John Kinsella, 21 June 2010, am, pp129-130; Production 1782, p13;

⁴²⁰¹ David Purser, 15 June 2010, am, p73;

⁴²⁰² James Clark, 9 December 2009, am, pp41-50; Colin Mackie, 10 December 2009, pm, pp94-95;

⁴²⁰³ David Purser, 14 June 2010, pm, pp76-77;

⁴²⁰⁴ Production 1727; Joint Minute, part 1, paragraph 1;

⁴²⁰⁵ John Kinsella, 21 June 2010, pm, pp104-108;

⁴²⁰⁶ John Kinsella, 21 June 2010, am, pp101-103;

⁴²⁰⁷ David Purser, 9 August 2010, am, pp4-5; Production 2075, p6;

23. For that to have occurred Mrs MacLeod would need to have been rescued by, at the latest, 0503 hours, assuming a period of no more than 2 minutes spent in corridor 4⁴²⁰⁸.

24. Additional resources responding to the message to make Pumps 6 would not have been available before 0502 hours and would have required a short period of time to deploy. In the circumstances it cannot reasonably be said that Mrs MacLeod's death might have been avoided if additional resources were sought at 0450 hours.

Robina Burns

25. Robina Burns was rescued at about 0539 hours⁴²⁰⁹.

26. Mrs Burns' prognosis on arrival at hospital was poor. She had developed a myocardial injury and that created a situation in which there was a very high risk of death⁴²¹⁰.

27. Professor Purser estimated that Mrs Burns' carboxyhaemoglobin level at the time of rescue was between 43% and 49%⁴²¹¹;

28. Professor Kinsella agreed that the range of 43% to 49% was clinically correct⁴²¹²;

29. Rescue of Mrs Burns at an earlier stage would have reduced her exposure and improved her chances of survival, particularly if she could have been rescued before achieving a blood concentration of 40% COHb⁴²¹³.

30. Rescue at any time before approximately 55 minutes after ignition (i.e. 0523 hours) would have resulted in a % COHb level below 40%⁴²¹⁴,

⁴²⁰⁸ David Purser, 9 August 2010, am, pp5-6; Production 2075, p6;

⁴²⁰⁹ Gordon Hector, 14 December 2009, am, pp64-67;

⁴²¹⁰ John Kinsella, 21 June 2010, am, pp79-82;

⁴²¹¹ David Purser, 14 December 2009, am, p76;

⁴²¹² John Kinsella, 21 June 2010, am, pp73-76;

⁴²¹³ David Purser, 9 August 2010, am, pp4-5; Production 2075, p6;

⁴²¹⁴ David Purser, 9 August 2010, am, pp6-7; Production 2075, p6;

31. As a result of conditions in corridor 4, rescue before about 45 minutes (i.e. 0513 hours) would have resulted in a significant increase in exposure to harmful products of combustion. This would not, however, result in a blood level exceeding 40COHb provided the corridor exposure did not exceed 3 minutes⁴²¹⁵. For the avoidance of doubt, Professor Purser's calculations took account of Mrs Burns' exposure to toxic gases during rescue. He prepared, and gave evidence in support of, a supplementary report⁴²¹⁶ which considered the implications of earlier rescue where conditions in the upper corridor were concerned⁴²¹⁷. In support of this determination the Crown led evidence under reference to Professor Purser's supplementary report.

32. It took about one 1 minute to convey Mrs Burns from her room to the foyer⁴²¹⁸.

33. If two additional BA teams had been available from 0502 hours, and a further BA team from 0509 hours, Sir Graham acknowledged the possibility that Mrs Burns' room might still have been missed because the search pattern adopted hitherto had not followed a strict left and right hand search⁴²¹⁹.

34. However, if one were to proceed on the assumption that the addition of significant additional resources would have been deployed sensibly by Station Officer Campbell it is reasonable to conclude that Mrs Burns could have been rescued prior to 0523 hours. If that had occurred, her death might have been avoided.

Note to Chapter 44(7)

It will be noted that I have effectively rewritten this Chapter. I have taken on board the submissions made on behalf of SF&R and have set out what I now consider to be reasonable precautions which might have avoided the death of Robina Burns. I have taken into account the various unique factors in this fire which I have set out at the beginning of this Chapter and I have also set out the information on which Station Officer Campbell proceeded.

⁴²¹⁵ David Purser, 9 August 2010, am, pp7-9;

⁴²¹⁶ Production 2075;

⁴²¹⁷ David Purser, 9 August 2010, am, pp3. 7-8

⁴²¹⁸ Gordon Hector, 14 December 2010, am, p64;

⁴²¹⁹ Sir Graham Meldrum, 6 August 2010, am, pp18-20;

It will be understood that I have not made any criticism of the conduct of Station Officer Campbell on the night in question as incident commander. I have done what I am obliged to do under section 6(1) of the 1976 Act, namely set out what can now be seen as reasonable precautions, with the benefit of hindsight and the information gleaned at the Inquiry, whereby the death might have been avoided.

In particular I accept the submissions by SF&R that Sir Graham Meldrum identified four particular factors of relevance namely: (i) the delay caused by staff trying to locate the fire before calling the Fire Service (ii) the fire alarm panel having been changed and the staff on duty not being familiar with the new panel (iii) the custom and practice at Rosepark of permitting residents to have their bedroom doors open at night and (iv) the post address of the premises not being the main entrance to Rosepark. I have taken these factors into account.

There are no submissions on behalf of the Balmer Partnership. The Care Commission agree the various contributory factors set out by SF&R in their submissions which have resulted in this fire being properly described as “unique”.

CHAPTER 45(1): DEFECTIVE SYSTEM OF WORK AS REGARDS MAINTENANCE OF THE ELECTRICAL INSTALLATION

Reference is made to Chapters 11 and 12.

I have made the following findings in DS1:

The system of maintenance of the electrical installation at Rosepark was defective.

This contributed to the deaths.

1. There was no adequate system of maintenance of the fixed electrical installation at Rosepark before the fire.

1.1. An adequate system of maintenance would have involved: (a) regular visual inspection; and (b) periodic inspection and testing in accordance with the IEE Regulations⁴²²⁰.

1.2. The only checking which was undertaken was that done by Mr Ross, which has been described above⁴²²¹. At no time did he inspect and test the electrical installation in accordance with the IEE Regulations.

1.3. Even if Mr Balmer's evidence that Mr Ross opened the plastic covers on the distribution boards and tripped circuit breakers⁴²²² were to be accepted, this would fall well short of inspection and testing to IEE standards.

1.4. The occasional walk-through by Mr Ross, done without any record being kept, and as a favour⁴²²³, did not amount to such a system.

⁴²²⁰ Chapter 12, paras. 1-8; Chapter 44(2).

⁴²²¹ Chapter 12, paras. 12-29.

⁴²²² Chapter 12, para. 16.

⁴²²³ Chapter 12, paras. 12-14.

1.5. It was, in any event wholly, inadequate. Even on Mr Balmer's description of what Mr Ross did, what was done did not meet the Home's obligation to maintain the electrical installation. It did not meet the IEE Requirements for periodic inspection and testing.

1.6. In any event, an adequate system of maintenance requires appropriate record-keeping. No records of Mr Ross' work was kept⁴²²⁴ – a circumstance which reflects, perhaps, the informality of what was done, and its limited nature as compared with what would have been required of an adequate system of inspection of the fixed electrical installation.

1.7. The approach of Mr Balmer, who, for these purposes was the responsible person in the management of Rosepark, to the issue of maintenance of the electrical system, is illustrated by:

1.7.1. His apparent willingness to base the approach to this matter on a casual conversation with an unknown workman and his understanding of what that implied⁴²²⁵.

1.7.2. The arrangement which he made with Mr Ross, and the documentation which he produced in that regard, which presented a misleading impression of the arrangements in place at the home in respect of the maintenance and inspection of the fixed electrical installation⁴²²⁶.

2. The defects in the system of maintenance of the electrical installation contributed to the deaths. Had there been a proper system of maintenance of the electrical installation, this would have included periodic inspection and testing of the electrical installation in accordance with the IEE Regulations. Had this been undertaken, the inadequate insulation at the back of the distribution board would have been identified⁴²²⁷. An adequate system of maintenance of the electrical installation

⁴²²⁴ Chapter 12, para. 14.

⁴²²⁵ Chapter 12, para. 16

⁴²²⁶ Chapter 12, paras. 18-29.

⁴²²⁷ Chapter 44(2), para. 13.

would have identified that defect and would have resulted in its rectification. The accident which caused the deaths would not have occurred. In that event, all of the deaths would have been avoided.

Note to Chapter 45(1)

There are no submissions on behalf of the Balmer Partnership. There are no submissions on behalf of any other interested parties which call for comment.

CHAPTER 45(2): INADEQUATE FIRE TRAINING AND DRILLS

Reference is made to Chapters 16, 17, 18, 19, 20, 23, 28 and 44(4)(B).

I have found at DS2 the following:

The system of work in respect of fire safety training and drilling of staff at Rosepark were defective.

This contributed to the deaths.

1. The deficiencies in the system of work in respect of fire safety training and drills at Rosepark have been described above: see Chapter 44(4)(B). In particular:-

1.1. The induction was inadequate.

1.2. There was no system of refresher training.

1.3. Drills were held haphazardly.

1.4. There was no system for ensuring that all members of staff received regular refresher training and drills at appropriate frequencies.

1.5. The arrangements in respect of nightshift were particularly unsatisfactory.

1.6. The training did not take into account the particular responsibilities which individual members of staff might be called on to undertake.

1.7. The training in the use of fire extinguishers was inadequate.

1.8. Management did not recognise that an important change in the fire safety arrangements – namely the new fire alarm panel – required to be reflected in the instruction of relevant staff.

2. These deficiencies were manifested in the position of each of the staff who was on duty on the nightshift on 31 January 2004⁴²²⁸.

3. This defective system of working contributed to some or all of the deaths. Had staff been well trained and drilled⁴²²⁹:

3.1. Ms Queen would have identified the correct zone.

3.2. Staff would have gone immediately to the correct part of the building and would have undertaken emergency fire fighting. Had they been well-trained in the use of fire-extinguishers, there was sufficient time for it to be likely that they would have been able to extinguish the fire.

3.3. Even if they had not been able to extinguish the fire, they would have closed the cupboard door and the bedroom doors, thereby buying sufficient time for the fire service (which on this hypothesis would have been summoned, even on the inadequate procedure followed at Rosepark) to deal with the fire.

Note to Chapter 45(2)

On behalf of the Balmer Partnership it is stated that the findings in the circumstances are not unreasonable. The finding is supported on behalf of SF&R. On behalf of the Care Commission it is stated that the evidence led at the Inquiry clearly enables the court to conclude that, as developed within Rosepark between 1992 and January 2004, the system of fire training was inadequate. The Care Commission do not take issue with this finding. No issue is taken with the finding on behalf of any of the staff members. On behalf of Brian Norton it is emphasised that the arrangements in respect of the night shift were particularly unsatisfactory.

⁴²²⁸ Chapter 20, paras. 63-74; Chapter 44(4)(B), para. 4.

⁴²²⁹ See Chapter 44(4)(B), paras. 7-8.

CHAPTER 45(3): MANAGEMENT OF FIRE SAFETY

Reference is made to Chapters 15, 16, 17, 18, 19, 20, 22 and 28.

I have made the following findings at DS3:

The management of fire safety at Rosepark was systematically and seriously defective.

The deficiencies in the management of fire safety at Rosepark contributed to the deaths.

Introduction

1. The specific deficiencies which have been mentioned above⁴²³⁰, and the reasonable precautions which have been identified⁴²³¹, fall to be seen in the context of the management of fire safety at Rosepark as a whole. The arrangements for the management of fire safety were systematically and seriously defective.

Standards

2. The key elements of successful health and safety management are set out in the Approved Code of Practice and Guidance on the Management of Health and Safety at Work Regulations⁴²³² and outlined in the HSE publication, *Successful Health and Safety Management*⁴²³³.

3. The general process of health and safety management is applicable to successful fire safety management both generally and in the particular context of a care home⁴²³⁴.

⁴²³⁰ Chapter 45(1) and (2).

⁴²³¹ Chapter 44.

⁴²³² Pro 1440; Rod Sylvester-Evans, 22 June 2010, am, pp. 9ff.

⁴²³³ 2nd edn, 1997; Rod Sylvester-Evans, 22 June 2010, am, p. 32

⁴²³⁴ Rod Sylvester-Evans, 22 June 2010, am, pp. 1-2, 40-42; David Charters, 20 July 2010, am, pp. 99-100.

4. Mr Sylvester-Evans set out those key elements in diagrammatic form under the following headings⁴²³⁵:-

- a. Policy – i.e. setting clear policies and objectives
- b. Organising – i.e. putting in place a structure and process to implement the policy objectives – which will include defining the roles and responsibilities of relevant staff, and communicating those roles and responsibilities to the staff concerned, as well as assessing the skills, training and competence of staff who have responsibilities to perform.
- c. Planning and implementing – which will include identifying, assessing and recording risks, identifying the control measures required in order to address the risks, providing appropriate training to staff, and setting performance standards.
- d. Measuring performance – i.e. monitoring, both proactively and reactively.
- e. Reviewing performance
- f. Auditing the whole process

5. The heading “Planning” includes adopting a systematic approach to risk assessment⁴²³⁶.

6. Mr Sylvester-Evans usefully summarized the essential requirements in the following way⁴²³⁷:-

“In essence, taking away all the management-speak issues, it’s: What do I want to happen and why? How do I make that happen? And the next point is simply implementing it, making it happen. The fourth point is checking that it happens and learning from mistakes and problems that you find ...”.

⁴²³⁵ Rod Sylvester-Evans, 22 June 2010, am, p. 32.

⁴²³⁶ ACOP, Pro 1440, para. 33.

⁴²³⁷ Rod Sylvester-Evans, 22 June 2010, am, pp. 1-2

7. He emphasized the need for management to take a proactive approach to the management of fire safety.
8. The process may be illustrated by reference to the specific issue of staff training.
 - a. Management should consider, having assessed and identified the risks presented by the particular workplace, what the training requirements of its staff are⁴²³⁸.
 - b. Management should articulate in writing, the standards which it requires as regards staff training to meet those particular risks⁴²³⁹.
 - c. Management should identify the members of staff who are to be responsible for delivering training to management's requirements. Management should ensure that the person to whom these responsibilities are delegated has been adequately trained and has a full understanding of what is required⁴²⁴⁰.
 - d. Management should communicate the required standards to the staff required to implement the training⁴²⁴¹.
 - e. Management should put in place a system for monitoring proactively whether or not its training requirements are actually being delivered to the standard which management has specified⁴²⁴².
 - f. If that monitoring should disclose a failure to meet the standards required by management, management should take steps to remedy the situation⁴²⁴³.

⁴²³⁸ Rod Sylvester-Evans, 21 June 2010, pm, pp. 68-69.

⁴²³⁹ Rod Sylvester-Evans, 21 June 2010, pm, pp. 67-68; 22 June 2010, am pp. 31-32.

⁴²⁴⁰ Rod Sylvester-Evans, 22 June 2010, am, pp. 76-77.

⁴²⁴¹ Rod Sylvester-Evans, 21 June 2010, pm, p. 69.

⁴²⁴² Rod Sylvester-Evans, 22 June 2010, am, pp. 32, 35.

⁴²⁴³ Rod Sylvester-Evans, 22 June 2010, am, p. 32

Deficiencies in fire safety management at Rosepark

9. Judged by these standards, the fire safety management at Rosepark Care Home was systematically and seriously defective.

Failure to set clear policies and objectives

10. The starting point for effective health and safety management is a clear statement of commitment by management. Leadership is crucial to enabling and sustaining a health culture. With respect to fire safety, management needs to show interest and commitment⁴²⁴⁴.

11. Management effectively delegated to Matron the formulation of policy. Production 259, the Policy Manual, was prepared by the Matrons at Rosepark and Croftbank. Although Thomas Balmer accepted that he had a responsibility to determine the policies of the Home⁴²⁴⁵, in practice, he adopted a passive attitude to the preparation of policies by the Matrons of the two homes⁴²⁴⁶.

12. The Health and Safety Policy stated:

“We will develop a control system, which is designed to provide speedy recognition and resolution of health and safety problems.”

The implication – borne out by the evidence – was that there was in fact no control system in place.

Failures of organization

13. It is essential that roles and responsibilities be clearly allocated. Management must make clear to relevant members of staff “this is what I expect you to do, and we’ll be monitoring that you do that”. And, once roles have been clearly identified,

⁴²⁴⁴ Rod Sylvester-Evans, 22 June 2010, am, pp. 70-74.

⁴²⁴⁵ Thomas Balmer, 4 May 2010, am, p. 47

⁴²⁴⁶ Thomas Balmer 4 May 2010, am, pp. 43-47.

staff with particular responsibilities should be trained to equip them to fulfill those responsibilities.

14. Key failures here were these⁴²⁴⁷:

a. Management did not have a proper appreciation of its role and responsibility in relation to issues of fire safety⁴²⁴⁸.

b. The respective roles of Matron and management were not clearly defined⁴²⁴⁹.

c. The Matron's responsibilities related to residents' care and nursing issues. At no time was it brought clearly to her attention that she was responsible for fire safety policies, training, equipment, fire alarms and drills or their records, procedures or risk assessments. She had no fire responsibilities in terms of her employment contract, legislation, or as a matter of fact on a day to day basis. She was only involved in basic staff introductory fire safety programme of fire awareness.

d. Management allowed a situation to develop in which, in effect, Mr Clark became the person to whom staff (including nurses in charge) turned for guidance in relation to matters concerning fire safety. He was wholly unqualified for that role.

e. Nurses in charge, particularly on the nightshift, had a particular responsibility which was not recognized by management, was not reflected in training, and which Ms Queen appears not to have appreciated herself⁴²⁵⁰.

⁴²⁴⁷ See generally Chapter 18 above.

⁴²⁴⁸ See paras. 15-17 below.

⁴²⁴⁹ Chapter 18, paras. 5-13.

⁴²⁵⁰ Chapter 18, paras. 14-15.

f. All staff might have to engage in emergency fire fighting. Although this was identified in the Policy Manual⁴²⁵¹, staff were not given the training to equip them to do this effectively⁴²⁵².

Management

15. Although Mr Balmer accepted ultimate responsibility for fire safety at Rosepark, management did not properly appreciate its responsibilities in that regard. A particular illustration of the blindness of management to its responsibilities in respect of fire safety is the issue of bedroom doors being left open. Management understood that leaving a bedroom door open involved a compromise of fire safety, yet took the view:

- a. That this was essentially a nursing matter; and
- b. That a resident, in effect, had a right to have his or her bedroom door left open.

16. A decision to leave one resident's bedroom door open involved a compromise of fire safety.

- a. There was accordingly a potential conflict between the desire of one resident to have his or her bedroom door left open and the right of all residents to be kept safe in the event of fire.
- b. There was also a potential conflict between nursing and medical needs on the one hand, and fire safety on the other.

17. It was the responsibility of management to address these potential conflicts and, having addressed the risks and their minimization: (a) to determine what the policy of the Home should be in this regard; (b) to articulate that policy; (c) to communicate that policy to staff; and (d) to monitor whether or not staff were implementing that policy. Management did none of these things.

⁴²⁵¹ Chapter 18, paras. 21-22.

⁴²⁵² Chapter 20, para. 45.

The respective roles of management and Matron were not clearly defined

18. The lack of clarity in respect of Matron's role has been discussed above. She was not equipped by training or otherwise to undertake that role. The management of a care home is not entitled to assume that even an experienced Matron is qualified and competent to deal with fire safety⁴²⁵³. There was no monitoring of whether Matron had taken any steps which management considered appropriate, albeit such steps had not been intimated to her, she had received no training in such a role, and resources were not available to her for this purpose.

Mr Clark

19. Mr Clark's formal role was in relation to testing the fire alarm system. Yet he came to be seen as a source of authoritative guidance on matters to do with the fire alarm system.

Nurse in charge on nightshift

20. Although management had identified that the nurse in charge had a responsibility to take the lead and to give instructions to other staff if the fire alarm sounded, management had not carried that through, by for example, addressing and articulating the additional requirements required for the training of such staff.

21. The December 2003 false alarms illustrated that nurses in charge on the nightshift were uncertain as to what they should do, in a situation potentially of serious danger.

22. Ms Queen had an inadequate appreciation of her role as nurse in charge. She believed that deciding how to respond to the emergency was a collective responsibility of those on duty, rather than her personal responsibility. However, she had received no training whatever in that role.

⁴²⁵³ Rod Sylvester-Evans, 22 June 2010, am, pp. 76-78; Anne Jarvie.

Emergency fire fighting

23. Although the potential responsibility of all staff for emergency fire-fighting was identified in the Policy Manual, staff were not given the training to equip them to do this effectively.

Planning and implementation*Risk assessment*

24. The fundamental failure under this head is the absence of any suitable and sufficient risk assessment. Without a suitable and sufficient risk assessment the process of fire safety management at Rosepark was fundamentally flawed⁴²⁵⁴.

25. Although the management at Rosepark had engaged Mr Reid to undertake a risk assessment in January 2003, the exercise undertaken by him did not produce a suitable and sufficient risk assessment. Indeed, management did not itself undertake, in the context of Mr Reid's exercise, any real assessment of the risks. Thomas Balmer, the person responsible for fire safety at Rosepark was not involved in the process.

26. There appears to have been a fundamental misapprehension of what the process of risk assessment required of management.

- a. Mr Balmer relied on the appointment of Mr Reid⁴²⁵⁵. He stated, for example, that they engaged a health and safety expert "just to have like an external eye coming in to make sure that we had the safest practices or if they had any concerns"⁴²⁵⁶.

⁴²⁵⁴ See Chapter above.

⁴²⁵⁵ Thomas Balmer, 4 May 2010, am, p. 74; 6 May 2010, pm, pp. 23-24.

⁴²⁵⁶ Thomas Balmer, 4 May 2010, am, p. 77.

b. Mr Balmer really left it to Mr Reid and did not himself apply his mind in the context of fire to the hazards, thinking about who was at risk, the nature of the hazards and the control measures⁴²⁵⁷. He assumed that Mr Reid would have applied his mind to the question of risks to the residents⁴²⁵⁸. In any event Thomas Balmer took no action on the basis of the risk assessment which he received from Mr Reid.

c. He also stated that “any input requirement for any risk assessment would fall onto the remit of the Care Manager and if it applied, in any shape or form to ourselves, it would immediately be raised to myself”⁴²⁵⁹. This represented a clear misunderstanding of the position. No steps were taken to advise Matron of this expectation.

