

SHERIFFDOM OF TAYSIDE CENTRAL AND FIFE AT CUPAR,

B48/09

DETERMINATION

by

SHERIFF PETER G. L. HAMMOND

in Inquiry into the circumstances of the death of

JAMES ROBERT HUTCHINSON

Under the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976

APPEARANCES:

For the Crown: Mr. Ritchie, Area Procurator Fiscal.

For the Hutchinson Family: Mr. Lawson, Solicitor.

For Free Range Country Pork Ltd. (Vicarsford Farm): Mr. Baillie, Solicitor.

For Carntyne Transport Co. Ltd. (deceased's employers): Ms. Watt, Solicitor.

Cupar, 27 July 2009.

The Sheriff, having considered all the evidence adduced and the submissions made thereon, determines in terms of section 6 of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 as follows:

Section 6 (1) (a)

1. James Robert Hutchinson, born 25 March 1949, residing at 40 Princess Crescent, Dollar, died between 17.30 hours on 8 February 2007 and 06.40 hours on 9 February 2007 at Vicarsford Farm, Leuchars, Fife, as a result of an accident occurring there between said times.

Section 6 (1) (b)

2. The cause of his death was cranio-cerebral and cervical spine injuries, and blunt force trauma, due to a fall from a tanker truck.

Section 6 (1) (c)

3. The single reasonable precaution whereby his death might have been avoided was by the fitting of a guardrail along the offside length of the top of the tanker corresponding to the existing guardrail along the nearside.

Section 6 (1) (d)

4. There were no defects in any system of working which contributed to the death.

Section 6 (1) (e)

5. Other facts which are relevant to the circumstances of his death are set out in the following Note.

Sheriff

NOTE:

Introduction

[1] The accident which resulted in Mr. Hutchinson's death occurred while he was in the course of his employment. In terms of section 1 of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 an inquiry was therefore mandatory.

[2] The inquiry in this case was heard over two days, 11 and 12 May 2009. The Procurator Fiscal called the following witnesses:

- a. Robert Fraser, Health and Safety Executive, Glasgow.
- b. Robert McLean, Transport Manager, Carntyne.
- c. Dr. David Saddler, Forensic Pathologist, University of Dundee.
- d. William Hamilton, Health and Safety Adviser to Russell Group of Companies.

- e. Jim Jeffries, formerly Fleet Engineer, Carntyne.
- f. Steven Baldie, Vicarsford Farm.
- g. Brian Reid, Vicarsford Farm
- h. James Baldie, Farm manager, Vicarsford Farm
- i. Roderick Craik, Ambulance Technician, St. Andrews.
- j. Colin Martin, Health and Safety Executive, Glasgow.
- k. P.C. Gavin Alcorn, Fife Constabulary, St. Andrews.
- l. Lawrence Murray, Health and Safety Executive, Edinburgh.
- m. Yasmeen Ahmad, Specialist Ergonomics Inspector, Health and Safety Executive.

In addition, I was referred to a number of documentary productions including photographs, a post mortem report, toxicology report, a Health and Safety Report by Colin Martin and a Lighting Assessment by Yasmeen Ahmad. There were also produced on behalf of Carntyne various employment, training, health and safety, and risk assessment documents.

At the conclusion of the evidence, I heard oral submissions from Mr Ritchie, Ms Watt and Mr Lawson. Mr Baillie provided a note of written submissions.

Background

- [3] The deceased, James Robert Hutchinson, was aged 57 at the time of the accident which caused his death. He was employed by Carntyne Transport Co. Ltd. (“Carntyne”) as an HGV tanker driver transporting bulk liquids. He had been employed in that capacity since 1994. His duties included the driving and the loading and unloading of the tanker. He was a respected and valued employee. He was described in evidence as an ideal employee, and the kind of man whom his employers could send to any job with confidence. He was regarded as being a careful and meticulous man.