Inspection of electrical installation

27. Had the process of risk assessment been addressed systematically, management would have addressed the question of whether or not potential sources of ignition were adequately controlled. In that regard management should have addressed the question of whether or not it had in place adequate arrangements for the maintenance of the electrical installation.

Emergency Plan

28. The Emergency Plan is a key control measure. The Emergency Plan requires to be written down, to avoid ambiguity and to provide a clear point of reference for training.

Procedure in the event of a fire alarm

29. A key part of the Emergency Plan – namely, how staff should respond in the event of a fire alarm – was not written down anywhere. This, in itself, was a serious

⁴²⁵⁷ Thomas Balmer, 7 May 2010, am, p. 70

⁴²⁵⁸ Thomas Balmer, 7 May 2010, am, pp. 100-101

⁴²⁵⁹ Thomas Balmer, 4 May 2010, am, p. 64.

deficiency⁴²⁶⁰. Leaving aside the merits or otherwise of the particular procedure adopted:

a. The question of whether or not there was a rider to the procedure as described by Mr Balmer would have been settled had the procedure been in writing.

b. The very fact of articulating the procedure in writing would have forced management to address the relationship between that rider and the basic proposition that staff should phone the Fire Service only if they found a fire.

c. There was a lack of clarity as to what was to happen if staff did not find a fire, and this was reflected in uncertainty on the part of the staff in that regard.

d. It meant that the procedure could not be clearly identified and reviewed: (a) by someone assisting management to undertake a fire risk assessment; or (b) by any regulator who might be interested. In fact, the only statement in writing of a procedure to be followed in the event of the fire alarm sounding (set out in Pro 656) was directly inconsistent with that followed at the Home⁴²⁶¹. Further, someone – such as Mr Reid - who viewed the video and was not aware of the practice at Rosepark might be misled as to the procedure which was in fact followed⁴²⁶². That misapprehension would be compounded if the person looked at questionnaires where the answer (D) had been given to Question 10⁴²⁶³.

30. The procedure adopted was fundamentally flawed. That fundamental flaw was illustrated by the false alarms in December 2003 and, tragically, by the events of 31 January 2004. Whatever the origin of the procedure, the deficiencies of the procedure should have been identified through a suitable and sufficient process of risk assessment.

⁴²⁶⁰ Rod Sylvester-Evans, 22 June 2010, am, pp. 54-58, 60-61.

⁴²⁶¹ Cp Rod Sylvester-Evans, 22 June 2010, am, pp. 66-67.

⁴²⁶² Thomas Balmer, 5 May 2010, am, pp. 71-72.

⁴²⁶³ Thomas Balmer, 5 May 2010, am, p. 72.

Evacuation plan

31. Rosepark had adopted an appropriate general approach to evacuation – namely progressive horizontal evacuation. That was, in principle, an appropriate strategy for a Care Home to adopt. But management had not addressed how, as a practical matter, that could be achieved, particularly in the case of corridor 4.

Setting performance standards

32. Management did not articulate performance standards in relation to key matters in relation to fire safety, including:

- a. Training and drills.
- b. Whether bedroom doors could be left open and, if so, in what circumstances.

Monitoring

33. One cannot have effective health and safety management which operates purely reactively. Otherwise, management may think that something is working when in fact it is not⁴²⁶⁴. The Approved Code of Practice refers to “active monitoring” which is checking in a proactive fashion that the standards of performance which management has set are in fact being achieved⁴²⁶⁵.

34. The Approved Code of Practice states that it may be appropriate to record monitoring activity to identify any underlying themes or trend which may not be apparent from looking at events in isolation. Recording provides a discipline internally within the organization, proving to the organization itself that its system is working, and also provides a proof of audit which can be shown to an external auditor or regulator. It may also enable problems which would otherwise go unrecognized to

⁴²⁶⁴ Rod Sylvester-Evans, 21 June 2010, pm, p. 71.

⁴²⁶⁵ Rod Sylvester-Evans, 22 June 2010, am, pp. 18-19.

be identified, for example if there is a series of false alarms which reflect an underlying problem or which is creating confusion⁴²⁶⁶.

35. Depending on the nature and size of the organization, it need not necessarily be the duty holder himself who undertakes the monitoring, but the duty holder has a responsibility to ensure that there is an appropriate system of monitoring in place – a system in which monitoring occurs, is effective, and which brings the results back to the duty holder. In a smaller organization, it may well be appropriate for the duty holder to undertake the monitoring or at least to be part of the monitoring team, not least to be seen to be championing the process⁴²⁶⁷. Furthermore:-

a. The monitoring should be done by someone who is one step remote from the activity being monitored. So, for example, in a context where Matron was clearly articulated as the person responsible for training staff, it would be appropriate for someone else to monitor the delivery of training in order to make sure that what she was delivering matched what the management expected to happen⁴²⁶⁸.

b. If monitoring is delegated, there must be a system of reporting back the results of the monitoring. It is essential that the duty holder has a clear and accurate view of the effectiveness of the health and safety arrangements⁴²⁶⁹.

c. If monitoring has been delegated, management must fix the standards or criteria against which monitoring is to take place⁴²⁷⁰.

36. The Approved Code of Practice enjoins that the immediate and underlying causes of incidents and accidents should be investigated to ensure that preventive and proactive measures are in place and effective⁴²⁷¹. “Incidents” would include “near misses”, situations which have the potential to cause harm. The recognition and

⁴²⁶⁶ Rod Sylvester-Evans, 22 June 2010, am, pp. 21-22.

⁴²⁶⁷ Rod Sylvester-Evans, 22 June 2010, am, pp. 22-23.

⁴²⁶⁸ Rod Sylvester-Evans, 22 June 2010, am, pp. 23-25.

⁴²⁶⁹ Rod Sylvester-Evans, 22 June 2010, am, pp. 26-27.

⁴²⁷⁰ Rod Sylvester-Evans, 22 June 2010, am, p. 27.

⁴²⁷¹ Para. 37.

investigation of such events is just as important as investigation of events which do in fact cause harm⁴²⁷².

Proactive monitoring

37. The management at Rosepark took an essentially reactive approach to monitoring and auditing in this context. When asked what he understood by the idea of auditing, Mr Balmer explained that “it is reactionary to a particular situation, whether it be any particular training or staff not turning up or sickness all that ... that is audited and taken care off”. It was put to him “do you again in relation to that really have in mind a situation where you respond to a problem that happens to arise?” and the response was “That was our general modus operandi, yes. As soon as a problem had arisen, take great care of, investigate it, outcome audit it and move forward”⁴²⁷³.

38. The need for proactive monitoring was illustrated in the evidence of Thomas Balmer.

- a. He assumed, erroneously, that corridor firedoors were closed at night.
- b. He assumed, erroneously, that bedroom doors would, generally speaking, be kept closed.
- c. He assumed, erroneously, that fire drills were held twice a year or six monthly.
- d. He assumed, erroneously, that nightshift staff had been participating in drills.

39. The management of Rosepark Care Home undertook no monitoring or auditing of any of the following matters:-

⁴²⁷² Rod Sylvester-Evans, 22 June 2010, am, pp. 27-28.

⁴²⁷³ Thomas Balmer, 4 May 2010, am, pp. 53-54.

- a. The frequency of fire drills.
- b. Which staff had the benefit of fire drills.
- c. Whether night staff were attending fire drills.
- d. The practice in relation to bedroom doors⁴²⁷⁴.
- e. Whether all staff had completed induction training which included an element of fire safety⁴²⁷⁵.
- f. Whether staff were receiving refresher training in fire safety⁴²⁷⁶.
- g. The incidence and frequency of false alarms⁴²⁷⁷.

40. Mr Balmer had never looked at individual staff training records in order to find out whether or not members of staff or what training members of staff had in relation to matters of fire safety⁴²⁷⁸. When asked whether he would regard it as part of the responsibility of management to audit the effectiveness and practical implementation of policies and procedures, Mr Balmer said this:-

“Well, I would expect our care manager to be on top of training, of all matters of training, and if she had any concerns relating to that I would expect the care manager to bring it to my attention”⁴²⁷⁹.

This was not an adequate approach.

Responding to incidents

41. In fact, the evidence does not support the proposition that management did in fact proceed in this way:

⁴²⁷⁴ Thomas Balmer, 4 May 2010, pm, pp. 60-62.

⁴²⁷⁵ Thomas Balmer, 5 May 2010, am, p. 111.

⁴²⁷⁶ Thomas Balmer, 5 May 2010, am, pp. 107-112; 6 May 2010, am, p. 92.

⁴²⁷⁷ Thomas Balmer, 4 May 2010, pm, pp. 39-41.

⁴²⁷⁸ Thomas Balmer, 5 May 2010, am, p. 122.

⁴²⁷⁹ Thomas Balmer, 29 April 2010, am, p. 89.

“As soon as a problem had arisen, take great care of, investigate it, outcome audit it and move forward.”

Management did not respond effectively to the issues presented by the false alarms in the attic in December 2003. The circumstances of these incidents revealed an alarming state of affairs, which should have prompted a serious and swift re-appraisal of fire safety arrangements on the nightshift.

42. Effective monitoring will depend on appropriate record-keeping. In this respect, too the systems at Rosepark were inadequate. Mr Balmer accepted that false or unwanted alarms should be recorded. He recognized that the pattern of alarms might indicate a particular problem which would need to be sorted out. He also recognized that if there were too many false alarms staff might not react appropriately in a real emergency situation⁴²⁸⁰. Yet he neither instructed Mr Clark to keep such records, nor took steps to check whether a record of false alarms was being kept.

Review

43. An effective process of review will identify any deficiencies disclosed by the process of monitoring, and articulate the remedial steps (and the time frame) required. The remedial actions must be properly followed through, implemented and closed out.

44. In addition, review of the system requires to be undertaken in order to ensure that it is appropriate in light of changes in legislation, in the workplace environment (e.g. changes in dependency levels of residents) or external changes (e.g. removal of fire service cover during a strike)⁴²⁸¹.

45. The level of dependency of residents at Rosepark had changed over time. Even if the number of residents in corridor 4 (depending on their level of dependency) had been acceptable when the Home opened, the level of dependency of the residents by January 2004 made it unacceptable to have that number of residents in that corridor.

⁴²⁸⁰ Thomas Balmer, 4 May 2010, pm, pp. 39-41.

⁴²⁸¹ Rod Sylvester-Evans, 22 June 2010, am, pp. 28-31.

46. Management were given two specific external prompts to a review of their fire safety arrangements.

- a. The Fire Service invited a review of the emergency arrangements in the context of the Millennium Bug.
- b. The Care Commission invited a review of the emergency arrangements in the context of the Fire Brigade Union strike.

On neither of these occasions did management undertake any fundamental review of the fire safety arrangements in place. They represent missed opportunities.

47. There were also other events which could and should have prompted management to review critically certain features of their fire safety arrangements.

- a. The introduction of the Fire Safety Video. Despite recognizing that this recommended a procedure quite different from that followed at Rosepark, management took no steps – for example by consulting the local Fire Safety Officer – to ascertain whether or not the procedures should be changed. Nor did the statements in the video in relation to closing bedroom doors lead them to review their practice in that regard.
- b. Management had also been given clear advice in relation to the question of bedroom doors in the context of the extensions to Croftbank. Yet this did not prompt a review of the position at Rosepark.
- c. In the context of the second Croftbank extension, Mr Balmer had a discussion with Mr McNeilly about the ratio of staff to residents in particular zones, in which Mr McNeilly would have been relying on the SHTM 84 guidance. Yet this discussion did not prompt any review of the position at Rosepark.

These deficiencies contributed to the deaths

48. Had there been an adequate system of fire safety management at Rosepark, the situation on 31 January 2004 would have been quite different.

49. Had the process of risk assessment identified the need for inspection and testing of the electrical system, and management put in place appropriate arrangements for the inspection of the system, the absence of appropriate cable protection would have been identified and the fire would not have occurred.

50. But even if the fire had occurred, a number of key circumstances would have been quite different if there had been an adequate system of fire safety management:

a. A suitable and sufficient risk assessment would have been undertaken, with the consequences identified above as regards: (a) the protection of the means of escape; (b) the Emergency Procedure and the arrangements for contacting the Fire Service; and (c) the arrangements for training and drills.

b. Management would have clearly articulated the roles and responsibilities of: (a) Matron; (b) the nightshift staff nurse in charge; (c) members of staff who might require to engage in fire-fighting. Management would have articulated clearly what it expected as regards training and drills, would have ascertained whether or not Matron was in a position to meet its requirements, and would have provided such additional resources as it identified as being necessary to achieve its objectives.

c. Management would have appreciated that a change in the fire alarm panel was something which required appropriate instruction to be given to staff who would need to interpret and operate the panel.

d. Management would have put in place a control system, involving appropriate standard-setting and record-keeping, and proactive monitoring to ensure that its expectations were being met.

e. Management would have responded actively to “near misses”, and in particular to the serious situation exemplified by the December 2003 false alarms.

f. Management would have reviewed the system actively in response to the external stimuli mentioned above.

51. The way the staff responded on the night of 31 January 2004 was just what might be expected of staff who had not received adequate fire safety training, and who had – by reason of exposure to false alarms – become complacent. Had the staff been properly trained in a manner consonant with the tasks that would face them in that emergency situation they would have behaved quite differently and that, either on its own, or in conjunction with other changes which would have been put in place had the system of fire safety management not been defective, have avoided some or all of the deaths.

Note to Chapter 45(3)

The submissions on behalf of the Balmer Partnership record “it is accepted that the proposed determinations are appropriate”. Findings are supported by SF&R. On behalf of the Care Commission it is said “there is no doubt, based upon the evidence that, had there been an adequate system of fire safety management at Rosepark, the outcome on 31 January 2004 would have been quite different. Numerous issues combined which cumulatively resulted in the events of that morning taking the catastrophic course that they did.” There are no submissions on behalf of any of the other interested parties which challenge these findings.

CHAPTER 45(4): MANAGEMENT OF THE CONSTRUCTION PROCESS

Reference is made to Chapters 6, 7, 8, 9, 11 and 12.

I have found under DS4:

The management of the construction of Rosepark was defective.

This contributed to the accident and to the deaths.

1. Mr Balmer took what was, for a building of this size and nature, an unorthodox approach to its procurement⁴²⁸². He chose to manage the project himself, engaging the separate trades on individual and separate contracts⁴²⁸³. He accepted that he was, in effect, the main contractor and clerk of works for the project⁴²⁸⁴.

2. The process of coordinating a construction project requires a certain skill⁴²⁸⁵. As Mr Spencely put it “building is a serious business and somebody needs to understand the totality of the building”⁴²⁸⁶. A professional main contractor would, if he is not on site himself, have a site agent⁴²⁸⁷ or clerk of works on site. Mr Balmer was on site himself, but did not have the experience to be expected either of a professional main contractor or of a clerk of works⁴²⁸⁸. While he had some experience of project managing construction projects, he had no experience of managing a project which involved structural fire precautions of the sort required at Rosepark⁴²⁸⁹. He did not engage a professional clerk of works to protect his position⁴²⁹⁰. Nor did he engage a professional architect to provide the periodic

⁴²⁸² William Dickie, 14 January 2010, pm, p. 8.

⁴²⁸³ Chapter 6, paras 20-23.

⁴²⁸⁴ Chapter 6, para. 23.

⁴²⁸⁵ John Spencely, 23 July 2010, am, pp. 17-18.

⁴²⁸⁶ John Spencely, 23 July 2010, am, p. 77.

⁴²⁸⁷ John Spencely, 23 July 2010, am, p. 17.

⁴²⁸⁸ William Dickie, 14 January 2010, am, pp. 172-174.

⁴²⁸⁹ Chapter 6, para. 23.

⁴²⁹⁰ John Spencely, 23 July 2010, am, pp. 18-19.

supervision which would be implied in a full service engagement⁴²⁹¹. There were no satisfactory written contracts between Mr Balmer and the architect, or the various subcontractors, setting out the contractual obligations of the contracting parties.

3. This had two consequences particularly germane to the circumstances of this inquiry.

3.1. A professional main contractor would have insisted on seeing testing and inspection documentation from the electrical contractor as well as a certificate under the IEE Regulations⁴²⁹².

3.2. There were no fire dampers. Mr Balmer appreciated that the drawing referred to fire dampers. He inferred what the purpose of a fire damper was, but did not know what a fire damper looked like. There were no written contractual arrangements as to what Star Electrical were to provide in terms of the subcontract, in particular with regard to the provision or otherwise of fire dampers. A professional architect, a main contractor or clerk of works would have identified the absence of dampers. This would have been evident to someone who knew what the type of damper which would at that time have been used in a building such as this looked like.

4. Mr Balmer did not ask for inspection and testing documentation for the electrical installation following completion⁴²⁹³. Had he done so, the absence of inspection and testing would have become apparent and such inspection would, no doubt, have been undertaken. An inspection in accordance with IEE requirements would have disclosed the absence of protective insulation at the cable knockout. This would have been remedied and the deaths would have been avoided. This defect in the management of the construction of Rosepark contributed to the accident and to the deaths.

⁴²⁹¹ Chapter 6, paras. 40-41.

⁴²⁹² George Harvie, 29 January 2010, am, pp. 87-88; see also 2 February 2010, am, pp. 7-8, 105.

⁴²⁹³ Chapter 6, para. 44.

5. The absence of fire dampers resulted in the passage of smoke and toxic gases through the ductwork which made a contribution to the toxic atmosphere in corridor 3. However, there are significant uncertainties as to the quantity and significance thereof relative to the smoke and toxic gases passing through the open corridor firedoor⁴²⁹⁴. The Crown has sought a determination in respect of this issue under section 6(1)(c). Although a material contribution to the toxic atmosphere would be enough⁴²⁹⁵, given the uncertainties attendant on the matter, the Crown does not seek a determination under this head in respect of fire dampers. This is because the evidence does not point conclusively to the fact that the smoke which came into corridor 3 on its own would have contributed or caused the deaths.

6. Additionally the absence of dampers allowed smoke in the loft space to penetrate the grill in the ceiling of corridor 2 and thick black smoke was seen in corridor 2, namely the lift compartment. This smoke gave confirmation to Station Officer Campbell, the Fire Officer in charge, that the fire was in fact where he had been advised by staff, namely in the lift shaft area on the lower floor. Had there not been heavy black smoke in this area when fire fighters initially came to Rosepark, the course of the fire fighting would have been different.

Note to Chapter 45(4)

Inspection and testing of the electrical installation could have avoided the fire.

As far as the absence of dampers is concerned the Crown has sought a finding on this issue under section 6(1)(c). I think that is well founded and I have made the appropriate finding at RP3.6. As I explain in my note to Chapter 44(3)(F) a contribution to the toxic atmosphere is enough for section 6(1)(c) as it allows the conclusion that reasonable precaution of the provision of dampers might have avoided the deaths. However, given the uncertainty as to whether the smoke which came from the loft space as a result of the absence of dampers did in fact contribute to the deaths,

⁴²⁹⁴ Chapter 37.

⁴²⁹⁵ Chapter 44(3)(F), para. 6.

I consider the Crown are correct not to seek a finding in terms of section 6(1)(d). This deals with the submissions on behalf of North Lanarkshire Council.

On behalf of the Balmer Partnership it is said “Subject to the discussions and observations earlier regarding these issues the proposed determinations are appropriate”. This is, I take it, a reference to the submissions in Chapter 6 that Thomas Balmer did not understand that he only had a “plans only” arrangement with the architect and that his architect would be carrying out inspections of the site as he thought appropriate. Thomas Balmer expected Mr Dickie to draw anything which was glaringly wrong to his attention. With the benefit of hindsight, it is suggested there was confusion between Mr Dickie and Thomas Balmer about the precise role that Mr Dickie would play on site.

I have to say that, for the reasons which I set out in Chapter 6 paragraph 41, I take the view that Mr Dickie was employed on a plans only basis and that his attendance at site from time to time did not imply that he was undertaking a full service responsibility.

These findings are supported by SF&R. The Care Commission has no observations. There are no other submissions from interested parties which call for comment.

CHAPTER 45(5): THE INTERACTION BETWEEN ROSE PARK AND LANARKSHIRE HEALTH BOARD

Reference is made to Chapter 26 and in particular paragraphs 273-281 thereof.

I have found DS5:

The following were defects in the system of working by Lanarkshire Health Board as regards regulation of nursing homes, and in particular Rosepark Care Home, which contributed to the deaths:

DS5.1 The regime of inspection instituted by Lanarkshire Health Board, and operating during the period 1992 to 2002, was based on an inadequate appreciation of the scope of the statutory responsibilities of Health Boards under the Nursing Homes Registration (Scotland) Regulations 1990 (“the 1990 Regulations”);

DS5.2 The regime of inspection was not advised by any clear determination by the Health Board of what standards of fire precautions it considered to be sufficient and suitable in terms of regulation 13 of the 1990 Regulations;

DS5.3 The system of working of the inspection teams of Lanarkshire Health Board between 1992 and 2002 was defective in that it did not recognize that it was for the Health Board, through its inspectors, to examine the sufficiency and suitability of all of the facilities provided, precautions taken and arrangements made by the person registered, as regards fire precautions, under regulation 13 of the 1990 Regulations;

DS5.4 The system of working of the inspection teams of Lanarkshire Health Board between 1992 and 2002 was defective in that it was conducted on the basis of a fundamental misunderstanding of the role of Strathclyde Fire and Rescue Service in the inspection of nursing homes over that period of time.

The defects in the systems of work of Lanarkshire Health Board contributed to some or all of the deaths.

These findings are made on a consideration of the evidence set out in Chapter 26. The following findings also fall to be made, in support of that determination, in light of the evidence contained in Chapter 26:

1. In terms of regulation 13(1) of the Nursing Homes (Registration) (Scotland) 1990 Regulations it was a matter for the Health Board to determine what it considered to be sufficient and suitable as regards those facilities to be provided, precautions to be taken and arrangements to be made by the person registered in terms of regulation 13(2)-(4)⁴²⁹⁶
2. The direction in regulation 13(1) that the standard of those facilities to be provided, precautions to be taken and arrangements to be made, in terms of regulation 13(2)-(4), shall be maintained for so long as registration remains in force carried with it a responsibility on the part of the Health Board, through the inspectors appointed in terms of regulation 11, to apply the standards it had set in the process of inspection which regulation 12 prescribed.
3. The Health Board took inadequate steps to comply with its statutory responsibility under regulation 13(1) for determining the sufficiency and suitability of the facilities provided, precautions taken and arrangements under that regulation in respect of matters of fire safety in nursing homes, and for checking that the standards it had determined were being maintained at Rosepark.
4. The evidence of the Health Board inspectors demonstrated that there was a superficial approach to inspection of matters of fire safety:

⁴²⁹⁶ Cf Colin Todd, 29 July 2010, am, pp21-22, on the historical reasons for the Health Boards assuming responsibility for regulation of fire safety;

- It was an approach that was not advised by any clear setting of standards of fire precautions by the Health Board.

- It was an approach that was not advised by any, or adequate, training of inspectors in the standards of fire safety expected by the Health Board such that they were suitably qualified to inspect standards of fire precautions at Rosepark⁴²⁹⁷;

- It was, therefore, an approach which was unlikely to secure that fire safety was being managed properly by the management at Rosepark⁴²⁹⁸.

The defects in the systems of work of Lanarkshire Health Board contributed to some or all of the deaths

5. Evidence was given by a consultant engineer and accident investigator, Rod Sylvester Evans. He was clearly qualified to speak to the role of a regulator in the position of the Health Board. Mr Sylvester Evans explained that management may respond to the way that regulators go about their task.

6. The role of the regulator affects the way that duty holders approach their task⁴²⁹⁹.

7. If the regulator is not strong in the article of setting standards and looking at health and safety issues, or if the inspection regime is lightweight or offers insufficient guidance the duty holder may respond accordingly⁴³⁰⁰.

8. A regulator may have focused on particular areas of concern that it knows about. Doing so may send a signal which may affect how the duty holder then goes about its

⁴²⁹⁷ Cf the definition of “authorised person” in regulation 1(2) of the 1990 Regulations;

⁴²⁹⁸ Rod Sylvester Evans, 23 June 2010, pm, p41;

⁴²⁹⁹ Rod Sylvester Evans, 23 June 2010, am, pp83-4;

⁴³⁰⁰ Rod Sylvester Evans, 23 June 2010, am, p85;

duty⁴³⁰¹. In addition there is always a veneer of compliance but the question is whether there is true understanding and implementation⁴³⁰². Fire safety was an area which was not being sufficiently penetrated by the Health Board inspectors⁴³⁰³

9. Weak and ineffective regulation of safety can send the wrong signal to management. If a particular aspect of safety is not seen as a high priority by the regulator then it may well be considered low priority by management and only given lip service by management. Lack of criticism may be inferred by management as acceptance of the level of safety provided⁴³⁰⁴.

10. Had proper consideration been given by the Health Board to the matter it is likely that it would have determined formally, and enforced through suitably qualified inspectors, standards of fire safety which built in the following particular precautions:

- An immediate call to the Fire Brigade should be made whenever the fire alarm sounds⁴³⁰⁵;
- Bedroom doors should be kept shut at night⁴³⁰⁶, or appropriate arrangements put in place to secure that bedroom doors were immediately closed in the event of a fire alarm sounding in the Home;
- Fire Drills, and refresher training, covering the procedure to be followed on the sounding of an alarm, should be attended by all staff, including night staff⁴³⁰⁷.

⁴³⁰¹ Rod Sylvester Evans, 23 June 2010, am, pp87-88;

⁴³⁰² Rod Sylvester Evans, 23 June 2010, am, p89;

⁴³⁰³ Rod Sylvester Evans, 23 June 2010, pm, pp38-39, 60-61;

⁴³⁰⁴ Rod Sylvester Evans, 23 June 2010, am, pp94-95;

⁴³⁰⁵ Thomas Lynch, 4 March 2010, am, pp87-88;

⁴³⁰⁶ Thomas Lynch 4 March 2010, am, pp88-89; Lance Blair, 9 March 2010, am, pp103-104;

⁴³⁰⁷ Colin Todd, 28 July 2010, am, pp55-57;

11. In these circumstances, the defective system of working contributed to some or all of the deaths. Had the system of working not been defective,

11.1 An immediate call would have been made to the Fire Brigade when the fire alarm sounded;

11.2 Bedroom doors would have been kept shut at night, or appropriate arrangements put in place to secure that bedroom doors were immediately closed in the event of a fire alarm sounding in the home.

11.3 Ms Queen would have identified the correct zone;

11.4 Staff would have gone immediately to the correct part of the building and would have undertaken emergency fire fighting. Had they been well trained in the use of fire extinguishers, there was sufficient time for it to be likely that they would have been able to extinguish the fire.

11.5 Even if they had not been able to extinguish the fire, they would have closed the cupboard door and the bedroom doors, thereby buying sufficient time for the Fire Brigade, which on this hypothesis would have been summoned, even on the inadequate procedure that followed at Rosepark, to deal with the fire.

Note to Chapter 45(5)

It is appropriate that I set out my comments on the submissions on behalf of Lanarkshire Health Board, SF&R and the Care Commission in respect of the findings in the Chapter and the evidence in Chapter 26. I do so in turn:

A LANARKSHIRE HEALTH BOARD

(1) A “Contribution” in terms of section 6 of the 1976 Act. It was submitted that there should not be a finding against Lanarkshire Health Board under section 6(1)(d) of the 1976 Act. “Contribution” in the 1976 Act it was argued, fell to be understood in close company with the other substantive statutory concepts in section 6 and was not free standing or severable from the requirements that any contribution must be part of the causative chain linking to the resulting deaths. It was submitted that, in the

context of a fatal accident inquiry determination under section 6, there required to be evidence that an alleged defect which contributed to any death is not simply an event in the history of the fact. A contributory event must be an event which had a real and continuing impact up to the point of death. It requires to be proved that any of the deaths under review resulted from the “accident”.

In my opinion it is important to note the terms of section 6(1)(d):

“The defects, if any, in any system of working which contributed to the death or any accident resulting from the deaths.”

The section accordingly contemplates the situation where the defects, if any, in any system of working contributed either to the death or any accident resulting in the death.

An accident can properly be described as “an unfortunate incident which happens unexpectedly and unintentionally, typically resulting in damage or injury”. The “accident” which caused the fire was an earth fault occurring where cable V passed through the right hand knockout at the back of the distribution box in cupboard A2. The live conductor of cable V came in contact with the metal edge of the knockout such as to generate an arc.

In my view it does not follow a determination under section 6(1)(d) can only be made if the defects in any system of working contributed to the accident resulting in the deaths. A finding under section 6(1)(d) can also be made if the defects, if any, in any system of working contributed to the deaths. On the factual basis which I have set out, had a proper system of inspection been in place by the Health Board in terms of Regulation 13 of the Nursing Homes Registration (Scotland) Regulations 1990, there would have been determined formally and enforced through its inspectors standards of fire safety which built in the following precautions:

- (a) an immediate call to the Fire Brigade should be made when the fire alarm sounded;
- (b) bedrooms doors should be kept shut at night; and
- (c) fire drills and refresher training, covering the procedure to be followed on the sounding of an alarm, should be attended by all staff, including night staff.

Had these defects been discovered during inspections by the Health Board, the Fire Brigade would have been called immediately, the staff would have acted appropriately when the fire alarm sounded, bedroom doors would have been shut. The deficient system of working which I have identified on the part of the Health Board contributed to the deaths. I accept that it did not contribute to the accident which caused the deaths, which was of electrical origin. I reject this submission.

(2) The statutory scheme 1992 to 2002. It was submitted that the ability for the scheme to have any effect ended on repeal. It was submitted there was no basis for any regulatory impact surviving the repeal of the Nursing Homes Regulation (Scotland) Act 1937 and the Nursing Homes Registration (Scotland) Regulations 1990. There accordingly should not be any finding under section 6(1) in respect of Lanarkshire Health Board. It was said that the repeal of the 1937 Act and the 1990 Regulations was a “*novus actus interveniens*”.

It was said that the introduction of a new regulator, namely the Care Commission on 1 April 2002 meant that any defects could not be causative of the deaths.

I have no hesitation in rejecting that submission. The Care Commission did not take over the obligations of the Lanarkshire Health Board. It is correct that the Lanarkshire Health Board ceased to be the regulator from 1 April 2002 when the Care Commission came into being. However the Care Commission became the regulator under a different legislative framework. Although it may have been the intention of Government, the Care Commission did not take over the obligations of Lanarkshire Health Board. Lanarkshire Health Board’s responsibilities were set out in the 1937 Act and the 1990 Regulations. The Care Commission’s responsibilities were set out in the 2001 Act and the 2002 Regulations. They were different legislative frameworks. As I have set out elsewhere, the Care Commission’s statutory responsibilities were substantially less prescriptive. In particular the Care Commission did not take over the owner’s obligations placed on Lanarkshire Health Board Regulation 13 of the Nursing Homes (Regulations) (Scotland) Regulations 1990.

(3) Lanarkshire Health Board Management Decision Making. It is submitted that an understanding of what was truly the Lanarkshire Health Board management's decision making in regard to the requirements for a sufficient and suitable scheme for fire safety under the 1990 Regulations must centre on the nature of the obligations of regulatory oversight imposed. The basis of the scheme of inspections distinguished between Regulation 8 and Regulation 13 obligations. Regulation 13 was founded on the Board being shown to have considered reasonably what was presented convincingly as being in place at Rosepark. The standard in respect of fire safety was set by the Fire Authority and the Board required to consider reasonably whether that was being maintained at Rosepark.

The determination which the Crown sought under section 6(1)(d) was concerned with compliance with the Health Board with its obligations under Regulation 13 of the 1990 Regulations. Regulation 13 required the Health Board to determine the sufficiency and suitability of certain fire safety standards, as set out in the Regulation. Had that been done, it would have been determined by the Health Board, and enforced through properly trained inspectors, standards of fire training which built in specific precautions. These were:

- (i) an immediate call to the Fire Brigade should be made whenever the fire alarm sounds;
- (ii) that the bedroom doors should be kept such at night or appropriate arrangements made to secure that bedroom doors were immediately closed in the event of a fire alarm sounding at the home; and
- (iii) that fire drills, and refresher training, covering the procedure to be followed in the event of a fire alarm sounding, should be attended by all staff, including night staff.

The precautions relate to matters which fall squarely within the terms of Regulation 13.

It was submitted on behalf of the Health Board that any claimed defect in continuity completeness and content of Regulation 8 records were not to be used in criticising the Health Board's management understanding of what might reasonably be

considered to be sufficient and suitable in the circumstances of the registered premises.

I accept the Crown submission that this submission is untenable. Regulation 8 is concerned with records. Regulation 13 was concerned with standards of fire safety, the sufficiency and suitability of which fell to be determined by the Health Board, and which standards of fire safety require to be maintained so long as registration was in force. If the Health Board inspectors were checking whether those standards were being maintained, the absence of records required under Regulation 8 would have been of obvious relevance.

Regulation 13(4)(b) of the 1990 Regulations required the person registered to consult with the Fire Authority on fire precautions. That requirement did not detract from the regulatory responsibilities of the Health Board under Regulation 13. There is no evidence before the Inquiry to indicate that the inspectors investigated what level of consultation existed between the management of Rosepark and the Fire Brigade. The evidence clearly indicated that there was a misunderstanding. Mairi McLeod thought the Fire Brigade was going out and checking matters from a fire perspective and in particular monitoring arrangements around the nursing home. That knowledge affected the way fire precautions were looked at. Her evidence was that the inspectors did not have the expertise - someone else would be examining fire precautions. In 2002 Margaret McCallum indicated that it was her and the Health Board's understanding that the Fire Brigade formally inspected the premises annually.

(4) “Suitable and Sufficient Standard was to be reasonably considered”. It was submitted that the Board's obligation under Regulation 13(1) could be satisfied by reasonably considering the letter of comfort and concluding that the letter would not have been issued (in 1992) in circumstances where the Fire Authority did not consider that the registered person's facilities, precautions and arrangements in relation to fire safety were suitable and sufficient. The Board understood that the letter of comfort followed an inspection and testing regime, and the Fire Authority witnesses understood that registration would be withheld until the officers were prepared to issue a letter.

It should be noted that the goodwill letter concluded:

“Prior to occupation of the premises a suitable fire routine should be formulated and effective steps taken to ensure that both staff and residents are familiar with the procedure to be followed in the event of fire.”

In my opinion the Health Board were not entitled to conclude, because the letter of comfort had been issued, the Fire Authority were satisfied in respect of the fire safety facilities, precautions and arrangements. The letter itself indicated that what was to be done in the event of fire had to be resolved by management and had not been the subject of scrutiny by the Fire Authority when the goodwill letter was issued. The goodwill letter bears no reference to recommended procedure when an alarm goes off, whether bedroom doors should be kept shut at night, and requirement for fire drills and refresher training. The letter of comfort only referred to (i) means of escape in case of fire (ii) escape lighting (iii) fire detection and alarm systems (iv) fire fighting equipment (v) fire safety notices. This letter of comfort did not in any way affect the Health Board’s obligations in terms of Regulation 13 of the 1990 Regulations, responsibility at the time of the inspections.

(5) Bi-annual inspections. It was submitted, in the totality of the evidence, the inspection process was much more than confined to a simple record checking, and adopted additional assistance of certificating bodies. Emphasis was placed on the letter of comfort. Mr Lynch had given evidence about his visit to the premises in 2000 and had not noted that door closers had been removed. However evidence appeared to indicate that only a few bedrooms were normally visited on an inspection. The evidence further indicated that the room without door closers were mainly on the lower floor. It is conceivable that rooms visited by Mr Lynch in 2000 did not have their door closers removed.

Reference is made to visits by the Fire Brigade. However this evidence must be seen in the context of the Board’s misunderstanding that these visits were fire safety inspections as opposed to familiarisation visits. While it is the case that obvious fire safety problems would be picked up at a familiarisation visit, details of the emergency procedure, arrangements for fire drills and training, and whether bedroom doors were

closed at night would not be matters which operational fire fighters would be concerned with on familiarisation visits.

The Health Board conclude:

“There was not any failure by Lanarkshire Health Board to appreciate its obligations created by the 1990 Regulations. There was not in fact an obligation to make an independent Health Board assessment of what was sufficient and suitable for fire safety under the 1990 Regulations beyond the Fire Authority assessment. There was an obligation to reasonably consider the maintenance of standards set by the Fire Authority on registration of the premises. The obligation was fulfilled.”

I do not accept that submission. In my view the position is satisfactorily set out in Chapter 26. I have no hesitation at all in coming to the view that the Health Board inspectors, none of whom had training in fire safety issues, were acting in good faith as they had a formidable reputation as far as inspecting care issues was concerned. The inspection team involved a senior nurse, a pharmaceutical expert and an administrator. These persons were not qualified to inspect fire safety issues. These inspectors were not in a position to pronounce that the arrangements in place in respect of fire safety in the Home were suitable and sufficient. They would ask whether there was fire training in place, but they would not be in a position to consider whether the arrangements were suitable and sufficient. I am certain that the major issue was a lack of appreciation by the Health Board of the role of the Fire Service during 1992 to 2002 in respect of fire safety inspections in care homes.

I take no issue with the submission that the Lanarkshire Health Board inspectors were trustworthy. The important point was that there were not sufficiently trained in issues of fire safety to effectively carry out the Health Board's responsibility in terms of Regulation 13 of the 1990 Regulations. The inspectors were under the impression that the premises were being inspected on a regular basis in respect of fire safety by the Fire Authority. This was not the case. After the initial registration inspection by the Fire Authority and the provision of the letter of comfort which, as I have already said, was restricted in its extent, the Fire Authority were only on the premises in respect of familiarisation visits (section 1(1)(d)), or if there were specifically called

upon to attend by a regulator or the owner for a specific purpose. In Strathclyde (unlike in Fife) the Fire Brigade were not routinely visiting care homes for fire safety inspections. It is true to say that, if at a familiarisation visit, a fire officer saw an obvious issue with regard to fire safety, he would draw that to the attention of the owners of the home. The officers attending familiarisation visits are operational officers, and not fire safety officers.

(6) Any finding should be based on an assessment of evidence which was natural and unstrained. It was submitted Lanarkshire Health Board witnesses gave evidence in a measured and reasonable way even when challenged.

I quite accept that the witnesses for the Lanarkshire Health Board did give their evidence in a measured and reasonable way. They set out the position as they saw it. As I have already made clear, a Fatal Accident Inquiry is an exercise in apply the wisdom of hindsight. My Determination is not a finding that there was fault on the part of any of the witnesses who gave evidence. The finding is that, with the benefit of hindsight, it can be seen that there were defects in the system of working on the part of the Lanarkshire Health Board between 1992 and 2002 and in particular in their interpretation of Regulation 13 of the 1990 Regulations. This contributed to the deaths in the manner which I have set out. It is proper to note that the approach which the Health Board inspectors adopted to fire safety was materially effected by their mistaken belief that the Fire Authorities were routinely making fire safety inspections in respect of care homes.

B STRATHCLYDE FIRE AND RESCUE

SF&R, in their submissions, point out that Lanarkshire Health Board took the view that they were entitled to accept that the Fire Authority would not issue a letter of comfort unless the fire safety facilities, precautions and arrangements were sufficient and suitable. They point out that that was not the case. A letter of comfort is specific. In the case of Rosepark it dealt with five issues namely: (1) the means of escape in case of fire (2) escape lighting (3) fire detection and alarm system (4) fire fighting equipment (5) fire safety notices. They were considered to be of a standard acceptable to SF&R. There was an addendum – “Prior to occupation of the premises a suitable fire routine should be formulated and effective steps taken to ensure that both staff and residents are familiar with the procedure to be adopted in the event of

fire". This included the emergency procedure, training and drills. It is clear that the letter of comfort did not make any provision regarding doors closed a night. Accordingly it is not appropriate for the Health Board to rely on the letter of comfort in respect of the issues complained of. The Health Board say that no fire officer noticed the door closure mechanisms were missing or disconnected and the context of carrying out section 1(1)(d) inspections. I have already made clear that familiarisation visits were for the purpose of fire fighters familiarizing themselves with the premises it was not a fire safety audit. Fire officers involved in such inspections were operational officers and not fire prevention officers.

C THE CARE COMMISSION

The Care Commission emphasised that Edward Hattie and Thomas Lynch's understanding of the role of the Fire Service attending Rosepark after the original letter of comfort was factual incorrect. Mhaire MacLeod's evidence that she understood the Home's fire policy had been approved by the Fire Service was a misconception.

With regard to sufficient and suitability of fire drills it is clear that a record was kept of such drills which took place and generally a list of those participating was retained. There was no consideration of whether it was carried out to the standard required in terms of Regulation 13(2)(i) of the 1990 Regulations. The Care Commission properly emphasise the lower priority given to fire safety in the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002, compared to the Nursing Homes Registration (Scotland) Regulations 1990. The Care Commission properly submitted that it was reasonable to draw the inference that their understanding of the various witnesses for the Health Board did not consider the Health Board had a role in assessing the sufficiency and suitability of fire precautions in the Home. Rather, it considered that its role was limited to confirming the existence of documents. The limited role of the Fire Service in the inspection of the premises was not appreciated.

D THE BALMER PARTNERSHIP – there was no observations on behalf of the Balmer Partnership who considered the proposed determinations reasonable.

SECTION 6(1)(e) – OTHER FACTS WHICH ARE RELEVANT TO THE CIRCUMSTANCES OF THE DEATH

CHAPTER 46(1) – ENFORCEMENT OF THE FIRE PRECAUTIONS LEGISLATION

Reference is made to Chapter 46(1) of the submissions for the Crown and interested parties.

The purpose of this chapter is to examine the statutory responsibilities of Strathclyde Fire and Rescue (“SF&R”) for enforcement of the workplace fire precautions legislation under regulation 10 of the Fire Precautions (Workplace) Regulations 1997. It considers the terms of the relevant legislation, the guidance available to Fire Services in Scotland relative to enforcement policy, and the evidence of witnesses so far as it bears upon the approach of SF&R, to enforcement.

Having regard to the evidence considered in this Chapter, at OF1 of my findings I have determined that, under reference to section 6(1)(e) of the 1976 Act, the following were facts relevant to the circumstances of the deaths:

OF1.1 Enforcement of the Fire Precautions (Workplace) Regulations 1997 was entirely dependent on a risk based approach which determined the premises that would attract inspection. At least in the area of operation of SF&R, care homes were not being inspected under the 1997 Regulations at all at the time of the fire.

OF1.2 Section 10 of the Fire Precautions Act 1971 authorised Fire and Rescue Authorities to seek a prohibition or restriction on the use of premises involving excessive risk to persons in case of fire (itself a remedy of last resort, as explained in chapter 46(1)). That section apart, the only situations which would have caused SF&R to be at a care home prior to the fire were (i) in the context of section 1(1)(d) visits or the giving of advice under section 1(1)(f) of the Fire Services Act 1947; (ii) a situation where an issue of concern has been raised direct by a third party; (iii) at the request of the regulator (in which case SF&R

would inspect), and (iv) at the invitation of the owner of the care home. Thus, the organisation with the expertise in matters of fire safety was not inspecting care homes regularly.

Introductory

1. With effect from 1 December 1997 the Fire Precautions (Workplace) Regulations 1997 (“the 1997 Regulations”) came into force. The substantive provisions of the 1997 Regulations were contained in part II⁴³⁰⁸.

2. Regulation 3 provided for the application of the provisions of part II, including, for present purposes, an employer. Regulation 4 made provision for firefighting and fire detection. Regulation 5 made provision for emergency routes and exits in the event of fire. Regulation 6 made provision for maintenance of the workplace and safety devices (in so far as they relate to fire precautions).

3. Part III provided for amendments to the Management of Health and Safety at Work Regulations 1992⁴³⁰⁹ (“the 1992 Regulations”). The effect of the amendments was to extend to the requirements of the 1992 Regulations the protections in part II of the 1997 Regulations. In particular the risk assessment required by regulation 3 of the 1992 Regulations was to extend to the requirements and prohibitions imposed on the employer by virtue of part II of the 1997 Regulations.

4. Under regulation 10 of the 1997 Regulations fire authorities were given responsibility not only for enforcing the provisions of part II of the 1997 Regulations but also regulations 1 to 4, and 6 to 11 of the 1992 Regulations, in so far as they related to general fire precautions (collectively known as “the workplace fire precautions legislation”). “General fire precautions” were defined in regulation 9 of the 1997 Regulations as meaning “measures which are to be taken or observed in relation to the risk to the safety of employees in case of fire in a workplace...”