- [4] The accident occurred in the yard at Vicarsford Farm, Leuchars, Fife. This is a piggery operated by Free Range Country Pork Ltd. (“FRCP”), who were represented at the inquiry. The piggery used a liquid by-product of the whisky industry known as “pot ale” or “Lomond Gold” in making pig feed. This was transported to the piggery by means of tankers operated by Carntyne.
- [5] At the time of his death, Mr. Hutchinson was engaged in making a delivery of liquid to Vicarsford Farm by tanker. He was experienced in carrying out this operation, and had made deliveries to Vicarsford Farm on approximately 10 to 15 occasions previously. Deliveries would sometimes be made after dark. On one of those prior occasions, Steven Baldie had shown Mr Hutchinson where the light switch was. Drivers also knew where the keys to the yard were kept. If there were no Vicarsford Farm employees in attendance, tanker drivers would unlock the gate to gain access and lock it again after leaving.
- [6] Robert McLean, Carntyne’s Transport manager gave evidence about Mr. Hutchinson’s movements and contact with him on the day of his death. On Thursday 8 February 2007, he spoke to Mr. Hutchinson by telephone. Mr. Hutchinson had been scheduled to uplift a load from the Loch Lomond Distillery. However the distillery had no stock, so he decided to do another job first, and this was discussed with Mr. McLean. He went to the Tullibardine distillery and took on a load of pot ale destined for Edinburgh. He thereafter took on another load at Alexandria and set off for Vicarsford Farm at Leuchars. He was unaccompanied.
- [7] At about 3 p.m. Mr. Hutchinson telephoned Steven Baldie at Vicarsford Farm and advised him that he would arrive there to make his delivery between about 5 p.m. and 6 p.m.
- [8] Drivers use their mobile phones towards the end of every afternoon to contact Carntyne to get their instructions for the following day. At about 4.45 p.m., Stacey Raeburn of Carntyne spoke to Mr. Hutchinson by telephone.
- [9] Carntyne’s tanker lorries are fitted with GPS satellite tracking devices, which enable their movements to be recorded and traced. The GPS can also show whether the engines of company vehicles are running. If so, a green light is

shown on the display. When the GPS records were checked, they showed that Mr. Hutchinson's tanker had arrived at Vicarsford Farm at 5.30 p.m.

[10] The next morning, Friday 9 February, the GPS showed a green light indicating that the engine of Mr. Hutchinson's tanker was ticking over at that time. Carntyne initially assumed that a morning delivery was being made. Mr. Hutchinson's wife telephoned Carntyne at about 7.45 a.m. to ask if they had heard from him. She was concerned as he had not been in contact with her, and she could not get any answer from his mobile phone. Mr. McLean asked a member of staff to telephone Vicarsford Farm to inquire. Vicarsford Farm staff said that there had been an incident and they could not say anything. The police then phoned and told Mr. McLean what had happened.

The Accident and it's discovery

[11] Steven Baldie and Brian Reid are employees of FRCP, working at Vicarsford Farm. On the morning of Friday 9 February 2007 they started work at about 5.50 a.m. at the main farm, and went over to the piggery at about 6 a.m. It was dark at that time. They found the main gate into the yard open, and saw the tanker parked near a green tank in the yard, with its lights on and engine running. They found Mr. Hutchinson lying face down on the ground beside the lorry. He had not been wearing a hard hat. It was obvious that he was dead. They called an ambulance. Mr. Hutchinson was pronounced dead at 6.40 a.m.

[12] Mr. Hutchinson was found lying on the ground on the offside of the tanker. There was no guardrail fitted along the top of the tanker on the offside. The tanker was fitted with a guardrail along the top on the nearside, but this was not deployed at the time of the accident.

[13] Preparations for discharge of the tanker load had been made, but discharge had not commenced. The lighting in the yard was working but not switched on.

Medical and Toxicological Evidence

- [14] A post mortem examination of Mr. Hutchinson was carried out by Dr. David Saddler and Dr. Elizabeth Lim, forensic pathologists, Dundee University. The formal medical cause of Mr. Hutchinson's death, as appears on his death certificate, was cranio-cerebral and cervical spine injuries and blunt force trauma caused by a fall from a tanker (at work).
- [15] Dr. Saddler gave evidence of their findings, as described in the post mortem report. There were fractures of the frontal skull bone with associated bleeding over the surface of the brain (subarachnoid haemorrhage) and under the covering of the brain (subdural haemorrhage) There was also a fracture of the cervical spine (a broken neck). There were fractures of the jawbone. Both wrists were broken. There was also associated grazing and superficial lacerations on the face, forehead, bridge of the nose and chin.
- [16] These injuries were entirely in keeping with Mr. Hutchinson having fallen face down from a height. The fact that his wrists were broken suggests that he fell face forwards and put his hands out in front of him in an attempt to break his fall. Both the broken neck and the fractured skull were injuries capable of being fatal in themselves.
- [17] Death would have rapidly resulted after the fall. This conclusion is supported by the finding of the body face down in the position where he fell.
- [18] Samples of bodily fluids were analysed for the presence of alcohol with negative results. There were no suspicious circumstances. Nor was there any evidence of any natural disease or other injuries which could have caused or contributed to death.