5. The Fire Precautions Workplace (Amendment) Regulations 1999 (“the 1999 Regulations”) came into force on 1st December 1999 in order to address perceived

⁴³⁰⁸ Production 1430;

⁴³⁰⁹ Production 1428;

inadequacies in the implementation of the EC Directives which gave rise to the 1992 Regulations, and in particular to bring within the purview of the protections in the 1997 Regulations those premises which were certificated under the Fire Precautions Act 1971, and were previously excepted by virtue of regulation 3(5) of the 1997 Regulations⁴³¹⁰.

6. On 29th December 1999 the Management of Health and Safety at Work Regulations 1999 (“the 1999 Management Regulations”) came into force⁴³¹¹. By regulation 3 every employer was required to make a suitable and sufficient assessment of (a) the risks to the health and safety of his employees to which they were exposed whilst at work and (b) the risks to the health and safety of persons not in his employment arising out of or in connection with the conduct by him of his undertaking, for the purpose of identifying the measures he needed to take to comply with the requirements and prohibitions imposed upon him by *inter alia* Part II of the 1997 Regulations (as amended).

7. The definition of “general fire precautions” in regulation 9, and regulations 10(1) and (2) of the 1997 Regulations were left unamended by the coming into force of the 1999 Regulations. Regulations 9 and 10 of the 1997 Regulations (as amended) were therefore in the following terms:

“9...

(2) In these Regulations” the workplace fire precautions legislation” means

(a) Part II of these Regulations ...

(b) regulations 1 to 5, 7 to 12 and 13(2) and (3) of the 1999 Management Regulations, in so far as those regulations—

(i) impose requirements concerning general fire precautions to be taken or observed by an employer; and

(ii) have effect in relation to a workplace in Great Britain other than an excepted workplace,

and for this purpose “general fire precautions” means measures which are to be taken or observed in relation to the risk to the safety of employees in case of

⁴³¹⁰ Regulation 5(c)(i) of the 1999 Regulations;

⁴³¹¹ Production 1429;

fire in the workplace, other than any special precautions in connection with the carrying on of any process...

10. (1) It shall be the duty of every fire authority to enforce within their area the workplace fire precautions legislation.

(2) A fire authority may perform their functions under these Regulations through inspectors appointed by them pursuant to section 18(1) of the 1971 Act..."

8. A question has arisen in the Inquiry as to whether these provisions obliged Strathclyde Fire and Rescue ("SF&R") to undertake inspections of workplaces for the purposes of enforcement of the fire precautions legislation. The importance of the question arises from the probability that a system of inspection which included Rosepark would have involved a review of Mr Reid's risk assessment .

9. The evidence bearing upon these matters is set out below.

John Russell

1. John Russell was employed by SF&R from 1977. For about 18 years prior to 2004 Mr Russell served in the Community Safety Department of SF&R⁴³¹². He was a fire safety officer serving with SF&R when the Fire Precautions (Workplace) Regulations 1997 ("the 1997 Regulations") came into force⁴³¹³.

2. SF&R maintained an inspection regime in respect of premises which were designated under the Fire Precautions Act 1971 ("the 1971 Act")⁴³¹⁴. Between 1971 and 1997 certificated premises were inspected periodically to ensure that premises were complying with the conditions contained in their Fire Certificate. There were recognized timescales for inspection depending on the type of premises most nearly concerned⁴³¹⁵.

⁴³¹² John Russell, 9 August 2010, am, pp127-128;

⁴³¹³ John Russell, 9 August 2010, pm, p6;

⁴³¹⁴ John Russell, 9 August 2010, am, p130;

⁴³¹⁵ John Russell, 9 August 2010, am, pp131-133;

3. The process of certification under the 1971 Act required owners of premises to agree a fire routine procedure and to ensure that all members of staff were aware of that procedure. The agreed procedure was actually contained within the fire certificate.

4. Section 10 of the 1971 Act was concerned with premises involving excessive risk to persons in case of fire. The section was applicable to nursing homes⁴³¹⁶. It conferred on the Fire Authority (as defined in section 43 of the 1971 Act, being “the authority discharging in the area in which the premises are to be situated the functions of fire authority under the Fire Services Act 1947) the power to apply to the Court for an order prohibiting or restricting the use of any premises in respect of which the Fire Authority were satisfied that the risk to persons was so serious that, until such steps had been taken to reduce the risk to a reasonable level, such an order should be granted⁴³¹⁷.

5. Section 10 did not give rise to any specific regime of inspection by SF&R. It could take action whenever its attention was drawn to severe problems within particular premises. Section 10 was kept for very extreme circumstances where the risk of death was imminent. There might be other circumstances in which action was taken, such as where the Fire Brigade were on the premises undertaking inspections under other legislation, or where the Health Board had drawn its attention to an imminent fire risk. There was no proactive system of inspection under the 1971 Act⁴³¹⁸.

6. Section 10(2) of the 1971 Act as it was immediately before part 3 of the Fire (Scotland) Act 2005 came into force remained similar in effect albeit the procedure had been modified to allow for the service by the appropriate fire authority of a prohibition notice⁴³¹⁹.

⁴³¹⁶ Production 1832, p20; section 10(1)(a); John Russell, 9 August 2010, am, pp138-139;

⁴³¹⁷ Production 1832, p21, section 10(2);

⁴³¹⁸ John Russell, 9 August 2010, am, pp141-144;

⁴³¹⁹ Production 2117, page 44;

7. The Fire Precautions (Workplace) Regulations 1997 (“the 1997 Regulations”) came into force on 1st December 1997⁴³²⁰.

8. Mr Russell was asked how SF&R went about enforcement of the 1997 Regulations after they came into force. His response was that the Government had issued certain guidance and there had been certain discussions which revolved around the need for “a light touch”. The inference was that the 1997 Regulations had been written in such a way that the employer was responsible for fire safety in the workplace⁴³²¹.

9. Fire and Rescue services mainly concerned themselves with making sure that employers knew their responsibilities under the 1997 Regulations, and their attention was drawn to the Employer’s Guide⁴³²². In terms of enforcement SF&R was advised that when any contravention of the 1997 Regulations came to their attention they would enforce them. For the most part, however, the Government was expecting high levels of self compliance⁴³²³.

10. There was no programmed system of inspection of premises instituted for the purposes of enforcement of the 1997 Regulations. There was no guidance indicating that routine inspections should be undertaken. Such was the existing inspection workload that it would have been impossible for there to have been any planned in inspection programme. Inspection would be reactive to a complaint having been made to the Fire Brigade⁴³²⁴.

11. That position did not change when the 1997 Regulations were amended in 1999. The Fire Brigade was moving in the direction of a risk based regime of inspection and balancing its inspection resources relative to its duties under all applicable legislation. But the advice the Fire Brigade was getting was that the 1997 Regulations were different from the 1971 Act. They were more akin to health and safety legislation which focused on the employer’s responsibility to his employees. There were also

⁴³²⁰ Productions 1430; 1961; p1;

⁴³²¹ John Russell, 9 August 2010, pm, p7;

⁴³²² Production 1120;

⁴³²³ John Russell, 9 August 2010, pm, p8;

⁴³²⁴ John Russell, 9 August 2010, pm, pp10-11;

arrangements between the Fire Brigade and the Health Board (and latterly the Care Commission)⁴³²⁵.

12. Mr Russell recognised that if the procedure for dealing with a fire situation in a nursing home are inadequate that may have consequences both for residents and for employees⁴³²⁶

13. In summary, under the original 1997 Regulations, there was no proactive programme of inspection in furtherance of the duty of enforcement contained in regulation 10⁴³²⁷.

14. Mr Russell was referred to the two productions contained in the first inventory of productions lodged on behalf of the Scottish Ministers, being (i) a letter dated 23 December 1997 from Mrs M B Gunn, Head of the Fire Service and Emergency Planning Division of the Scottish Office Home Department, attaching a Memorandum with guidance on the Fire Precautions (Workplace) Regulations 1997, and (ii) a further letter dated 30 June 2000 from Mrs Gunn, this time on behalf of the Fire Service & Emergency Planning Division of the Justice Department of the Scottish Executive, attaching a Memorandum with guidance on the 1997 Regulations as amended by the Fire Precautions (Workplace) (Amendment) Regulations 1999⁴³²⁸.

15. Mr Russell recollected looking at various pieces of guidance at the time when the Regulations came into force, but he did not specifically recall the memoranda just described⁴³²⁹.

16. From the first item in the first inventory for the Scottish Ministers Mr Russell was referred to paragraph 45 of the Memorandum attached to Mrs Gunn's letter of 23 December 1997. Paragraph 45 was in the following terms:

⁴³²⁵ John Russell, 9 August 2010, pm, pp12-14;

⁴³²⁶ John Russell, 9 August 2010, pm, p17;

⁴³²⁷ John Russell, 9 August 2010, pm, pp24-25;

⁴³²⁸ Scottish Ministers' First Inventory, items 1 and 2;

⁴³²⁹ John Russell, 9 August 2009, pm, pp33-34;

“45. It is for Fire Authorities to determine their own enforcement policies. However, in their approach to enforcement of the Fire Regulations, they will need to consider scheduling their inspection programme to ensure that workplaces which pose a significant life risk in case of fire are a priority for both their initial and re-inspection programmes”

17. Asked to consider whether this guidance implied that what was in contemplation was that there would be something more than merely a reactive inspection programme under regulation 10, Mr Russell responded by saying that that was what Fire and Rescue Services were working towards. There was, however, no guidance to the effect that the Fire and Rescue Services had a specific duty to inspect all workplaces. It would, in any event, have been unrealistic given the huge number of workplaces concerned and the fact that Fire and Rescue Services had a limited number of inspecting officers. There would have been resource and staffing implications⁴³³⁰.

18. So, there was no inspection programme. But Fire and Rescue Services were looking, in discussion with HM Fire Inspectorate and others, about how it could come about. Any arrangement would have to be risk appropriate and fit in with the available staffing and resources. The regulatory impact assessment accompanying the 1997 Regulations stated that there were no significant or substantial cost implications for Fire and Rescue services in what was contained in them. An inspection regime for every workplace would have had cost implications⁴³³¹.

19. The passage into law of the 1997 Regulations was accompanied by no list of the new workplaces that were caught. Mr Russell estimated that some 100,000 additional premises in the Strathclyde area may have come under the scope of the 1997 Regulations, as compared with some 20-30,000 premises of which the Fire Brigade were already aware⁴³³².

20. Mr Russell’s position was encapsulated in the propositions put to him by the Court thus:

⁴³³⁰ John Russell, 9 August 2010, pm, pp37-39;

⁴³³¹ John Russell, 9 August 2010, pm, pp41-42;

⁴³³² John Russell, 9 August 2010, pm, pp56-58;

“Taking the [memorandum] on its own and reading it objectively it could well be said that it might contemplate an inspection programme; what you’re saying is that what you were told by government, namely that there should be a light touch, and the absence of any specific extra resources being made available to carry out an extended inspection programme, this did not take place and what, in practice, was done by the Fire and Rescue Services [was] merely to react if a matter was drawn to their attention, either as a result of complaint, or an invitation to inspect premises or, indeed, from any other source.”⁴³³³

21. Fire and Rescue Services were still working towards looking at how, when resources, processes and procedures were agreed, they might be able to put a programme into place⁴³³⁴.

22. In respect of the second item in the First Inventory for the Scottish Ministers, Mr Russell was referred to paragraph 59 of the Memorandum. It was in the following terms:

“It is for Fire Authorities to determine their own enforcement policies. However, in their approach to enforcement of the Fire Regulations, they will need to consider their existing programme of inspections to ensure that inspection of workplaces which pose a significant life risk in case of fire are a priority. They will be assisted in this matter with the development of a risk based approach to frequency of inspection of workplaces currently being undertaken as a joint initiative between the Home Office and the Chief and Assistant Chief Fire Officers’ Association, with participation also by HM Inspectorate of Fire Services for Scotland. This work forms part of a strategic approach to fire risk assessment being developed by a working party representing a cross section of service interests. It is hoped that the guidance from the working party will be available in Autumn 2000.”

⁴³³³ John Russell, 9 August 2010, pm, pp43-44;

⁴³³⁴ John Russell, 9 August 2010, pm, p44;

23. Mr Russell confirmed that his response to questions arising from paragraph 45 of the earlier guidance remained the same. In other words what was contemplated to be the way ahead in 1997 held true in 1999⁴³³⁵.

24. Mr Russell was also referred to paragraph 61 of the Memorandum. It was in the following terms:

“Fire authorities must be able to demonstrate that they are carrying out their duty to enforce the Fire Regulations. Regulation 10 (enforcement) does not impose a duty to cause workplaces within their area to be inspected for the purposes of enforcing the workplace fire precautions legislation. However, given the power to serve enforcement and prohibition notices and to commence prosecutions, there is an implicit need to inspect workplaces. So not only could a failure to discharge the duty to enforce (by not exercising specific enforcement powers where appropriate) result in a liability; but also a failure to adopt an inspection policy and programme, to ensure that the authority is complying with the duty to enforce, could lead to the same conclusion.”

25. Mr Russell stated that some fire officers had argued in favour of a duty to inspect (rather than a power to do so, as Mr Russell put it). However, the creation of such a duty would have had staffing and resource implications. The Fire and Rescue Services were quite stretched in terms of staffing and resources as it was. In any event, the emphasis was on light touch and the avoidance of over-regulation. Such was how Mr Russell described the political ethos and imperative at the time⁴³³⁶.

26. In as much as there might be resource implications in establishing a system of inspection Mr Russell confirmed the advice in Mrs Gunn’s letter of 30th June 2000 which was:

“There should be few costs for fire authorities arising from the introduction of the 1999 Regulations and publication of the guidance “FIRE SAFETY An

⁴³³⁵ John Russell, 9 August 2020, pm, pp44-45;

⁴³³⁶ John Russell, 9 August 2010, pm, pp48-50;

*employer's guide*⁴³³⁷. *The Regulatory Impact Assessment, which was laid with the Regulations before Parliament and relates only to those costs directly attributable to the introduction of the Regulations, identified costs which were expected to be restricted to the purchase of copies of the Regulations and the guide. The extension to the scope of the 1997 Regulations and the changes to the enforcement regime were not expected to give rise to other significant costs.*⁴³³⁸,

27. The Good Enforcement Concordat advised regulatory authorities to take a light touch to enforcement in their dealings with commerce and industry, and to allow every opportunity for compliance before the stage of enforcement was reached⁴³³⁹.

28. Prior to the 1997 Regulations coming into force HM Fire Inspectorate had explained to Fire and Rescue Services the ethos behind the new regulations and how it was expected that the Fire and Rescue Services would discharge their responsibilities relative to them. The Inspectorate had said that the inspection and re-inspection programme would be minimal. There might be sampling inspections. For the most part, however, the advice which Mr Russell encountered was that the 1997 Regulations were based on high levels of compliance with minimal impact in terms of inspection⁴³⁴⁰.

29. HM Fire Inspectorate also monitored performance of all of the Fire and Rescue Services relative to enforcement activities under the 1997 Regulations⁴³⁴¹.

30. In summary, it was only if the Fire Brigade was invited by the owner into a workplace, if there was a referral by the regulator (Health Board and then Care Commission) or if there had been a specific complaint about fire precautions that the

⁴³³⁷ Production 1120;

⁴³³⁸ Letter by Marion Gunn, addressed to the Clerk to the Fire Board, the Chief Executive, Fife and Dumfries and Galloway Councils, and the Fire Master, dated 30th June 2000, paragraph 21;

⁴³³⁹ John Russell, 9 August 2010, pm, pp63-64;

⁴³⁴⁰ John Russell, 9 August 2010, pm, pp67-69;

⁴³⁴¹ John Russell, 9 August 2010, pm, pp64-65;

Fire Brigade would come to be inspecting within a Care Home, and in particular inspecting the premises' fire risk assessment⁴³⁴².

Hugh Adie

31. Between 1994 and 2004 Mr Adie was the Deputy to the Assistant Fire Master, Community Safety, based as Strathclyde Brigade Headquarters. Between January and September 2004 Mr Adie held the position of Assistant Fire Master, Community Safety⁴³⁴³.

32. As far as visits to care homes were concerned they were underpinned by section 1(1)(f) of the Fire Services Act 1947⁴³⁴⁴. Otherwise, there were no formal arrangements between Lanarkshire Health Board and SF&R in respect of nursing homes⁴³⁴⁵.

33. SF&R did not have any statutory responsibility to go into nursing homes and inspect fire safety issues, unless requested to do so by the Health Board or the owner or occupier of the premises⁴³⁴⁶.

34. As regards premises involving excessive risk to persons in case of fire, the powers available to fire services under section 10 of the 1971 Act were not backed by any system of inspection in Strathclyde which went beyond either reacting to a matter which was brought to the Fire Service's attention or taking up a matter that was discovered when the Fire Service was on the premises for other reasons⁴³⁴⁷. As far Mr Adie was aware that approach was the same across the other Scottish Fire Services⁴³⁴⁸.

⁴³⁴² John Russell, 9 August 2010, pm, pp85-86;

⁴³⁴³ Hugh Adie, 30th June 2010, am, pp1-2;

⁴³⁴⁴ Hugh Adie, 29th June 2010, pm, p46;

⁴³⁴⁵ Hugh Adie, 29th June 2010, pm, p69;

⁴³⁴⁶ Hugh Adie, 29th June 2010, pm, p68;

⁴³⁴⁷ Hugh Adie, 30th June 2010, am, pp20-22;

⁴³⁴⁸ Hugh Adie, 30th June 2010, am, pp22-23;

35. Mr Adie was familiar with the 1997 Regulations. Officers in SF&R who worked for Mr Adie were involved in enforcement of the 1997 Regulations. Other than on request, however, there was no regular inspection of nursing homes, and no regime of inspection was set down when the 1997 Regulations were introduced. The 1997 Regulations were seen to be self-regulatory⁴³⁴⁹.

36. The establishment of a regime of inspection of all premises falling within the 1997 Regulations would have had financial consequences. There was no additional allocation of resources for that purpose⁴³⁵⁰.

37. In Strathclyde there was no procedure for carrying out spot checks or systematic checks of premises to see if they were complying with the 1997 Regulations. Whether or not SF&R became involved in enforcing the 1997 Regulations would depend on someone identifying (and being able to identify) that there was an issue that required to be brought to the attention of the Fire Service⁴³⁵¹.

38. There might be circumstances in which premises would become the subject of inspection. If, for example, the Fire Service was asked for advice and guidance and visited the premises, there would be a record of that visit in the premises file. SF&R had a risk based assessment programme and such a visit would result in consideration being given to the risk categorisation of the premises. If the premises presented a substantial risk, then that would result in a subsequent inspection. However, there was no formal programme of periodic inspection of all premises that fell within the 1997 Regulations. If there was no contact with SF&R then there would be no visit to the premises⁴³⁵².

39. Otherwise, the position in Strathclyde was that regulation 10 of the 1997 Regulations did not involve the undertaking of enforcement by means of a regime of regular inspection of nursing homes. Enforcement was either reactive or arose by

⁴³⁴⁹ Hugh Adie, 29 June 2010, pm, pp73-74;

⁴³⁵⁰ Hugh Adie, 30 June 2010, pm, pp63-64;

⁴³⁵¹ Hugh Adie, 29 June 2010, pm, pp80-89;

⁴³⁵² Hugh Adie, 29 June 2010, pm, pp5-9

reason of the Fire Service being on the premises for other reasons⁴³⁵³. To that extent enforcement depended on the capacity of individuals to identify breaches and report them⁴³⁵⁴.

40. Mr Adie spoke to the “odd occasion” when a local Fire Safety Officer might contact a nursing home, note that from the premises file that there had not been a visit by the Fire Service for some time, and ask whether it would be appropriate for somebody to go along and visit on a goodwill basis. It would very much depend on the local fire safety officer’s knowledge of the area and also his workload. Mr Adie was personally aware of two occasions when this occurred over a period of five years. While Mr Adie was based at Brigade Headquarters no consideration was given to placing such arrangements on a more formal footing⁴³⁵⁵.

41. Mr Adie did regard it as unusual that Rosepark was not the subject of a fire safety inspection between 1992 and the fire in 2004⁴³⁵⁶.

Jeff Ord

42. From May 1999 until January 2004 Mr Ord was the Fire Master of SF&R before taking up the position of HM Chief Inspector of Fire Services in Scotland⁴³⁵⁷.

43. Mr Ord was asked for his understanding of the role of the Fire Service in enforcing the fire precautions. Mr Ord stated that there was a duty on the Fire Service to enforce the 1997 Regulations for the safety of employees. When Mr Ord took over as Fire Master Strathclyde already operated what he termed a “risk based approach towards fire safety in premises” based on a high, medium and low risk catagorisation. The number of inspections would be determined by the category of risk that particular premises fell within. This process of prioritisation of fire safety inspections applied to inspections under other statutory enactments (and, in particular and by inference,

⁴³⁵³ Hugh Adie, 29 June 2010, pm, pp15-18;

⁴³⁵⁴ Hugh Adie, 29 June 2010, pm, p18;

⁴³⁵⁵ Hugh Adie, 30 June 2010, am, pp43-45; pm, pp74-75;

⁴³⁵⁶ Hugh Adie, 30 June 2010, am, p46;

⁴³⁵⁷ Jeff Ord, 1 July 2010, pm, pp3-4;

under the 1971 Act). Generally that approach was the same for workplaces where the 1997 Regulations applied⁴³⁵⁸.

44. It was not part of the statutory duties of Fire and Rescue services under the 1971 Act to undertake fire safety inspections in nursing homes⁴³⁵⁹.

45. When Mr Ord arrived at SF&R there was an existing programme of prioritisation for the inspection of premises designated under the 1971 Act⁴³⁶⁰. Nursing homes may by then have fallen within that process of prioritisation. However, he was unsure whether in fact they did. Equally it was possible that SF&R inspected nursing homes but Mr Ord could not specifically say one way or the other⁴³⁶¹.

46. Even if nursing homes had fallen within the process of prioritisation, Mr Ord explained that he would have been surprised if they were treated as a high risk priority. This was because of (i) historic evidence of lack of fires at nursing homes; (ii) the fact that nursing homes had to go through a process of registration and obtain from the Fire Service a letter of comfort, and (iii) the requirement that nursing homes be constructed in accordance with Building Regulations and receive a completion certificate⁴³⁶².

47. Mr Ord was unaware of any process of reviewing premises files for the purposes of, or with a view to, inspection pursuant to regulation 10 of the 1997 Regulations⁴³⁶³

48. Before the fire Mr Ord was not specifically aware whether nursing homes fell into a programme of inspection for the purposes of regulation 10 of the 1997 Regulations⁴³⁶⁴.

⁴³⁵⁸ Jeff Ord, 1 July 2010, pm, pp27-29;

⁴³⁵⁹ Jeff Ord, 1 July 2010, pm, p30;

⁴³⁶⁰ Jeff Ord, 1 July 2010, pm, p66;

⁴³⁶¹ Jeff Ord, 1 July 2010, pm, pp34-35;

⁴³⁶² Jeff Ord, 1 July 2010, pm, pp72-74; 2 July 2010, am, pp3, 20-22;

⁴³⁶³ Jeff Ord, 2 July 2010, am, p13;

⁴³⁶⁴ Jeff Ord, 1 July 2010, pm, p57;

49. Mr Ord anticipated that there would have been meetings to review the type and number of premises that might be inspected under the 1997 Regulations. However, these would not be meetings and discussions that the Fire Master personally would have been involved in. They were more matters for the Director of Fire Safety⁴³⁶⁵.

50. Mr Ord was referred to a passage from the evidence of Thomas McNeilly, the Fire Safety Officer at Bellshill, given on 25 January 2010. Mr McNeilly stated that his activities as a fire safety officer did not include activities directed towards enforcement of the fire precautions workplace legislation⁴³⁶⁶. Mr Ord expressed surprise on the basis that if workplaces were considered to be high risk for purposes of frequency of inspections then they ought to have been visited⁴³⁶⁷.

51. A regular system of inspections to enforce the 1997 Regulations would have had resource implications and over and above the sum of £500,000 referred to in the letter of Mrs Gunn dated 23rd December 1997⁴³⁶⁸. Mr Ord understood that representations were made about resources at the time⁴³⁶⁹

52. SF&R were audited by HM Fire Inspectorate. As far as Mr Ord was aware there were no representations made about the level of inspection being undertaken by SF&R under the 1997 Regulations⁴³⁷⁰.

Brian Sweeney

53. At the time when he gave his evidence Mr Sweeney was the Chief Officer of Strathclyde Fire and Rescue Service. He took up that position (known then by the title of Fire Master), initially on a temporary basis, on 1st March 2004. In the early 1990s Mr Sweeney was Station Officer i/c breathing apparatus and industrial training at the Brigade's training centre, Assistant Divisional Officer i/c Operations at Central

⁴³⁶⁵ Jeff Ord, 2 July 2010, am, pp15-17;

⁴³⁶⁶ Jeff Ord, 2 July 2010, am, pp33-38; Thomas McNeilly, 25 January 2010, am, pp79-88;

⁴³⁶⁷ Jeff Ord, 2 July 2010, am, p38;

⁴³⁶⁸ Scottish Ministers' First Inventory, Item 1, page 2; Jeff Ord, 2 July 2010, am, pp152-156; cf Letter by Mrs Gunn dated 30th June 2000, p5;

⁴³⁶⁹ Jeff Ord, 2 July 2010, am, pp156-157;

⁴³⁷⁰ Jeff Ord, 2 July 2010, am, p159;

Command Headquarters, then Head of Operations in Motherwell. After a period of time with the specialist investigation unit at Brigade Headquarters Mr Sweeney returned to Central Command as Divisional Officer, Grade 1, as head of personnel, then took up the position of Deputy Commander of Central Command. Between about July 2003 and 1st March 2004 Mr Sweeney was Deputy Fire Master. Between 2002 and 2003 Mr Sweeney was Director of Operations and Assistant Fire Master for Strathclyde⁴³⁷¹.

54. When the 1997 Regulations came into force Mr Sweeney's duties were confined to operations. There was another Deputy Commander who had charge of legislative fire safety enforcement⁴³⁷²

55. Nursing Homes were not designated under the Fire Precautions Act 1971 as requiring a Fire Certificate⁴³⁷³. The practical effect of not requiring a certificate was that they were not subject to a statutory regime of inspection by Fire and Rescue Services⁴³⁷⁴.

58 The Fire Certificate for designated premises would set out, in respect of the premises to which it related, details relating to the means of sounding an alarm, the means of escape, the provision of portable firefighting equipment, instruction and training of staff, and the conduct of fire drills. The certificate would be issued and re-inspected on at least an annual basis. Nursing homes were not subject to that regime of inspection⁴³⁷⁵.

59 Mr Sweeney was familiar with the 1997 Regulations⁴³⁷⁶. Mr Sweeney's evidence was that when the 1997 Regulations came into force there was no change to the approach taken by the Fire Service to non-certificated premises, such as nursing homes⁴³⁷⁷.

⁴³⁷¹ Brian Sweeney, 12 July 2010, am, pp1-7

⁴³⁷² Brian Sweeney, 12 July 2010, am, pp139-140;

⁴³⁷³ Brian Sweeney, 12 July 2010, am, p121;

⁴³⁷⁴ Brian Sweeney, 12 July 2010, am, p121;

⁴³⁷⁵ Brian Sweeney, 12 July 2010, am, pp122-124;

⁴³⁷⁶ Production 1430; Brian Sweeney, 12 July 2010, am, p125;

⁴³⁷⁷ Brian Sweeney, 12 July 2010, am, p126;

60 In relation to enforcement under regulation 10, Mr Sweeney explained that the understanding, derived from messages from Government (both Scottish Office and Scottish Executive), was that the new regulatory regime was concerned with the relationship between employer and employee⁴³⁷⁸. The main duties under the 1971 Act were not being disappled and the 1997 Regulations were ancillary to the 1971 Act regime. The 1997 Regulations were not to be the subject of a major new programme of inspection, regulation and control by the Fire and Rescue Services. Their task, *when asked to do so*, was to review the employer's risk assessment. As to who would do the "asking" Mr Sweeney referred to the premises owner, someone unfamiliar with the process of fire risk assessment who requested assistance, or a complaint in relation to fire precautions in particular premises⁴³⁷⁹.

61 In the Strathclyde area there were perhaps 20,000 certificated premises. The introduction of the 1997 Regulations added enforcement authority to an additional 100,000, perhaps more, buildings. It was absolutely clear from the guidance given out that this was not a major new programme of enforcement⁴³⁸⁰.

62 There was no expectation on the part of either UK Ministers or, latterly, the Scottish Executive that any additional burden would be placed on Fire and Rescue Services. Mr Sweeney recollected correspondence which reflected that an extra £500,000, across all of Scotland's Fire and Rescue Services, was to have been available to deal with any additional burdens. Government had undertaken an impact assessment and adjudged that no additional workload was to come from the introduction of the 1997 Regulations⁴³⁸¹.

63 The practicalities at the time were such that the 1997 Regulations did not give rise to a major new programme of inspections for buildings that had not been the subject of designation orders under the 1971 Act⁴³⁸².

64 After becoming Fire Master in 2004 Mr Sweeney did not become aware of any kind of system for the inspection of non-certificated premises under the 1997

⁴³⁷⁸ Brian Sweeney, 12 July 2010, am, pp127-128;

⁴³⁷⁹ Brian Sweeney, 12 July 2010, am, pp128-130;

⁴³⁸⁰ Brian Sweeney, 12 July 2010, am, p134;

⁴³⁸¹ Brian Sweeney, 12 July 2010, am, pp134-135;

⁴³⁸² Brian Sweeney, 12 July 2010, am, pp138-139;

Regulations. If there had been one Mr Sweeney would have expected to be aware of it⁴³⁸³. As far as Mr Sweeney was aware there was no inspection regime under the 1997 Regulations⁴³⁸⁴

65 Mr Sweeney was referred to the first production in the Scottish Ministers' first inventory, and in particular paragraphs 4 and 8 of Mrs Gunn's letter of 23 December 1997. Mr Sweeney's understanding of the position, in relation to the reference to risk assessment in paragraph 4, was that an examination of the risk assessment would only have proceeded on the basis that something deficient in its content had been brought to the attention of the Fire and Rescue Service. Paragraph 8 of the letter accorded with Mr Sweeney's understanding of the resource implications of the new Regulations⁴³⁸⁵.

66 Under reference to paragraphs 40 and 45 of the Memorandum attached to Mrs Gunn's letter the Court asked whether there could be enforcement without inspection. Mr Sweeney's evidence was that Fire Services were being told that this was to be a self-regulatory regime where the enforcement methodology was to be reactive. That was his opinion at the time. He agreed that implicit in paragraph 45 of the memorandum was a suggestion that the existing inspection programme would be enhanced to ensure that workplaces which posed a significant life risk in case of fire were a priority for both initial and re-inspection programmes⁴³⁸⁶.

67 Under reference to paragraph 59 of the memorandum attached to Mrs Gunn's letter dated 30th June 2000 Mr Sweeney interpreted the reference to "existing programming of inspections" as referring to certification inspections under the 1971 Act.⁴³⁸⁷

68 It may be that what was contemplated by the authors was the development of a risk based approach to frequency of inspections of workplaces. No distinction could or should be drawn between certificated premises (to which the 1997 Regulations now applied) and non-certificated premises. In the result Mr Sweeney thought that SF&R

⁴³⁸³ Brian Sweeney, 12 July 2010, am, pp141-142;

⁴³⁸⁴ Brian Sweeney, 12 July 2010, am, pp142;

⁴³⁸⁵ Brian Sweeney, 12 July 2010, am, pp146-149;

⁴³⁸⁶ Brian Sweeney, 12 July 2010, am, pp154-157;

⁴³⁸⁷ Brian Sweeney, 12 July 2010, pm, pp4-8

was moving towards such a risk based approach, but not for the purpose of enforcement of the 1997 Regulations, as amended⁴³⁸⁸

69 Fire and Rescue Services were being advised that the approach under the 1997 Regulations would be enforcement through self-regulation and compliance with the Fire and Rescue Service coming in and taking action if necessary. The source of this advice appeared to be internal discussion with officers who had had discussions with government officials. The drive was towards deregulation, self-regulation, and a lighter touch and less burden on industry⁴³⁸⁹.

70 Under reference to paragraph 61 of the memorandum Mr Sweeney made the point that if the purpose of the 1997 Regulations was to trigger an enforcement regime based on inspection then that should have been stated. Absent any additional resources a reasonable enforcement strategy might involve reacting to complaints from individuals or requests for advice but not inspecting as a matter of course⁴³⁹⁰.

71 In the result, as far Mr Sweeney was aware, SF&R did not engage in a new programme of inspection⁴³⁹¹.

Care Commission

72 According to Elizabeth Norton of the Care Commission, Strathclyde Fire and Rescue Service did not have a system of regular inspection of care homes at the time when the Care Commission first became involved in regulating care homes⁴³⁹².

Charles Stewart

73 Mr Stewart served with SF&R until 1995. He then joined HM Inspectorate of Fire Services in Scotland. At retirement, in 2003, he held the position of Senior Assistant Inspector of Fire Services.⁴³⁹³

⁴³⁸⁸ Brian Sweeney, 12 July 2010, pm, pp6-8;

⁴³⁸⁹ Brian Sweeney, 12 July 2010, pm, pp14-15;

⁴³⁹⁰ Brian Sweeney, 12 July 2010, pm, pp15-20;

⁴³⁹¹ Brian Sweeney, 12 July 2010, pm, pp19-20;

⁴³⁹² Elizabeth Norton, 26 April 2010, am, pp70-71;

74 The function of the Inspectorate was to assist the Secretary of State by inspecting, monitoring and reporting on the eight fire services within Scotland⁴³⁹⁴.

75 The inspection of fire services was undertaken by teams of three inspectors. Mr Stewart used to deal with matters of fire safety. His duties included examining the work of inspecting officers and considering returns from Fire Services⁴³⁹⁵.

76 In about 1999 the Inspectorate introduced performance and monitoring reports. These were less frequent but more in depth than the annual reports.⁴³⁹⁶

77 Mr Stewart's duties included reporting on the extent of compliance by Fire Services with their statutory duties. At the time when the 1997 Regulations came into force many Fire Services were struggling to inspect all of their certificated premises under the 1971 Act. The government was looking to move the responsibility for inspection away from Fire Services in favour of a system of, essentially, self regulation⁴³⁹⁷.

78 The extent to which Fire Services enforced the 1997 Regulations was the subject of inspection by the Inspectorate⁴³⁹⁸. Fire Authorities were encouraged to look at all of the premises on their books, whether certificated under the 1971 Act or not, and apply a risk based approach to determining whether there should be inspection under the 1997 Regulations⁴³⁹⁹.

79 The approach to inspection of nursing homes probably varied. In Strathclyde there was really no way that the Fire Service could cope with the number of new premises⁴⁴⁰⁰.

80 Care Homes were the kind of premises that attracted inspection under the 1997 Regulations. Whether they were inspected, however, was very much based on risk

⁴³⁹³ Charles Stewart, 12 August 2010, am, pp11-12;

⁴³⁹⁴ Charles Stewart, 12 August 2010, am, pp13-14;

⁴³⁹⁵ Charles Stewart, 12 August 2010, am, p15;

⁴³⁹⁶ Charles Stewart, 12 August 2010, am, p16;

⁴³⁹⁷ Charles Stewart, 12 August 2010, am, pp17-19;

⁴³⁹⁸ Charles Stewart, 12 August 2010, am, p19;

⁴³⁹⁹ Charles Stewart, 12 August 2010, am, pp25-26;

⁴⁴⁰⁰ Charles Stewart, 12 August 2010, am, pp26-27;

assessment. That assessment was very much based on whether or not the Fire Services in Scotland thought that the premises constituted a risk to persons in case of fire. Where the premises were purpose built, and they had an original goodwill report, central government was happy that the registration authority would manage the fire precautions within those premises⁴⁴⁰¹. The encouragement from central government was to place the weight of resources on those premises most in need of attention⁴⁴⁰². The evidence given by Mr Stewart may be thought to resonate with Mr Todd's explanation for why the Health Boards came to be responsible for the regulation of fire safety in nursing homes, against a background where nursing homes were not certificated premises under the 1971 Act⁴⁴⁰³

81 Mr Stewart was not surprised that Rosepark had not been inspected between 1992 and 2004. SF&R had far too many premises that still required an initial inspection for them to be able to do so. The guidance in the late 1990s was to the effect that there would be no additional resources available⁴⁴⁰⁴.

82 Mr Stewart spoke to an inspection of SF&R between 21 and 23 November 2000 and relative Performance Monitoring Report. The inspectors, of whom Mr Stewart was one, would have considered the extent of inspection work relating to enforcement of the 1997 Regulations. If SF&R had given an initial letter of goodwill, and the premises were the subject of another regulatory authority (which, in the case of Rosepark, they were), then those premises would be well down the order of priority for inspection⁴⁴⁰⁵.

83 The Performance Monitoring Report also made reference to an existing prioritisation process being in place for the 1997 Regulations⁴⁴⁰⁶.

84 Paragraph 45 of the memorandum attached to Mrs Gunn's letter of 23 December 1997, and paragraph 59 of the memorandum attached to Mrs Gunn's letter of 30 June

⁴⁴⁰¹ Charles Stewart, 12 August 2010, am, pp27-38;

⁴⁴⁰² Charles Stewart, 12 August 2010, am, pp54-55;

⁴⁴⁰³ Colin Todd, 29 July 2010, am, pp21-22;

⁴⁴⁰⁴ Charles Stewart, 12 August 2010, am, pp38-41;

⁴⁴⁰⁵ Charles Stewart, 12 August 2010, am, pp42-48;

⁴⁴⁰⁶ Charles Stewart, 12 August 2010, am, pp49-50;

2000, illustrated the approach which involved an inspection programme that was subject to a process of risk analysis⁴⁴⁰⁷.

85 Mr Stewart referred to an entry in the minutes of a meeting of “the Scottish Network CACFOA Fire Safety Committee Meeting” on 9th March 2000 in which he is recorded as having given a presentation in relation to determining the frequency of inspections under the 1997 Regulations (as amended in 1999). Mr Stewart recalled that this presentation related to work on which he was engaged in trying to rationalise and standardise the approach to frequency of inspection. There was at that point a concern about consistency of approach⁴⁴⁰⁸.

86 The initiative from central government was for Fire Services not to incur financial cost by releasing personnel to try and identify the number of new premises in their area as a result of the coming into force of the 1997 Regulations⁴⁴⁰⁹.

87 Over many years of annual inspections Mr Stewart had highlighted that the overwhelming majority of lives lost in fires occurred in domestic situations⁴⁴¹⁰.

Alan Sheach

88 Between 1989 and 2002 Mr Sheach was a fire safety officer with Fife Fire and Rescue Service (“FFRS”)⁴⁴¹¹.

89 Mr Sheach’s duties as a fire safety officer included carrying out fire safety inspections in nursing homes in the Fife area⁴⁴¹².

90 The inspections were undertaken on behalf of Fife Health Board and probably went on until Mr Sheach left FFRS in about 2001/2002⁴⁴¹³.

⁴⁴⁰⁷ Charles Stewart, 12 August 2010, am, pp57-61;

⁴⁴⁰⁸ Charles Stewart, 12 August 2010, am, pp64-66;

⁴⁴⁰⁹ Charles Stewart, 12 August 2010, am, pp73-74;

⁴⁴¹⁰ Charles Stewart, 12 August 2010, am, p75;

⁴⁴¹¹ Alan Sheach, 28 June 2010, pm, pp44-48;

⁴⁴¹² Alan Sheach, 28 June 2010, pm, pp52-53;

⁴⁴¹³ Alan Sheach, 28 June 2010, pm, p53;

91 The view of Mr Sheach and his colleagues in Fife was that nursing homes should be classed as high risk sleeping accommodation⁴⁴¹⁴.

92 The scope of the inspection encompassed maintenance checks on extinguishers and emergency lighting, the occurrence and frequency of fire training, a physical inspection of the premises (including fire exits, fire doors, fire notices) and speaking to staff about training and drills. There might then be a test of the fire alarm⁴⁴¹⁵. There was usually just one inspector involved and the visit would tend to last about one to two hours⁴⁴¹⁶.

93 These inspections covered all care homes in the area of FFRS, and occurred every six months⁴⁴¹⁷.

94 Mr Sheach would speak to one or two members of staff and check the fire log. He might ask what the actions of staff would be in terms of evacuation⁴⁴¹⁸.

95 FFRS also offered training services in the form of fire safety lectures and staff training, especially in new nursing homes. If there was any particular focus, it tended to be on the night staff. Evacuation was obviously much harder at night. So sometimes there would be exercises arranged during the day for the night staff to come in and attend⁴⁴¹⁹. The purpose was to emphasise just how difficult it is physically to move people to a place of safety⁴⁴²⁰.

96 Mr Sheach was asked about the relationship between FFRS and Fife Health Board. Mr Sheach advised that when FFRS carried out an inspection a report was sent to the Health Board. If a letter of comfort for the purposes of registration had been written it was followed up by the next Fire Brigade visit⁴⁴²¹.

97 Mr Sheach's understanding and recollection was that the inspections he had been describing did not have a statutory basis. It was done on a goodwill basis on

⁴⁴¹⁴ Alan Sheach, 28 June 2010, pm, p54;

⁴⁴¹⁵ Alan Sheach, 28 June 2010, pm, pp55-66;

⁴⁴¹⁶ Alan Sheach, 28 June 2010, pm, p57;

⁴⁴¹⁷ Alan Sheach, 28 June 2010, pm, p58;

⁴⁴¹⁸ Alan Sheach, 28 June 2010, pm, p59;

⁴⁴¹⁹ Alan Sheach, 28 June 2010, pm, p64;

⁴⁴²⁰ Alan Sheach, 28 June 2010, pm, p65;

⁴⁴²¹ Alan Sheach, 28 June 2010, pm, p72;

behalf of the Health Board in the interests of promoting good fire safety in what FFRS recognised to be high risk premises⁴⁴²². There was an agreement with the Health Board to do the inspections and, as far as Mr Sheach was aware, they were not being conducted under reference to any particular statutory power⁴⁴²³.

98 Mr Sheach did not, however, believe that the inspections for Fife Health Board were inspections for the purposes of the 1997 Regulations⁴⁴²⁴.

Colin Todd

99 Mr Todd gave evidence of his understanding about the practice of enforcement of the 1997 Regulations⁴⁴²⁵.

100 In his experience there was, at the outset, very little enforcement of the 1997 Regulations⁴⁴²⁶.

101 The message from central government was to adopt a light touch to enforcement. The legislation had been introduced out of necessity⁴⁴²⁷, whereas the priority of government was community fire safety and reducing fire deaths in private dwellings rather than increasing the burden on industry. The 1997 Regulations were a manifestation of the minimalist approach of simply adopting *verbatim* the wording of the European Council Directive⁴⁴²⁸

102 By way of background the scrutiny report prepared by an inter-departmental Government task force had concluded that fire safety legislation and its mechanism of enforcement was uncoordinated, conflicting and confusing to the end user⁴⁴²⁹.

103 When the United Kingdom's compliance with the Council Directives underpinning the 1997 Regulations was found to be wanting (in particular because the

⁴⁴²² Alan Sheach, 28 June 2010, pm, 72-73;

⁴⁴²³ Alan Sheach, 29 June 2010, am, pp131-133

⁴⁴²⁴ Alan Sheach, 28 June 2010, pm, pp90-92;

⁴⁴²⁵ Colin Todd, 28 July 2010, am, p58ff.;

⁴⁴²⁶ Colin Todd, 28 July 2010, am, p58;

⁴⁴²⁷ Colin Todd, 28 July 2010, am, pp58-59;

⁴⁴²⁸ Colin Todd, 28 July 2010, am, pp64-65;

⁴⁴²⁹ Colin Todd, 28 July 2010, am, pp59-60;

1997 Regulations excluded premises requiring a certificate under the Fire Precautions Act 1971) the 1999 Regulations were passed⁴⁴³⁰.

104 There was a gradual change in the approach to enforcement of the 1997 Regulations after 1997. Concerns in England and Wales that the earlier guidance was being interpreted to mean non-enforcement produced the Fire Precautions Act Circular No. 28⁴⁴³¹, which was essentially adopted by the Scottish Executive⁴⁴³². The message now being communicated was that fire authorities would require to consider a prioritised programme for inspection⁴⁴³³.