HSE investigations

- [19] Following discovery of the accident, investigations were carried out by officers of the HSE with the assistance of management from Carntyne and FRCP. The investigations focussed on three areas: (a) The tanker, (b) lighting conditions at the locus and (c) Training, risk assessment and working practices.

The tanker

- [20] Mr McLean attended at Vicarsford Farm later on the morning of 9th February. He met with HSE investigators and examined the tanker with them. He described the tanker's offloading procedures to them. Colin Martin of HSE took photographs and measurements and produced a report incorporating these.
- [21] At the time of its discovery after the accident, the tanker was configured to be discharged, and all preparations prior to the point of commencing the discharge had been completed.
- [22] The tanker was only fitted with a guardrail along the top of the near side. This was not deployed at the time. There was no offside guardrail fitted.
- [23] The nearside guardrail was attached to the ladder at the rear of the tanker. It was designed so that when the ladder was pulled down for someone to climb up, the guardrail automatically sprang up into place. When Mr. McLean pulled down the ladder, it operated the guardrail as intended; although Mr Martin of HSE found it difficult to deploy the ladder when he attempted to do so. The guardrail mechanism is checked every six weeks by the Carntyne Fleet Engineer.
- [24] There were no defects noted on examination of the tanker.
- [25] The outlet valves and pipework for the discharge of content are situated at ground level at the rear of the tanker. The height of the platform on top of the tanker is 3.38 meters above the ground. Access to the top of the tanker is by means of the ladder at the rear described above.
- [26] The layout is shown in the photographs produced. On top of the tanker, a metal walkway and guardrail run along its length on the nearside. The guardrail is constructed of metal struts and wire. There are three man-lids on top, through which cargo is loaded. The man-lids are each surrounded by a raised metal lip 90 mm high. At

approximately the mid point lengthwise on the top of the tanker is a dipstick access valve recessed centrally into a well in the metal plates forming the platform. This is a ball valve designed for foot operation. The valve is protected by a valve cap.

- [27] The normal operation of the tanker would firstly involve filling the tanker through one of the hatches or “man-lids” on top, ensuring that the foot valve was closed. The volume of liquid in the tank can be checked by inserting a dipstick through the open ball valve. When the loading process is complete, the tanker is prepared for transportation and the hatches and valve are firmly closed.
- [28] On arrival at the tanker’s destination, the load can be discharged in either of two ways: by pumping or by compression. When Mr. Hutchinson was found, the tractor unit’s engine was running and the discharge pipe work was connected and configured for compression discharge.
- [29] Venting of the tank by opening the valve on top would only be necessary to discharge by the pumping method. Conversely, discharge by the compression method depends on maintaining a tight seal on the tank. The compression discharge would be slow and inefficient if air was allowed in through any opening such as the vent on top. The dipstick access valve would require to remain closed. There would not normally therefore be any need for the tanker operative to access the valve on top of the tanker to discharge by compression. There would be no reason for the tank to be dipped prior to discharge.
- [30] Inspection of the area around the dipstick access valve showed that the valve cap was off and was lying nearby in the well. There was also evidence of solidified spilled contents surrounding the ball valve. This spillage could have arisen when the tank was being dipped, but after the accident it was noted that the dipstick had not been removed from its storage pipe adjacent to the access ladder.

- [31] There were scuffmarks on the offside of the tanker, directly below the dipstick valve and above the point where Mr Hutchinson was found. Mr Martin of HSE gave evidence of the appearance of these marks, which are shown in the photographs. The scuffmarks are consistent with a person sliding down the offside of the tank in the course of falling from the platform to the ground.
- [32] From the evidence, I am satisfied that the most likely scenario to explain these findings is that the valve had been slightly open on the journey to Vicarsford farm, causing the spillage noted in the valve well where the valve cap was lying nearby. Mr. Hutchinson may have realised in preparing to make the discharge that there was a compression problem and gone on top of the tanker to investigate and make sure the valve was closed. If the valve had been slightly open, he would have had to push down on the valve with his foot or hand to close it. The spilled contents would have made it harder to close. At some point in this process he appears to have fallen from the platform, over the unguarded edge at the offside, causing the scuffmarks to the side of the tanker on the way and landing face down with his hands out in front to try to break his fall.

Lighting at the locus

- [33] The accident occurred during the hours of darkness. Mr. Hutchinson was working alone. No Vicarsford Farm employees were present.
- [34] The yard at Vicarsford Farm piggery has lighting. This is used by piggery employees in the early morning for loading pigs before daylight. When Steven Baldie and Mr. Reid came upon the scene of the accident the yard lighting was operable but not switched on.
- [35] Mr. Hutchinson had attended on previous occasions after dark. On one of these earlier occasions, Steven Baldie had show him where the light switch was.