105 In Mr Todd's experience there was a gradual change in approach but it was still subject to variation⁴⁴³⁴. Fire authorities were on occasions engaging in the inspection of workplaces, at generally (but not exclusively) high risk premises⁴⁴³⁵.

106 There was a general understanding that the priority would be what became known as "assisted sleeping accommodation". That would include a care home. But it was for each fire authority to sort out its own priorities, knowing as it did the particular risks in its area⁴⁴³⁶. In terms of a generic type of prioritisation a care home would be at the top of the list⁴⁴³⁷.

Sir Graham Meldrum

107 Sir Graham's experience in England and Wales was that the 1997 Regulations were enforced very much along the lines of making risk assessments of individual buildings where people were employed to work⁴⁴³⁸.

108 Premises not previously within a fire authority's inspection programme were brought within that programme⁴⁴³⁹.

⁴⁴³⁰ Colin Todd, 28 July 2010, am, pp67-69;

⁴⁴³¹ Production 2101;

⁴⁴³² See Item 2, First Inventory for Scottish Ministers;

⁴⁴³³ Colin Todd, 28 July 2010, am, pp70-76;

⁴⁴³⁴ Colin Todd, 28 July 2010, am, pp79-80;

⁴⁴³⁵ Colin Todd, 28 July 2010, am, pp80-81;

⁴⁴³⁶ Colin Todd, 28 July 2010, am, pp81-82;

⁴⁴³⁷ Colin Todd, 28 July 2010, am, p82;

⁴⁴³⁸ Sir Graham Meldrum, 6 August 2010, am, p120;

⁴⁴³⁹ Sir Graham Meldrum, 6 August 2010, am, p121;

109 However, although in England and Wales a risk based approach to enforcement was adopted, that approach was based on the number of people employed in the building. The extent to which premises fell within a process of inspection depended on the type of area that the Fire Service covered and the other premises in that area⁴⁴⁴⁰.

Discussion

110 Clearly, no regime of inspection that included nursing homes was established for the purposes of enforcement of the 1997 Regulations. Enforcement was either reactive or arose because the Fire Service was on the premises for other reasons.

111 The expression “light touch” is a consistent expression running through the evidence. Mr Todd’s evidence was consistent with the evidence given by the officers of SF&R to the effect that, at least initially, the 1997 Regulations were seen as self-regulatory.

112 It is instructive that Alan Sheach gave evidence about what appears to have been a well established regime of inspection of nursing homes by FFRS (Fife Fire and Rescue Service). However, it was Mr Sheach’s belief that that regime was not advised by the 1997 Regulations. Rather it was derived from an arrangement that subsisted between the local Health Board and FFRS. Indeed the tenor of Mr Sheach’s evidence was that the inspection regime had been in place long before the 1997 Regulations were passed. Mr Sheach continued to work for FFRS until 2002.

113 Mr Todd’s evidence was that, even after 1999, the process of enforcement was variable. It was a matter for the individual fire authorities to determine the priorities in their area. Sir Graham Meldrum’s evidence, albeit of limited scope, was to similar effect.

114 Each of Mr Russell, Mr Adie, Mr Ord and Mr Sweeney expressed the view that the institution of a major new system of inspection would have had resource implications. Yet the terms of the guidance were to the effect that no additional

⁴⁴⁴⁰ Sir Graham Meldrum, 6 August 2010, am, pp126-127;

burden in terms of resources was anticipated and, according to Mr Adie, no additional allocation of resources was made.

115 The effect of Mr Russell's evidence was that, while there had been, from the outset, no inspection programme for nursing homes under the 1997 Regulations Fire and Rescue Services had been working towards that result. Just how far they had gone was, and is, unclear.

116 SF&R, like other fire and rescue services were the subject of inspection by HM Fire Inspectorate. The evidence of Mr Stewart was to the effect that the approach taken by SF&R could not be criticised. The factors that appear to have been of weight were (i) the giving of a letter of goodwill at the time of registration, and (ii) the existence of another regulator. Mr Stewart also drew attention to the practical implications for a Fire Service in the position of SF&R of instituting any major new regime of inspection.

117 If Rosepark had been the subject of inspection by a fire safety officer pursuant to regulation 10 of the 1997 Regulations it is probable that either (i) the absence prior to 6 January 2003, of a premises risk assessment, or (ii) the deficiencies in Mr Reid's risk assessment would have been noticed. That there was no such inspection is clearly a circumstance relevant to the fire at Rosepark.

118 However, I am not prepared to conclude that the absence of any system of inspection amounted to a defective system of working. Were the position to be otherwise, one would have expected HM Inspectorate immediately to have identified the deficiency and required remedial action to be taken. At least until 2002 statutory responsibility for the regulation of fire safety in nursing homes was clear, detailed and unambiguous in terms of the Nursing Homes Registration (Scotland) Regulations 1990. Fire safety should have been the subject of inspection by the Health Board at Rosepark, whatever view of risk was being taken by SF&R. On the other hand, no authority other than SF&R had any interest in familiarisation with the premises for operational fire fighting reasons. Familiarisation is not concerned with the likelihood of fire. It is concerned with securing, so far as possible, that when there is a fire, the attending fire fighters are familiar with the layout of the premises, the sleeping risk

and *inter alia* there means of access to the premises⁴⁴⁴¹. Familiarisation visits are not fire safety inspections.

119 The submissions by SF&R merit some comment on the statutory framework relating to regulation and enforcement of fire safety in nursing homes.

120 The Crown understands that it was the HSE which had general responsibility for the enforcement of the Management Regulations in relation to a nursing home such as Rosepark. However, Regulation 9 of the 1997 Regulations disapplied the enforcement regime of the Health and Safety at Work etc. Act 1974⁴⁴⁴² to the workplace fire precautions legislation to the extent that Fire Authorities were given enforcement responsibility under regulation 10 of the 1997 Regulations⁴⁴⁴³. It follows that the enforcing authority in relation to what is termed “the workplace fire precautions legislation”⁴⁴⁴⁴ was the Fire Authority⁴⁴⁴⁵.

121 It is plain from the terms of both the 1997 Regulations and the 1999 Management Regulations that the emphasis is on workplaces, and the safety and health of employees. This is scarcely surprising. The 1997 Regulations gave effect in Great Britain to (a) article 8(1) and (2) of Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work⁴⁴⁴⁶, and (b) article 6 of, together with paragraphs 4 and 5 of each of the annexes to, Council Directive 89/654/EEC, concerning the minimum safety and health requirements for the workplace⁴⁴⁴⁷, in so far as those provisions related to fire precautions and in so far as more specific legislation did not make appropriate provision⁴⁴⁴⁸

⁴⁴⁴¹ See eg. Sir Graham Meldrum, 6 August 2010, am, p163;

⁴⁴⁴² For which see Health and Safety at Work etc. Act 1974, ss18-20; Production 1833., pp

⁴⁴⁴³ Regulation 9(1) of the 1997 Regulations;,,

⁴⁴⁴⁴ Fire Precautions (Workplace) Regulations 1997, Part IV, regulation 9(2); Production 1430;

⁴⁴⁴⁵ Ibid., regulation 10(1);

⁴⁴⁴⁶ Official Journal No. L183/1, 29.6.89, p1, known as the Framework Directive;

⁴⁴⁴⁷ Official Journal, No. L 393/13, 30.12.89, p1, known as the Workplace Directive;

⁴⁴⁴⁸ Explanatory Note to the 1997 Regulations; Production 1430, p14; Framework Directive, article 1(3); Workplace Directive, article 1(3);

122 Responsibility for the regulation of fire safety in nursing homes was conferred on Health Boards (under the 1938 Act and the 1990 Regulations), and subsequently the Care Commission (under the 2001 Act and the 2002 Regulations, and national care standards). Responsibility for enforcement of the workplace fire precautions legislation, as defined in regulation 9(2) of the 1997 Regulations, rested with the Fire Service. That responsibility extended to non employees to the extent, and for the reasons, set out above⁴⁴⁴⁹.

123 As discussed in Chapter 46(6) fire safety enforcement under the Fire (Scotland) Act 2005 is now a matter where responsibility lies squarely with the Fire Service.

Note to Chapter 46(1)

There are no observations on behalf of the Balmer Partnership-. SF&R concur in their submission of the Crown that the absence of any inspection under the 1997 Regulations did not indicate any unsafe system of working.

The evidence which I have set out above clearly allows two facts which I have set out at the commencement of this Chapter to be seen as relevant to the circumstances of the deaths. The matter is all historical as fire safety enforcement under the Fire (Scotland) Act 2005 is a matter where responsibility now lies squarely with the Fire Service. The Inquiry was informed that SF&R now inspect care homes annually. Lessons have been learned and taken on board. Rosepark and other major fires in care homes have, I understand, underpinned this initiative. I would only comment that it appears clear, as Colin Todd outlined in his evidence, that the 1997 Regulations were introduced out of necessity to allow the United Kingdom to conform with a European Council Directive. The terms of the Regulations adopted verbatim the wording of the Directive. When the United Kingdom's compliance with the Council's Directive underpinning the 1997 Regulations was found to be wanting, in particular because the 1997 Regulation excluded premises requiring a certificate under the Fire Precautions Act 1971, the 1999 Regulations were passed.

⁴⁴⁴⁹ See para.124 supra.;

The message from Central Government was to adopt a “light touch”. There was no directive from Central Government indicating that routine inspections should be taken. It was clear that an inspection regime for every workplace would have cost implications and no additional budget was made available to Fire Authorities for this purpose. The Fire Authority would normally only visit a care home when a concern had been raised directly by a third party, at the request of the regulator, or at the invitation of the owner of a care home. Although SF&R were on the premises carrying out familiarisation visits, these were not fire safety inspections. It is significant that Brian Sweeney expressed the view that there was no expectation on the part of either United Kingdom Ministers or, latterly the Scottish Executive that any additional burden would be placed on fire and rescue services. The practicalities at the time were such that the 1997 Regulations did not give rise to a major new programme of inspections for buildings that had not been the subject of designation orders under the 1971 Act. The point made by Brian Sweeney in respect of paragraph 61 of the Memorandum of 2000 was that, if the purpose of the 1997 Regulations was to trigger an enforcement regime based on inspection, then that should have been stated. In the absence of any additional resources, reasonable enforcement strategy was to react to complaints when they were received. It is to be noted that in the Strathclyde area there were 20,000 certificated premises which were being inspected under the 1971 Act. The introduction of the 1997 Regulations added enforcement authority to some 100,000 more buildings.

For Scottish Ministers it was accepted that the evidence set out is generally fair and accurate. It was intimated on behalf of Scottish Ministers that they agree that the evidence indicated that SF&R did not establish a regime of inspection that included nursing homes for the purposes of enforcement of the 1997 Regulations. They further agree that, taking the evidence as a whole it cannot be concluded that in the absence of any such system of inspection amounted to a defective system of working.

I respectfully agree with the submission on behalf of Scottish Ministers that there is no requirement for me to adjudicate on whether any responsibility for enforcing the 1997 Regulations exists in relation to non-employees. This matter was not the subject

of detailed scrutiny at the Inquiry. The position of the Lanarkshire Health Board is set out in my note to Chapter 45(5).

With regard to the submission on behalf of North Lanarkshire Council, I accept that there was no duties or responsibilities incumbent on North Lanarkshire Council under either the Fire Precautions Workplace Regulations 1997 or the Management of Health & Safety at Work Regulations 1999 to inspect Rosepark Care Home. The Council had never held any regulatory responsibility for inspecting fire safety in care homes.

CHAPTER 46(2): CARE COMMISSION AND ITS INTERACTION WITH ROSE PARK

Reference is made to all the evidence set out in Chapter 27 hereof.

I have found at OF2 that the following facts were relevant to the circumstances of the deaths.

1. The proposals which gave rise to the Regulation of Care (Scotland) Act 2001 (“the 2001 Act”), the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 2002 (“the 2002 Regulations”), and the National Care Standards 2002, were not intended to effect any change in the level of scrutiny applied to the inspection of fire precautions in nursing homes.

2. The expectation of the sponsors of the new legislation was that the existing arrangements for inspection of nursing homes by Health Boards would continue under the auspices of the Care Commission.

3. The policy intentions behind the 2001 Act, 2002 Regulations and the National Care Standards 2002 reflected a desire, as reflected in the White Paper and subsequent Consultation Document, to move away from a prescriptive approach to inspection which called only for a home to be measured against its compliance with statutory requirements.

4. It is not appropriate for the Inquiry to make findings about the appropriateness of such matters of policy. However, it is a circumstance relevant to the fire at Rosepark that, intentionally or otherwise, the repeal of the Nursing Homes (Registration) (Scotland) Act 1938 (“the 1938 Act”) and the Regulation of Care (Requirements as to Care Services) (Scotland) Regulations 1990 (“the 1990 Regulations”), and their replacement with the 2001 Act, 2002 Regulations, and the National Care Standards, resulted in a weaker regime of inspection.

5. Regulation 19 of the 2002 Regulations was the only regulation to address matters of fire safety. It was a regulation concerned with the keeping of records. Until it was amended with effect from 1 October 2006⁴⁴⁵⁰, Regulation 19 required a

⁴⁴⁵⁰ The Fire (Scotland) Act 2005 (Consequential Modifications and Savings) (No.2) Order 2006, schedule 1, para. 6; Production 1879;

care provider to keep a record of the procedure which was to be followed in the event of a fire or other emergency, a record of all fire drills and alarm tests which have been conducted, and a record of any maintenance of equipment which is used in the provision of the care service⁴⁴⁵¹.

6. There was no provision in the 2002 Regulations directing the Care Commission to consider the sufficiency and suitability of the facilities provided, the precautions taken and the arrangements made in respect of fire safety, and in particular of the sufficiency and suitability of the procedure to be followed in the event of a fire or other emergency or the sufficiency and suitability of the recorded fire drills.

7. At Rosepark in 2003 fire safety was not scrutinised in any depth by the inspectors. The inspectors did not see fire safety as a priority. Nor did the Care Commission. At the time of the annual inspection on 20 March 2003 the Care Commission's focus was on the experience for the user of services, and, at a practical level, the establishment of a national regime of inspection applying national standards.

8. The 2001 Act, 2002 Regulations and National Care Standards together lent themselves to a lower level of scrutiny of fire precautions than ought to have been the case under the Health Board inspection regime.

9. The way in which fire precautions were examined at Rosepark on 20 March 2003 was unlikely to uncover defects in fire policies and procedures.

10. The inspection on 20 March 2003 did not discover any discrepancy between the contents of published fire notices at Rosepark and the procedure adopted by the home on the sounding of the fire alarm.

11. The inspection on 20 March 2003 did not discover that members of staff at Rosepark, and in particular night staff, were not being given regular fire safety training, and participating in fire drills.

⁴⁴⁵¹ 2002 Regulations, reg. 19(3)(b)(c) and (e)

12. The inspection on 20 March 2003 did not discover that there was a practice at Rosepark of permitting bedroom doors to remain open overnight.

13. The inspection on 20 March 2003 did not discover any deficiency in the premises' risk assessment. The inspectors were not, in any event, qualified to assess the suitability or sufficiency of that assessment.

14. On the evidence there was no basis for the finding in the inspection report, under care standard 4, that service users and staff were aware of what to do in the event of a fire and that all relevant fire safety information and tests were recorded.

15. On the evidence there was no basis for the finding in the inspection report, under care standard 5, that Rosepark had appropriate policies and procedures regarding fire safety.

16. The level of scrutiny of fire safety issues at Rosepark on 20 March 2003 was a product of an inspection regime whose focus was on care rather than safety.

Note to Chapter 46(2)

I would refer to the note attached to Chapter 27 hereof.

CHAPTER 46(3) – STATUTORY RESPONSIBILITY FOR FIRE SAFETY: CARE COMMISSION AND STRATHCLYDE FIRE AND RESCUE UNDERSTANDING OF THEIR RESPECTIVE ROLES

Reference is made to Chapter 46(2) of the submissions of the Crown and interested parties.

This Chapter considers the evidence bearing upon the understanding of the Care Commission about the role of Fire and Rescue Services in matters of fire safety in care homes, and also the evidence bearing upon the understanding of Strathclyde Fire and Rescue as regards the role of the Care Commission in relation to those matters. Chapters 27 and 46(1) set out the evidence bearing upon the relevant legislation and their approach to inspection of care homes. I have made certain findings already at OF2 which are relevant to this discussion.

I have found at OF3 the following facts were relevant to the circumstances of the deaths:

- 1. Regulation and enforcement of fire safety in care homes at the time of the fire at Rosepark was fragmented.**
- 2. The Care Commission’s knowledge of the role of Fire and Rescue Services in relation to fire precautions in care homes, and vice versa, was characterised by a lack of clarity.**
- 3. The product of this lack of clarity was a situation in which the absence of, or deficiencies in the premises risk assessment at Rosepark, and the arrangements for dealing with a fire alarm sounding at night, were unlikely to have been identified at the time when the fire occurred.**

The understanding of the Care Commission and Strathclyde Fire and Rescue

- 1. The evidence relating to the aftermath of the fire revealed uncertainties about the roles of the Care Commission and SFRS in matters of fire safety.**

2. It was the understanding of Jacqueline Roberts that there had been contacts between the Care Commission and Fire and Rescue Authorities, in particular the Chief Area Fire Officers' Association, before the fire⁴⁴⁵².

3. Mrs Roberts' understanding was that the Fire Service took on responsibility for undertaking regular fire safety inspections in care home services *after* the end of January 2004. She was advised by representatives of the Fire Service after the fire that this did not happen consistently across all fire services before January 2004. Mrs Roberts understood that Fire and Rescue were inspecting care homes once per year⁴⁴⁵³. Only after the Care Commission was up and running did it gradually become apparent that practices varied⁴⁴⁵⁴

4. Ronald Hill's understanding of the position of the Fire Brigade, prior to the fire, was that some kind of inspection regime existed in respect of care homes but he was unaware of its regularity or its legislative basis. Ultimately Mr Hill appeared to accept that, after registration, inspection of care homes by the Fire Service was likely to have arisen as a result of a request⁴⁴⁵⁵. His understanding, though, was that the primary agency responsible for fire safety was the Fire Brigade⁴⁴⁵⁶. The appointment of Alan Sheach as a fire safety advisor after the fire represented a recognition that it would be helpful to have a closer dialogue between the Care Commission and the Fire Service⁴⁴⁵⁷.

5. Annabel Fowles, the Head of Legal Services at the Care Commission, stated that it was her view that very little had changed from the system of regulation by the Health Boards when the Care Commission came into being. In advising the Care Commission she took the view that fire safety involved no more than checking that maintenance records were up to date and that fire drills were being carried out and documented. In terms of systematic inspection of fire safety standards, that was not

⁴⁴⁵² Jacqueline Roberts, 1 June 2010, pm, pp10-11;

⁴⁴⁵³ See evidence of Alan Sheach, referred to in chapter 46(1)

⁴⁴⁵⁴ Jacqueline Roberts, 1 June 2010, pm, pp19-23;

⁴⁴⁵⁵ Ronald Hill, 25 June 2010, pm, pp6-8;

⁴⁴⁵⁶ Ronald Hill, 25 June 2010, am, pp59-60;

⁴⁴⁵⁷ Ronald Hill, 25 June 2010, am, pp62-63;

something that the Care Commission had the staff or training to do⁴⁴⁵⁸. Conversely, her understanding was that the Fire Services would be inspecting nursing home accommodation in conjunction with local authorities or health boards. The legal basis for this understanding does not appear to have been a matter that Mrs Fowles investigated⁴⁴⁵⁹.

6. As discussed in chapter 27, however, the reference, in section four of the Care Commission pre-inspection return document, to “the last Fire Brigade inspection” was a reference to an *updated* goodwill report by the Fire Brigade⁴⁴⁶⁰. Miss McHaffie was unsure what the Fire Brigade’s role in relation to care homes was⁴⁴⁶¹, while Mrs Paterson did not think that the Fire Service had any ongoing role after registration⁴⁴⁶².

7. As far as SFRS were concerned the position in the evidence was this. Jeff Ord, the Fire Master between 1999 and 2004, was unsure whether the Care Commission understood the basis upon which SFRS approached enforcement of the Fire Precautions (Workplace) Regulations 1997⁴⁴⁶³.

8. However, it was his understanding that Care Commission inspectors were examining matters of fire safety in care homes. He thought that they had a responsibility for fire safety in care homes and for the registration of premises, which itself included compliance with safety, including fire safety⁴⁴⁶⁴. That understanding was derived from discussions with senior officers within SFRS⁴⁴⁶⁵. It was also Mr Ord’s expectation that the inspectors would have had a substantial knowledge of fire safety issues in the form of a vocational qualification in generic risk assessment (which would include fire) or at least internal qualifications and evidence of training⁴⁴⁶⁶.

⁴⁴⁵⁸ Annabel Fowles, 10 June, 2010, pm, pp26-27;

⁴⁴⁵⁹ Annabel Fowles, 10 June 2010, pm, pp28-29;

⁴⁴⁶⁰ Elizabeth Norton, 26 April 2010, am, pp64-65;

⁴⁴⁶¹ Morag McHaffie, 8 March 2010, am, pp37-38;

⁴⁴⁶² Marie Paterson, 13 May 2010, am, p63;

⁴⁴⁶³ Jeff Ord, 2 July 2010, am, pp46-47;

⁴⁴⁶⁴ Jeff Ord, 1 July 2010, pm, pp11-12;

⁴⁴⁶⁵ Jeff Ord, 1 July 2010, pm, pp13-14;

⁴⁴⁶⁶ Jeff Ord, 2 July 2010, am, pp49-51;

9. Hugh Adie's understanding was that the Care Commission had the same role in relation to the inspection of matters of fire safety as had the Health Boards⁴⁴⁶⁷. At the time it came into being Mr Adie (then Deputy to the Assistant Fire Master, Community Safety⁴⁴⁶⁸) had no information about the nature of the registration process and where responsibilities in relation to fire safety were to fall⁴⁴⁶⁹. His understanding that the Care Commission had the same role as the Health Boards was one which was derived from Care Commission officers after the Care Commission had started⁴⁴⁷⁰.

10. In reality there was, according to Mr Adie, little understanding within SFRS on 1 April 2002 of the functions of the Care Commission and its responsibilities⁴⁴⁷¹. There had been no communication from the Scottish Government to the effect that care homes were no longer going to be regulated by the Health Boards⁴⁴⁷². It took a considerable period of time, perhaps 12-18 months, for formal procedures to be put in place that would allow the registration process to carry on as before⁴⁴⁷³.

11. Precisely why it took until September 2005 before a Memorandum of Understanding between the Care Commission and SFRS was not resolved in the evidence. Mrs Roberts referred to the short lead in time before the Care Commission started up and how a longer time might have allowed for the preparation of memoranda of association⁴⁴⁷⁴. John Russell recalled an initial meeting in Paisley about 6-9 months after the start of the Care Commission⁴⁴⁷⁵. Jeff Ord spoke in the most general terms about an absence of concern expressed by his staff about the Care Commission's inspection regime and some liaison at an operational level⁴⁴⁷⁶.

⁴⁴⁶⁷ Hugh Adie, 30 June 2010, am, p54;

⁴⁴⁶⁸ Hugh Adie, 30 June 2010, am, pp1-2;

⁴⁴⁶⁹ Hugh Adie, 30 June 2010, am, pp53-54;

⁴⁴⁷⁰ Hugh Adie, 30 June 2010, am, p54;

⁴⁴⁷¹ Hugh Adie, 30 June 2010, pm, pp92-93;

⁴⁴⁷² Hugh Adie, 30 June 2010, pm, p93;

⁴⁴⁷³ Hugh Adie, 30 June 2010, pm, pp94-95;

⁴⁴⁷⁴ Jacqueline Roberts, 2 June 2010, am, pp42-43;

⁴⁴⁷⁵ John Russell, 9 August 2010, pm, pp70-71;

⁴⁴⁷⁶ Jeff Ord, 1 July 2010, pm, pp20-22;

12. In reality there were no arrangements regulating the relationship between the Care Commission and SFRS⁴⁴⁷⁷ before the fire, and it was the fire that gave impetus to that process⁴⁴⁷⁸

13. It is reasonable to conclude from the evidence that at the time of commencement of the Care Commission in April 2002 neither SFRS nor the Care Commission had a clear understanding of the role of the other relative to the inspection of matters of fire safety.

Note to Chapter 46(3)

There are no submissions on behalf of the Balmer Partnership or Strathclyde Fire and Rescue. Their position has already been made clear. On behalf of the Care Commission it is again emphasised that in terms of the 2002 Regulations fire safety was addressed in Regulation 19(3) and was only concerned with the keeping of records. Inspectors were not trained in the assessment of fire safety and did not carry out detailed scrutiny of fire safety policies and procedures in care homes. Further the Care Commission accept that Rosepark did not operate appropriate policies and procedures and staff were not properly trained. They point out that, had the Care Commission been given statutory powers analogous to those of the Health Board under the 1990 Regulations, it is likely that the inspection regime would have been given a greater priority to fire safety and that a fire safety officer would have been appointed earlier than 2005. It is conceded by the Care Commission that it was not until the fire at Rosepark that they became aware that attendance by the Fire Service at care homes was not specifically in respect of fire safety. Against that statutory background it is proper that there is no finding that any defect in the system of working on the part of the Care Commission contributed to the deaths. The Care Commission were carrying out their statutory obligations.

⁴⁴⁷⁷ Elizabeth Norton, 26 April 2010, am, pp71-72;

⁴⁴⁷⁸ Jacqueline Roberts, 1 June 2010, pm, pp13-14;

CHAPTER 46(4): CERTIFICATE OF COMPLETION: THE POSITION OF THE ARCHITECT AND BUILDING CONTROL AUTHORITY

This matter is discussed at Chapter 46(3) of the Crown submissions and the submissions in reply of interested parties.

I have found at OF4:

It is a fact relevant to the circumstances of these deaths that a certificate of completion was issued in circumstances where there had been a serious failure to comply with Building Regulations (in respect of the omission of fire dampers).

I recommend that the Scottish Government give careful attention to the following proposals:

- (i) Whether, when an architect signs an application for a completion certificate on behalf of a client, he should declare:
 - (a) the basis on which he was employed in respect of the project and**
 - (b) the steps he has taken to ascertain the building has been completed in accordance with the Building Regulations and the terms of the warrant.****
- (ii) Whether there should be a more prescriptive regime of the steps required to be taken by Building control before pronouncing themselves satisfied that a building has been completed in accordance with the conditions on which the relevant warrant was granted.**

1. There was a serious failure to comply with Building Regulations, by reason of the omission of fire dampers. Nevertheless, an application was made for a completion certificate by Mr Dickie, and a completion certificate was issued by the building authority.

The Architect

2. The architect who signed the application for the completion certificate did so when he had been engaged on a plans only basis. He had not been involved in periodic inspection.

3. On 17 January 1992 John Murray signed an application to Motherwell District Council for a completion certificate on behalf of the architect, William Dickie. This was done in Mr Dickie's absence and on his authority. Mr Dickie's practice was to make such an application whether he was acting on a plans only basis or on a full service basis.

4. As I have set out at paragraph 51 of Chapter 6 hereof the application was in the following terms:

We Mr and Mrs T Balmer, 1 Caldwell Crescent Motherwell, apply under section 9 of the Building (Scotland) Act 1959 as amended ... for a certificate of completion in respect of the works of erection ... of the building at New Edinburgh Road, Viewpark, Uddingston, which works were completed on 17 January 1992 and carried out in accordance with the warrant no MB/469/90 (and amendment MS/439/91 granted 2.1.92) in conformity with the relative plans and specifications and in accordance with the Building Standards (Scotland) Regulations 1982 as amended ...”

5. John Murray inhibited William Dickie's name as he had authority to do, and against the words “particulars of agent” set out Mr Dickie's name and professional address and his profession, “architect”. William Dickie, as I have said, gave evidence that his practice was to make such an application in these terms as an “agent” and “architect” whether he was acting on a plans only or on a full service basis. There was no evidence before the Inquiry, apart from that given by John Spencely, as to whether this was normal practice in his profession. John Spencely's evidence was that William Dickie did not have a proper basis upon which he could assert to the

Building Control Authority that the building had in fact been completed in accordance with the Building Regulations and the terms of the warrant⁴⁴⁷⁹.

6. There was no other evidence on this issue before the Inquiry which I consider to have been unresolved.

7. The evidence of Thomas Sorbie was that, although it might add weight to an application that it had been signed by an architect, this circumstance should not make any difference to the approach taken by the Building Control Officer in fulfilling his own responsibility of assessing an application for a completion certificate⁴⁴⁸⁰. This was corroborated to some extent by John Spencely's experience⁴⁴⁸¹.

8. Hugh Gibb, the building control inspector involved in this case, on the other hand, did place weight during his evidence initially on the fact that the application had been presented by an architect. He said that if an application had been made by Mr Balmer himself he would wonder "that the architect wasn't involved in the project at all"⁴⁴⁸². He went on to say that if the architect informed you that the works were being completely supervised by the owner of the building himself, "you may decide ... and I can only say may ... you may decide that you would try and do more inspections if you could"⁴⁴⁸³. However he went on to say, when asked whether it would have affected him if he had understood that the architect had provided a plans only service: "I don't really think so. ... I think inspection is affected by what problems and what issues you are finding on site, more than directly who in some respects is supervising"⁴⁴⁸⁴.

9. In these circumstances, the Crown properly in my view, do not seek a determination in respect of the role of the architect.

⁴⁴⁷⁹ John Spencely, 23 July 2010, am, p. 47-54.

⁴⁴⁸⁰ Thomas Sorbie, 7 June 2010, am, pp. 119-120, 134-146, pm, pp. 31-34.

⁴⁴⁸¹ John Spencely, 23 July 2010, am, pp. 89-90.

⁴⁴⁸² Hugh Gibb, 3 February 2010, pm, p. 58.

⁴⁴⁸³ Hugh Gibb, 3 February 2010, pm, p. 60.

⁴⁴⁸⁴ Hugh Gibb, 3 February 2010, pm, p.64.

10. While it has not been established in this case that the Building control inspector relied on the fact that the application was signed by an architect who, on the face of it, was indicating that the building had been completed in accordance with the plans on which the warrant was granted and the appropriate Building Regulations, one can readily envisage a situation where another building inspector might well have adopted the position initially taken by Hugh Gibb that he did place weight on the fact that the application had been presented by an architect, and especially an architect who had obtained planning permission and a Building Warrant on behalf of the client.

11. In these circumstances it appears to me it might be prudent that, if an architect is to become involved in signing an application for a completion certificate on behalf of a client, he should make it clear the basis on which he was employed in respect of the project and the steps he has taken to ascertain the building has been completed in accordance with the Building Regulations and the terms of the warrant. I have made a recommendation that this should be given attention.

Building Control

1. In terms of the relevant legislation the local authority was enjoined to grant a completion certification if “so far as they are able to ascertain, having taken all reasonable steps on that behalf, they are satisfied that the building complies with the conditions on which the relative warrant was granted”.

2. What steps were “reasonable” was not further defined. There was no prescribed level or number of inspections which required to be made⁴⁴⁸⁵. The final inspection itself would normally be a walk-through non-disruptive inspection, with the detail of the inspection affected by such matters as the prior involvement of the inspector with the building and other such considerations⁴⁴⁸⁶. No criticism falls to be made of the number of inspections undertaken by Mr Gibb of this particular building⁴⁴⁸⁷. Nor could he be expected to inspect every location where there might be a damper, or, indeed, for every potential breach of the Building Regulations. The building control

⁴⁴⁸⁵ Thomas Sorbie, 7 June 2010, am, pp. 129-130.

⁴⁴⁸⁶ Thomas Sorbie, 7 June 2010, am, pp. 131-133.

⁴⁴⁸⁷ Thomas Sorbie.

inspector does not perform the function of a clerk of works⁴⁴⁸⁸. There is also a resource implication. Hugh Gibb stated that at the time he was dealing with 100 projects. In a year he required to consider 200 warrant applications. His office consisted of a manager, an assistant manager, five building control officers and five trainees. It was not possible to do a detailed inspection of all projects.

3. Furthermore, there is scope for professional judgment as to whether any particular inquiry is a necessary one. While Mr Sorbie would himself have regarded it as reasonable to make inquiry in relation to fire dampers, he would not be critical of a building control inspector who took a different view⁴⁴⁸⁹. Ultimately, he was not prepared to say that the building authority in this case had failed to take all reasonable steps. One required to be mindful that the Building Regulations impose requirements as regards many matters not all of which can be the subject of inspection.

4. The evidence clearly indicated that there is no definition on what amounts to “reasonable steps” which Building Control are required to take. I am conscious that in terms of the Building (Scotland) Act 2003 section 17(1) the onus is now on the owner to certify that the building has been completed in terms of the Building Regulations. In terms of section 18(2) the verifier (i.e. Building Control) must accept the certificate if, but only if, after reasonable enquiry it is satisfied as to the matters certified in the certificate. Accordingly, this still raises the question of the appropriate definition of “reasonable”. As I have said, there is scope for professional judgement. In this case Thomas Sorbie took the view that he himself would have regarded it as reasonable to make enquiry in relation to the installation of fire dampers, but he would not be critical of a Building Control Inspector who took a different view. It is not possible to check everything and resources are finite.

5. There was very limited evidence on this issue at the Inquiry, but I consider it is one which I should flag up for consideration. It may be that, after appropriate consultation, the Scottish Government would consider whether there should be a more prescriptive regime of the steps required by a Building Control department before pronouncing themselves satisfied on the matters certified in a certificate. In these

⁴⁴⁸⁸ Thomas Sorbie, 7 June 2010, pm, pp. 25-26.

⁴⁴⁸⁹ Thomas Sorbie, 7 June 2010, pm, pp. 34-43.

circumstances, it is recommended that the Scottish Government give immediate and careful attention to the following proposals:

- (iii) Whether, when an architect signs an application for a completion certificate on behalf of a client, he should declare:
 - (a) the basis on which he was employed in respect of the project and
 - (b) the steps he has taken to ascertain the building has been completed in accordance with the Building Regulations and the terms of the warrant.
- (iv) Whether there should be a more prescriptive regime of the steps required to be taken by Building control before pronouncing themselves satisfied that a building has been completed in accordance with the conditions on which the relevant warrant was granted.

Note to Chapter 46(4)

As far as the submission on behalf of North Lanarkshire Council is concerned I have accepted their submission. The evidence before the Inquiry does not allow any other conclusion than that the Building Control Authority took all reasonable steps before granting a completion certificate. I refer to the evidence of Thomas Sorbie which I have recorded above and to my recommendation to Scottish Ministers.

CHAPTER 46(5): CHECKING OF DOCUMENTATION

This issue is discussed at Chapter 46(4) of the submissions for the Crown and interested parties.

I have found at OF5:

It is a fact relevant to the circumstances of these deaths that there had been no external check for documentation vouching: (a) the testing and inspection of the electrical installation; or (b) the testing and inspection of the ventilation system.

I recommend:

- 1. That there should be such an external check by a regulator.**
- 2. There should be clarity between the potential regulators, namely the Health and Safety Executive, the Fire and Rescue Service, and the successor to the Care Commission (SCSWIS) as to who should carry out this task.**
- 3. The relevant inspectors should have instruction as to the nature of the documentation they should expect to see.**
- 4. Consideration should be given to the proposal by SF&R that the smoke and fire integrity of compartments (which would include but would not be limited to the presence and effectiveness of dampers, if to be fitted) be subject of expert certification in the same way as the electrical installation is certified.**

1. It is apparent from the evidence that, in a well-run Home, the maintenance of key features of the building which have an important bearing on fire safety will generate documentation. In particular:

- a. The testing and inspection of the electrical installation will generate documentation associated with that.
- b. The testing and inspection of the ventilation system, and fire dampers, should generate documentation.

2. The very fact that there was no such documentation indicates that no one external to Rosepark was checking (or adequately checking) for such documentation.

3. The Care Regulators had been looking at electrical maintenance contracts, but their concern was more that there should be adequate emergency cover than with the question of whether the system was being properly maintained. Mr Todd suggested that it would be desirable for the Care Regulator to check such documentation vouching the testing and inspection of the electrical installation, on the basis that this Regulator would regularly be visiting and inspecting the Home. But he recognized that the primary responsibility for enforcing the Electricity at Work Regulations lies with the HSE and, further, that fire safety is not dealt with by the Care Commission. The Care Commission is also to be replaced⁴⁴⁹⁰. Mr Todd agreed with the proposition, though, that the important thing is that this should be done by someone⁴⁴⁹¹.

4. The Crown acknowledged that this is an issue which should be addressed in the context of a suitable and sufficient risk assessment. Nevertheless – and whether or not the fire was caused in the manner identified in these submissions – the evidence in this inquiry did disclose an issue which the relevant regulators (i.e. the HSE, the Fire Authorities and the successor to the Care Commission) should consider. I recommend (a) that there should be clarity as between the potential regulators as to what each of them is doing in this regard; and (b) that relevant inspectors should have instruction at least as to the nature of the documentation which they should expect to see.

5. SF&R in their submissions raised, while supporting the above, further suggested that, in view of the reduced incidents of inspection for completion certificates, the importance of the integrity of fire and smoke compartments, the difficulty in determining whether compliance has occurred after construction is substantially complete, and the transfer of onus to the person in control (or employer) in terms of the Fire (Scotland) Act 2005, I might consider recommending that in future the smoke

⁴⁴⁹⁰ Colin Todd, 29 July 2010, am, pp. 91-100.

⁴⁴⁹¹ Colin Todd, 29 July 2010, am, p. 100.

and fire integrity of compartments (which would include but would not be limited to the presence and effectiveness of dampers, if to be fitted, be the subject of expert certification, in the same way as the electrical installation is certified.

6. I consider it is appropriate that Scottish Ministers give consideration to this proposal.

7. I have incorporated these recommendations in OF5 in my findings in Chapter 2 hereof.

Note to Chapter 46(5)

On behalf of Ministers it was submitted that inspection and testing of electrical installations are matters which have implications for inspection of premises other than care homes and which impinged upon the responsibility of the Health & Safety Executive. It was submitted that, to the extent that such an inspection is related to concerns about fire safety, entrusting it to SCSWIS (the successor to the Care Commission) would be inconsistent with legislation which has removed responsibility for fire safety from the Care Commission (as its successor SCSWIS) and placed it with the Fire and Rescue Services. It was suggested on behalf of Scottish Ministers that discussion should take place between the Health & Safety Executive and the Fire and Rescue Services. That may be correct, but my recommendation is that there should be clarity between the potential regulators. In view of the importance of the issue, it would be of assistance if this could be facilitated by Scottish Ministers.

As far as testing and inspection of the ventilation system is concerned Scottish Ministers suggest that this should be for consideration by the body charged with responsibility for fire safety inspections of care homes, namely the Fire and Rescue Services. Again, steps should be taken to ensure there is clarity.

CHAPTER 46(6): ASSURANCE AS TO THE COMPETENCE OF FIRE RISK ASSESSORS

This is discussed at Chapter 46(5) of the submissions of the Crown and interested parties.

I have found at OF6:

It is a fact relevant to the circumstances of the deaths that there was at the time of the fire no statutory requirement as regards the qualifications of persons who provide services in connection with the risk assessment of Care Homes.

1. Having regard to the fundamental importance of the process of fire risk assessment in securing fire safety, it is of the utmost importance that the process is a robust one.
2. Legislation does not prescribe that persons who hold themselves out as competent to assist duty-holders with fire risk assessments have any particular qualification or experience to do so⁴⁴⁹². This is of a piece with the thrust of legislative policy that, in many types of premises, the process can be undertaken by a lay duty-holder.
3. Care homes present two special features:
 - 3.1. They are exceptionally challenging in fire safety terms.
 - 3.2. They typically house vulnerable individuals who are entitled to a measure of protection.
4. Mr Reid held himself out as giving health and safety advice, and was prepared to undertake a risk assessment at Rosepark. With the benefit of hindsight, Mr Reid

⁴⁴⁹² Colin Todd, 27 July 2010, pm, pp. 82-83

very candidly accepted that he was not, in fact, qualified by experience or training to undertake the particularly difficult exercise of a fire risk assessment at Rosepark.

5. Mr Reid had a health and safety qualification (a NEBOSH General Certificate), was a member of a relevant association, and had undertaken some training specifically in fire risk assessment. These were not, in fact, sufficient to fit him for the particular challenges of risk assessing a home such as Rosepark⁴⁴⁹³. However, it might have been difficult for a lay duty-holder to come to a view that he was not someone who could safely be engaged to assist the duty-holder with a fire risk assessment.

6. The circumstances of this Inquiry illustrate that in the specific context of fire risk assessments of residential care homes, there may be a case for a more prescriptive approach to be taken to the question of the qualification of persons who are engaged by duty-holders to assist. This could be justified: (a) by the particular difficulties attendant on fire risk assessment of such premises; and (b) the legitimate public aim of protecting vulnerable residents.

7. An alternative approach, short of statutory regulation, would be the use of third party accreditation schemes, with appropriate support being given to the importance of using accredited assessors in non-statutory guidance to those responsible for running Care Homes and in the actions of regulators⁴⁴⁹⁴. The inquiry heard evidence that there are now registration or accreditation schemes for fire risk assessors run by four bodies (all but one of them post-dating the fire at Rosepark), and that the industry is actively engaged in developing third party certification schemes⁴⁴⁹⁵.

8. A similar point might be made about those who provide, install and maintain key protection systems such as fire alarm systems. There are already available third party certification schemes for such providers⁴⁴⁹⁶.

⁴⁴⁹³ Colin Todd, 28 July 2010, am, pp. 23-24.

⁴⁴⁹⁴ Colin Todd, 28 July 2010, pm, pp. 40-44

⁴⁴⁹⁵ Colin Todd, 27 July 2010, pm, pp. 83-86; 28 July 2010, am, pp. 1-23.

⁴⁴⁹⁶ Colin Todd, 28 July 2010, pm, pp. 24-26

9. Scottish Ministers intimated that regulation and enforcement of fire safety in care homes in Scotland had undergone substantial changes since Mr Reid carried out the risk assessment at Rosepark. Care homes are now inspected by Fire & Rescue Service inspectors. Care homes in Strathclyde are visited at least once a year by the Fire and Rescue Service and such inspection includes consideration of risk assessments. Inspectors from the eight Scottish Fire and Rescue Services receive training which covers fire risk assessment. It is suggested that under the current regime, significant shortcomings in risk assessments should be identified by audit.

10. In the sector specific guidance Practical Fire Safety for Care Homes (published 2008) there is contained explaining what a fire safety risk assessment is and describing how it should be carried out.

11. Scottish Ministers have indicated that United Kingdom Government has made it plain that they do not intend to change legislation in order to make the use of registered and accredited persons compulsory. The responsibility for the fire risk assessment remains at all times with the duty holder and cannot be delegated. However, it was said on behalf of Scottish Ministers that they recognise the benefits of the alternative approach of highlighting the benefits of using third party accreditation schemes.

12. Scottish Ministers in their submissions indicated a project sponsored by the Department of Communities and Local Government for the United Kingdom Government is developing a standard for competent fire risk assessors,. It is anticipated that third party certification will be used to ensure that fire assessors meet this standard. When that project is completed, the Scottish Government will consider what equivalent scheme will be appropriate for Scotland. Revisions will be made to the sector specific, Practical Fire Safety for Care Homes, to make appropriate reference to the benefits of selecting fire risk assessors who have the appropriate accreditation.

13. As an interim measure, the Scottish Government has written guidance for inclusion on the Fire Law website. This will assist duty holders with selection of

external fire risk assessors. Existing assurance schemes described to the Inquiry by Colin Todd will be signposted in this guidance.

14. Scottish Ministers also refer to third party certification schemes relating to providers of key protection schemes such as fire alarms. As was indicated to the court in the course of the Inquiry Scottish Ministers are prepared to consider amendment of the sector specific guidance to make users aware of the existence and benefits of third party certification schemes. Scottish Ministers have inserted guidance on the Fire Law website on the benefit of third party certification for products and services. Similar guidance will be incorporated into revised versions of the Scottish Government sector specific fire safety guide. “Practice Fire Safety Guidance for Care Homes” is scheduled for provision when my Determination is issued.

15. In my opinion this is an appropriate response.

CHAPTER 46(7): DEVELOPMENTS SINCE THE ROSE PARK FIRE

At OF7 in chapter 2 I have set out the considerable developments which have taken place following the fire. I have dealt with them under the following heads:

OF7.1 At the instigation of the Scottish Ministers, a process of advisory visits by Fire Services to Care Homes throughout Scotland was instigated following the fire⁴⁴⁹⁷.