- [36] A torch was provided by his employers, but Mr. Hutchison had not used this when going on to the top of the tanker. The torch was later found in the cab of the vehicle.
- [37] The tanker did not have its own lighting system for illumination of the platform on top.
- [38] Even if the farmyard floodlights had been on, the available light at the top of the tanker would have been low and inadequate. A specialist lighting assessment was carried out by Yasmeen Ahmad of the Ergonomics section of HSE. She did not visit the locus, and based her findings on information and measurements given to her by Mr. Murray. In evidence, the Procurator Fiscal took Ms Ahmad through her report. There are three externally located floodlights in the yard. The first light is situated 8 meters from the rear of parked tanker. The second light is on a wall located behind the silos to the nearside of the tanker. The third floodlight is mounted on a shed some distance away from where the tanker would have been parked.
- [39] HSE Guidance “Lighting at Work” (HSG38) recommends levels of illumination for various types of work areas. Ms Ahmad’s evidence was that, for the purposes of assessing the adequacy of lighting, the activities at the farm yard fell into the category of “movement of machines, people and vehicles”. The minimum average illuminance for this type of work area is 20 lux. In areas where hazardous activities were being carried on, the minimum average illuminance would be 50 lux.
- [40] Mr Murray carried out an exercise on 3 October 2007 at Vicarsford Farm to simulate the state of light/darkness at the time and date of the accident. A Carntyne tanker similar to the one being operated by Mr Hutchinson was positioned as accurately as possible to where it had been at that time. Various light readings were taken at intervals over a period with different combinations of the lights being on/off. For comparison purposes, each of these readings was taken on top of the

tanker with the light meter at two heights; at the inspector's feet level and at his eye level. These results were interpreted by Ms Ahmad and reproduced in her report.

- [41] The results showed that the readings were very low in all situations, and certainly nowhere near the recommended 20 lux. With no lights on, the light level was between 0.0 and 0.3. With the farmyard lighting switched on, the light at foot level on top of the tanker was increased to 0.4. This is a very small variation which would make no practical difference to visibility. A variation between 0.0 and 0.4 is so small that it could not be detected by the human eye. Even if the farmyard lighting had been on, and the tanker parked differently to minimise shadows and maximise available light, that would not have made any appreciable difference to the level of lighting available on top.

Training

- [42] Carntyne have in place arrangements for training tanker drivers. They employ a full-time driver trainer. His duties include providing induction training for new drivers. This involves going out with a new driver for a week or so to teach him the job. The driver trainer thereafter regularly sees the drivers and makes sure they are up to date with any developments they need to be aware of. This informal training is not specifically recorded but Mr. Hutchinson would have had some input of this kind.
- [43] Mr. Hutchinson also undertook the following training modules in the course of his employment with Carntyne:
- (a) Manual Handling Training (19 July 1998)
 - (b) Manual Handling training relating specifically to spirits casks (19 June 1998)
 - (c) Defect Reporting (7 August 1998).
 - (d) Basic Health and Safety (7 August 1998)

(e) Simulation for the Truck Driving Professional (“Scotsim”) initial launch training (3 February 2006).

(f) Road Tankers Training for bulk chemicals delivery.

[44] Mr. Hutchinson had also signed Carntyne record sheets confirming receipt of the Control of Substances Hazardous to Health (C.O.S.H.H.) Regulations in October 1998, and the Carntyne Health and Safety Policy Statement on 28 September 1999.

Risk Assessment and Safe Systems of Work - pre Accident

[45] Carntyne produced a revised Safe System of Work document in December 2005. This identified a number of hazards, including the risk of a fall from the top of the tank. The safe system included the following measures:

- (a) Personal protective equipment to be used – Safety boots, gloves, hi-vis vest, hard hat.
- (b) To gain access/egress to top of tank ensure safety rail is deployed correctly. Some tank bays have fall arrester harnesses which must be worn whilst on top of a bulk tank

[46] Carntyne carried out a risk assessment on 1 August 2006 in relation to the operation of the self-loading pump tank. This specifically covered access to and egress from the top of the tank. The existing control measure is specified as “Ensure safety rail is deployed and secured/locked into position - use the three point contact method”. A recommended control measure was noted: “Do not hold any equipment whilst climbing up or down tank”.

Risk Assessment and Safe Systems of Work – post-Accident

[47] A further risk assessment was carried out and is dated 5 January 2009. In this risk assessment, low levels of lighting at discharge location were recognised as a hazard due to the risk of “slip, trip or fall from

height /ground level while coupling hoses or operating tank controls/man lids”.