OF7.2 Memoranda of Understanding were, in 2005, entered into between the Care Commission and the eight Fire and Rescue Authorities in Scotland⁴⁴⁹⁸.

OF7.3 Strathclyde Fire and Rescue issued Operational Technical Note A124, in response to certain recommendations which had been made by Sir Graham Meldrum following the fire at Rosepark Care Home⁴⁴⁹⁹.

OF7.4 The legislation in relation to fire safety which had been in place at the time of the fire was replaced by a comprehensive new legislative framework, in the Fire (Scotland) Act 2005⁴⁵⁰⁰.

7.4.1 a summary of the legislative position prior to the enactment of Part III of the Fire (Scotland) Act 2005

7.4.4 the legislative history of the Fire (Scotland) Act 2005

7.4.5 the relevant sections of Part III of the Fire (Scotland) Act 2005, which in particular specify that the “enforcing authority” in terms of the Act is a Fire and Rescue Authority, (or a joint Fire and Rescue Board where a scheme for combining two or more Fire and Rescue Authorities has been implemented in terms of section 2(1) of the 2005 Act). Their duties were specified in the Act, including in particular the power at any reasonable time to enter relevant premises and inspect the whole part of the relevant premises and anything in them.

My conclusions and recommendation OF7.3.23

7.4.4 the relevant sections of The Fire Safety (Scotland) Regulations 2006

⁴⁴⁹⁷ Chapter 46(5)(a) below.

⁴⁴⁹⁸ Chapter 46(6)(a) below.

⁴⁴⁹⁹ Chapter 46(6)(b) below.

⁴⁵⁰⁰ Chapter 46(6)(c) below.

7.4.11 Strategic Enforcement Guidance for Fire and Rescue Authorities issued by Scottish Ministers in August 2006 – this was not sector specific

7.4.12 Fire Safety Guidance Booklet and preparation of section specific guidance

7.4.13 Practical Fire Safety Guidance for Care Homes – latest version published by Scottish Government in February 2008

Conclusion OF 7.4.7.41

7.4.14 Part III of the 2005 Act and the Care Commission. Care Commission no longer responsible for considering fire safety measures. That responsibility lies with the Fire and Rescue Services

7.4.15 Enforcement of the 2005 Act and the 2006 Regulations by SFRS

7.4.16 Current approach of Care Commission to the Fire (Scotland) Act 2005

Conclusions and recommendation 7.4.10.64

It is not necessary again to set out these developments which can be noted at OF7 in Chapter 2.

Reference is made to Chapter 46(6)(C) of the submissions for the Crown and interested parties.

CHAPTER 46(8): DEVELOPMENTS IN THE BUILDING REGULATIONS SINCE THE ROSEPARK FIRE

At OF8 of Chapter 2 I have set out the developments which have taken place in the Building Regulations since the Rosepark fire. It is unnecessary to repeat them here. This follows Chapter 46(6)(D) of the Crown submissions.

CHAPTER 46(9): DEVELOPMENTS WHICH HAVE TAKEN PLACE AT ROSEPARK CARE HOME SINCE THE FIRE

At OF9 of Chapter 2 I have set out the developments which have taken place at Rosepark Care Home since the fire. It is unnecessary to repeat them here. This follows Chapter 46(6)(E) of the Crown submissions.

CHAPTER 46(10): FUTURE DEVELOPMENTS IN THE REGULATORY FIELD

At OF10 of Chapter 2 I have set out certain future developments in the regulatory field and made a recommendation thereon. It is unnecessary to repeat that material here. It follows Chapter 46(6)(C) paragraphs 65 to 71 of the Crown submissions.

CHAPTER 46(11): THE RECOMMENDATIONS OF COLIN TODD

These are discussed at Chapter 46(6)(F) of the Crown submissions and the response on behalf of Scottish Ministers. These are to be found in the Appendices. I refer to them at OF11 of my findings. I would comment as follows:

1. Colin Todd prepared a document, Production 1779, setting out a number of suggestions and recommendations arising from his understanding of the circumstances of this inquiry. Colin Todd has identified, in Production 1779, matters which properly arise from the subject-matter of this inquiry, and which it is appropriate that those charged with policy in relation to fire safety should consider.
2. In the course of Colin Todd's evidence, counsel for Scottish Ministers indicated that Scottish Ministers accepted a number of Colin Todd's recommendations, and in respect of others expressed their willingness to consider further the issues raised by Colin Todd.
3. I have made findings under the relevant heads of section 6(1) of the 1976 Act on a number of issues which are addressed in Colin Todd's recommendations. I would hope that these findings will bring these matters firmly to the attention of care home operators and of relevant regulators and policy makers.

I deal with Colin Todd's recommendations in turn:

Section 4 – regulation of the inspection and testing of fixed electrical installations

4. Colin Todd made recommendations in respect of the regulation of the inspection and testing of fixed electrical installations. I have dealt with this matter at RF2 (Chapter 44(2)) and DS1 (Chapter 45(1)). I understand from the submissions on behalf of Scottish Ministers that Colin Todd's recommendation is accepted.

Section 5 – use of addressable alarm systems

5. At RP4.1 I have found that it would have been a reasonable precaution to have provided clear information at the fire alarm panel (and, in particular, a diagrammatic representation) enabling staff to identify quickly and accurately the location of the

detector which has been activated. This does not go so far as to recommend the use of addressable alarm systems. I had in mind a diagrammatic representation beside the panel of where exactly in the home the various zones were to be found. In an addressable system, when a fire occurs, the exact location of the fire detector that operated is given in the form of a text display on the control and indicating equipment. Except in small premises, most modern fire alarm systems that incorporate a significant number of automatic fire detectors are of the “addressable”, rather than the “conventional” type. It is to be noted that such a system has been installed by the Balmer Partnership at Rosepark. Colin Todd recommends that fire alarm system in all new care homes above a specified size (e.g. with 10 or more residents) should be addressable. He suggests Scottish Building Standards should specify that recommendation in the relevant technical handbook which supports the Building (Scotland) Regulations and the British Standards Institution should amend BS5839-1 to incorporate the above recommendation. It would then automatically apply to replacement fire alarm systems in existing care homes. It is suggested that Scottish Ministers should amend sector specific guidance and compliance with the Fire (Scotland) Act in care homes to reflect this recommendation in respect of replacement fire alarm systems in existing premises.

It was clear from evidence that the problem with this proposal is in respect of cost. The benefits of such a system were apparent from the evidence. In the course of the cross-examination of Colin Todd, Scottish Ministers, through their counsel, indicated a willingness to consider revising care home guidance along the lines suggested by Colin Todd, subject to consulting on the matter of cost, benefit and expense.

Section 6 – fire alarm zone plans

6. My finding at RP4.1 (Chapter 44(4)(A)) deals with this issue. Scottish Ministers have not commented thereon, but no doubt this finding of a reasonable precaution will be noted by relevant policy makers, including the authors of the British Standard.

Section 7 – staffing numbers

7. Colin Todd recommended that the Care Home Guidance issued by the Scottish Ministers should provide a definitive benchmark on the minimum number of staff required for the purpose of evacuation⁴⁵⁰¹. It is plain from the circumstances of this case that it is essential that care home owners, through the process of risk assessment, address the practicalities of evacuation – including the number of staff required in the circumstances of the particular home. This is already emphasized in the Care Homes Guidance⁴⁵⁰² but without giving a specific benchmark figure. Colin Todd accepted in cross-examination that various factors (notably the physical characteristics of the building, dependency of residents and whether or not there was a sprinkler system) would affect the number of staff required. I accept, as did the Crown and Colin Todd, that there may be scope for reasonable differences of view⁴⁵⁰³ and that, ultimately, the issue of how the guidance should be framed in this regard is one of policy for Scottish Ministers. The conclusion maybe reached that the number of staff needed to evacuate a home will be unique to each individual care home and that the number should be determined by risk assessment. It is to be hoped that the findings of this inquiry will highlight to those involved in the management and regulation of care homes the importance of considering seriously how an evacuation would be carried out, and, in that regard, address the numbers of staff necessary to achieve that.

Section 8 – retro-fitting of sprinkler systems

8. The BRE work demonstrated the striking value of a sprinkler system in relation to fire safety. The fitting of sprinkler systems comes, however, at a cost. It is note worthy that, even in relation to new homes, England and Wales has not adopted the approach taken in Scotland following the Rosepark fire of requiring that new care homes incorporate an automatic suppression system⁴⁵⁰⁴. Colin Todd addressed the question of retro-fitting sprinkler systems to existing homes. He suggested that guidance could recommend that consideration be given to this in a case where the time for evacuation of a sub-compartment may be long, unless there is a

⁴⁵⁰¹ Colin Todd, 28 July 2010, am, pp. 143-

⁴⁵⁰² Pro 1943, paras. 75-84.

⁴⁵⁰³ Colin Todd, 29 July 2010, am, pp. 110-114.

⁴⁵⁰⁴ Colin Todd, 29 July 2010, am, p. 124.

commensurate increase in the number of staff on duty at night. It was pointed out of behalf of Scottish Ministers that paragraph 219 of the Care Home Guidance provides:

“An automatic life safety fire suppression system can be very effective in controlling fire. It may limit the growth and extend the time taken for untenable conditions to develop outside the room involved in fire giving more time to evacuate residents ...”

Counsel for Scottish Ministers indicated to Colin Todd that Scottish Ministers supported his suggestion that the guidance should recognise the potential for partial sprinkling as a more cost effective option in certain cases. No doubt this whole matter will receive appropriate attention

Section 9 – protected corridors

9. At RP3.1.1 and 3.1.2 I have found that reasonable precautions would have been for the doors to cupboard A2 to have been locked shut or at least securely closed, and to have fitted fire resisting doors to cupboard A2. At RP3.2 I found that it would have been a reasonable precaution for all bedroom doors to have been closed in the event that the fire alarm sounded. Colin Todd recommended that care home operators and enforcing authorities should be alerted to the dangers associated with bedroom corridors in care homes constructed in accordance with previous building regulations, in which corridor walls are not fire-resisting and/or doors opening into the corridor are not fire resisting and self-closing (or, in the case of cupboard doors, are not fire-resisting and locked shut). He also suggested that the relevant Technical Handbook be amended unequivocally to specify this standard. I was informed by counsel for the Scottish Ministers that as far as Colin Todd’s second recommendation is concerned, an amendment to the Non-domestic Technical Handbook (section 2: Fire. Annex 2.A) had already been made as part of the Building (Scotland) (Amendment) Regulations 2010 in force in October 2010⁴⁵⁰⁵.

Section 10 – self-closing bedroom doors

10. Colin Todd recommended that care home operators and enforcing authorities should be alerted to identify circumstances in which bedroom doors are likely to be held open by any means other than an acceptable hold-open device that will release

⁴⁵⁰⁵ Colin Todd, 29 July 2010, am, pp. 124-127.

the door automatically on operation of the fire alarm system. He suggested that the Care Home Guidance be amended to include, in addition to the existing references to hold-open devices, a reference to radio-linked hold-open devices and that acoustically-linked hold-open devices should not be used to hold open doors to staircases. I have made findings in respect of bedroom doors and the use of hold-open devices at RP3.2. So far as Colin Todd's specific recommendations about radio-linked and acoustically-linked devices are concerned, counsel for Scottish Ministers indicated that they supported these recommendations and that a change to the Building Standards in that regard was in hand⁴⁵⁰⁶.

Section 11 – remote transmission of fire alarm signals

11. Colin Todd recommended that care home operators and enforcing authorities be alerted to the need for early summoning of the fire and rescue service when the fire alarm system operates in a care home, particularly at night. The recommendation for automatic transmission of fire alarm signals should be reinforced. The British Standard should be amended to emphasise the likely need for automatic transmission of fire alarm signals in residential care homes. In evidence he expressed the view that it would be going too far to make this a prescriptive rule, since it might not be appropriate or necessary for some types of care homes⁴⁵⁰⁷. At RP5.1 I have found that it would have been a reasonable precaution for there to have been an immediate call to the Fire Brigade when the fire alarm sounded and, to that end: 5.1.1 an emergency procedure which provided for immediate call to the Fire Brigade and 5.1.2 automatic transmission of a signal to the Fire Brigade in the event that the fire alarm was activated. Colin Todd's suggested that the British Standard Institution should amend BS5839-1 to further emphasise the likely need for automatic transmission of the fire alarm signals to an alarm receiving centre in the case of all residential homes. Scottish Ministers have not commented on this proposal, but no doubt it will have their attention.

⁴⁵⁰⁶ Colin Todd, 29 July 2010, am, pp. 128-129.

⁴⁵⁰⁷ Colin Todd, 28 July 2010, pm, pp. 14-18.

Section 12 – use of staff alarm arrangements

12. Colin Todd recommended that Scottish Ministers should amend the guidance to make clear that staff alarm arrangements – whereby there is a delay in summoning the fire service when the fire alarm sounds at night – should not be adopted in residential care homes at night (except in very unusual circumstances), and that consideration be given to whether such arrangements are acceptable during the day. He recommended that any new Scottish Government guidance be forwarded to the BSI. Scottish Ministers' counsel indicated to the inquiry that Scottish Ministers accepted these recommendations⁴⁵⁰⁸. The dangers of delaying a call to the fire service in the event of a fire alarm sounding in a care home at night are plain from the circumstances of this case. In their written submissions Scottish Ministers indicated they would strengthen the advice in the Care Home Guidance regarding the fire alarm sounding at night. They also indicated that, as recommended by Colin Todd, they would consider whether the use of staff alarm arrangements in residential care homes during the day are acceptable.

Section 13 – third party certification arrangements

13. I have dealt with this in detail at OF6 and Chapter 46(6). Colin Todd recommended that Scottish Ministers should consider amendment of the relevant sector specific guidance on compliance with the Fire (Scotland) Act, particularly relating to care homes, at least, to make users of the guidance aware of the existence, and benefits, of third party certification schemes. He further recommends that Scottish Building Standards should consider the provision of equivalent advice in guidance that supports the Building (Scotland) Regulations. Counsel for Scottish Ministers indicated that they were prepared to consider amendment to the guidance along the lines stated by Colin Todd.

Section 14 – staff training

14. Colin Todd recommended that guidance on staff training in the relevant Scottish Government section specific guide should be enhanced to specify more fully the minimum frequency for staff training, the minimum duration of each training session and a more detailed syllabus for training. Consideration should be given to the

⁴⁵⁰⁸ Colin Todd, 29 July 2010, am, pp. 129-130.

development of a model fire safety training package for residential care staff. He further recommended that consideration should be given to the development of a model fire safety training package for residential care staff. Scottish Ministers point out at paragraph 88 of Care Home Guidance is in the following terms:

“The action of staff are crucial to the safety of residents in care homes. It is essential that staff know what they have to do to safeguard themselves and others on the premises and to have an awareness of the importance of their actions. This includes risk reduction, maintenance of fire safety measures and action if there is a fire. Staff training and awareness of fire safety is of paramount importance in care homes.”

Scottish Ministers indicated through their counsel that they do not support this recommendation. The principal underlying the current fire safety regime is one of risk assessment. The current thinking is that adequate and appropriate training is vital, and as such, should be uniquely targeted. Specifying minimum frequency and duration of training runs counter to that philosophy.

I am certain that my findings in this Inquiry will reinforce in the minds of both care home operators and regulators the need for all care homes to examine closely the frequency, duration and content of their training and drilling arrangements, to put in place appropriate arrangements in that regard, and to monitor and audit their own compliance. The fire enforcing authority, namely SF&R will no doubt be very alive to auditing, training and drilling arrangements during their annual inspection visits to care homes.

Section 15 – routine inspections

15. Colin Todd recommended that routine inspections should be carried out by management in residential care homes above a specified size (e.g. in terms of the numbers of residents). A competent person should be appointed and trained to carry out routine (e.g. weekly) inspections of fire precautions, with inspections recorded in a log book for examination by enforcing authorities. He also recommends that Scottish Ministers should consider the use of powers under section 58(2) of the Fire (Scotland) Act to make by regulations e.g. amendment of the Fire Safety (Scotland) Regulations 2006, requirements for keeping records of, *inter alia*, routine inspections.

It was pointed out on behalf of Scottish Ministers that Regulation 10 of the Fire Safety (Scotland) Regulations 2006 imposes a legal obligation on a duty holder to control, monitor and review fire safety measures and to keep records. Regulation 16 imposes a legal obligation on duty holders to maintain premises and fire safety measures. Further, the Care Home Guidance contains in paragraphs 103-111 detailed guidance on frequency of checks and maintenance and keeping of records. This would appear to be adequately covered.

Section 16 – plans for use by the fire and rescue services

16. Colin Todd recommended that in residential care homes above a specified size (e.g. with 20 or more residents) plans of the premises should be kept available for use of the Fire and Rescue Service unless the fire alarm system zone plan is adequate to assist the Fire and Rescue Service. It is suggested that Scottish Ministers should amend the sector specific guidance to incorporate guidance on this matter.

On behalf of Scottish Ministers it is stated that, while it may indeed be helpful for the Fire and Rescue Services to have access to plans, it is not considered that placing the onus on care homes is the best way of going about this. The Fire and Rescue Services have a duty under section 9(2)(d) of the Fire (Scotland) Act 2005 to obtain information. It was submitted there are likely to be issues around accuracy, suitability and interpretation of plans provided by duty holders without any control on quality. The view of Scottish Ministers is that it would be preferable for the Fire and Rescue Services to make or obtain the sort of plan they would need. If it were thought desirable for a backup plan to be held in the premises, it might be that a copy of the plan should be provided by the Fire and Rescue Service to be held at the care home. This matter should be given consideration.

Section 17 – the principle of care

17. It was suggested by Colin Todd that it would be of benefit if the Inquiry, “somehow”, could result in the dissemination of the message that the care of residents in a care home, in the holistic sense, includes protection from fire. Scottish Ministers point to paragraph 2 in the introduction to the Care Home Guidance which is in the following terms:

“Fatalities have occurred in fires in premises providing residential care and this clearly demonstrates the serious risk fire poses to the occupants of these

premises and the potential tragic consequences which may occur. This Guide will assist owners, managers, care provides and staff to achieve a fire safe environment in their premises and will also assist in achieving compliance with fire safety law. Reducing the risk from fire is one of the most important and fundamental duties in a care home.”

This passage strongly emphasises Colin Todd’s point that fire safety should be regarded as an important and fundamental aspect of care. I think the matter has been fully covered.

Section 18 – call challenging

18. Colin Todd recommended that in the case of an emergency call from a residential care home at night, Fire and Rescue Services should not adopt the practice of call challenging. He made clear that he did not understand that this practice was adopted by any Scottish Fire and Rescue Service, although some fire services in England and Wales had done so⁴⁵⁰⁹. My findings demonstrate the need for the Fire Service to be called immediately and the need for a speedy and sufficient response. I consider it should be plain from the circumstances of this Inquiry that a practice which involved delay in responding to an fire alarm in a care home at night would be a dangerous one.

Section 19 – familiarization visits

19. Colin Todd recommended that consideration be given to encouraging Fire and Rescue Services to carry out familiarization visits to care homes above a certain size, and that the Care Homes Guidance encourage owners to be pro-active in inviting Fire and Rescue Service crews for familiarization visits. It is suggested that Scottish Government Guide on compliance with the Fire (Scotland) Act in care homes should be amended to recommend to owners of care homes that they be pro-active in inviting Fire and Rescue Service crews for familiarisation visits.

On behalf of Scottish Ministers it is pointed out that section 9(2)(d) of the 2005 Act places a duty on Fire and Rescue Authorities to obtain information required or likely to be required for extinguishing fires and protecting life and property. Section 27 gives Fire and Rescue Services the power to enter premises at any reasonable time for

⁴⁵⁰⁹ Colin Todd, 28 July 2010, pm, p. 37.

the purpose of obtaining information needed for carrying out their functions under sections 9, 10 and 11. Regulation 12(3)(c) of the 2006 Regulations places care home owners under a duty to arrange any necessary contacts with external emergency services. It is the view of Scottish Ministers that this matter is adequately covered. Evidence was given on behalf of SF&R that care homes received a familiarisation visit from each watch annually (i.e. five familiarisation visits). I respectfully agree with Scottish Ministers that this issue would appear already to be appropriately covered.

Section 20 – competence of risk assessors

20. Colin Todd made a number of recommendations in relation to the competence of risk assessors. I have already dealt with this issue in full at Chapter 46(6). Scottish Ministers, through counsel, intimated their intention to consider making appropriate reference to the benefits of third party certification schemes in their guidance. As an interim measure Scottish Ministers has written guidance for inclusion on the Fire Law website. This would assist duty holders with a selection of external risk assessors. Existing assurance schemes described to the Inquiry by Colin Todd would be signposted in this guidance. As far as the documents published on the Fire Law website was concerned, counsel for Scottish Ministers invited Colin Todd to address any comments to the relevant officials of Scottish Ministers, who undertook to consider any comments from him.

The Scottish Ministers, in my view reasonably do not support the suggestion of amending the sector specific guidance to provide a basic framework for a fire risk assessment. They consider that suitable guidance already exists. The Care Home Guidance already contains a full chapter on fire safety risk assessment including a lengthy section under the heading “how is the fire safety risk assessment carried out?”.

As far as review of risk assessment is concerned it was properly pointed out that care homes are inspected every 12 months by SF&R inspectors.

Section 21 – documentation of information on fire strategy

21. Colin Todd invited consideration of an amendment to the Building (Scotland) Regulations 2004 to require information to be provided on fire safety measures to a duty holder on completion of a building project. Counsel for Scottish Ministers

indicated that this was under active consideration. The submissions for Scottish Ministers indicate that the development of proposals are at an early stage, and will be the subject of a consultation exercise, probably in late 2011. They point out that the documentation of information on fire strategy will likely be made under the Building (Procedure) (Scotland) Regulations 2004 as opposed to the Building Regulations. The responsibility for providing the information is likely to be the owner (who may or may not be the duty holder) and, if approved by Scottish Ministers, this will be in force as soon as the legislative process allows.

As I indicated at OF11 I do not consider that it is appropriate that I make recommendations as to what action should be taken by Scottish Ministers in respect of each and every one of these recommendations. These matters were not fully canvassed at the Inquiry from other expert witnesses. In taking any decision, I recognise that Scottish Ministers will be advised by a body of expert opinion. No doubt they will wish to carry out a consultation exercise with interested parties. I think it is sufficient that I commend Colin Todd's report and the evidence thereon to Scottish Ministers for their careful consideration.