[48] The risk assessment dated 5 January 2009 includes the following recommended control measures to be applied:

- (a) Safe System of work to ensure drivers report unsafe access to customers’ storage vessels and await further instructions.
- (b) Fit double handrails to all road tanks where tanker top access is required using the vehicle access equipment.
- (c) Carntyne Management to liaise with delivery drivers to ensure adequate lighting levels.
- (d) Carntyne management to liaise with delivery locations to ensure driver can be accompanied whenever possible during deliveries; safe system of work amended to ensure driver reports to traffic office when lone working occurs.

[49] A Safe System of Work document was issued on 5 January 2009. This includes the following safe work procedures:

- (a) Liaise with consignees to ensure:
 - i. The delivery vessel can accommodate the load.
 - ii. The delivery tank is suitably vented.
 - iii. The lighting is suitable and sufficient for safe delivery.
 - iv. The driver is accompanied at all times during delivery.
- (b) Wear appropriate P.P.E. (Personal Protective Equipment).

[50] On 7 January 2009 Carntyne issued a further Safe System of Work document. This deals with lone working. Where tanks have to be unloaded by a driver with no-one else in attendance a number of precautions must be taken:

- (a) The driver is required to telephone the traffic office and report the lone working situation, location and contact number before unloading commences.
- (b) The driver must make contact every hour during the lone working process.
- (c) The driver must confirm the completion of lone working.
- (d) In the event of a failure by the driver to make contact, the situation is to be treated as an emergency.

Submissions And Conclusions

Provision of Double Guard Rail:

- [51] The tanker was fitted with a top guardrail which extended only along the nearside. The offside was unprotected against the risk of a slip or fall on that side. It was accepted by Carntyne that the provision of a double guard rail covering both sides would have been practicable and might have prevented the accident. Indeed that matter has been the subject of a completed prosecution. Prior to the date of Mr Hutchinson's accident Carntyne were in the process of "retrofitting" their whole tanker fleet with double guardrails. According to Mr. McLean, the majority of tankers had been altered by that date, and the exercise has now been completed. The Procurator Fiscal submitted that I should make a formal finding in terms of section 6 (1) (c) that this was the single precaution by which it could be said that the accident might have been prevented. Mr. Lawson, on behalf of the family, also submitted that this was a reasonable precaution whereby the accident might have been prevented and asked me to make a formal finding in these terms.
- [52] In the course of her submissions Ms Watt, on behalf of Carntyne, accepted that there were two precautions whereby the accident might

have been avoided. She accepted that one of these was the provision of a guardrail on the offside. However, she submitted that it was clear that Mr. Hutchinson had not deployed the nearside guardrail, and that it would have been practicable for him to have done so. She submitted that if he had deployed the existing nearside guardrail it would have been possible for him to have somehow held on to that in a crouched or standing position at the dipstick access valve. Had he done so, she submitted, this might have prevented the accident. On behalf of the family, Mr. Lawson submitted that even if Mr. Hutchinson had deployed the nearside guardrail, this would not have prevented this fall from the offside. Whether or not he held on to the nearside guardrail, there was no evidence that he could have operated the valve with one hand.

[53] In considering this issue, I have had regard to the evidence in particular of Mr. Murray, who was of the view that activating the nearside guardrail would not have prevented the accident. His evidence was that Mr. Hutchinson could have relied on the nearside guardrail to work on the offside only if there was a proper fall arrest system in place. That would have entailed a means of anchoring the operator to the nearside rail by means of a line and harness. It was not disputed that there was no equipment in place to allow this to be done. I accepted his evidence that it would be neither sufficient nor practicable for the operator to work at the valve with one hand while holding on to the nearside guardrail with the other.

[54] For these reasons, I find it established that the provision of a double guardrail on top of the tanker might have prevented this tragic accident. In my view the accident would not have been prevented if Mr. Hutchinson had deployed the nearside guardrail because there were no means available for safely attaching himself to the single rail.

Other tanker design issues

- [55] In the course of his submissions on behalf of the family, Mr. Lawson criticised a number of features of the tanker design, namely the raised lip around the man lid covers, the positioning of the control valve on top rather than at ground level, and the ease with which the guardrail engagement mechanism could be bypassed. There is no direct evidence as to how Mr. Hutchinson came to fall, and it is therefore a matter of speculation whether any of these features played any part in what happened. In any event, had a double guardrail been in place, it is likely that the accident would have been prevented irrespective of the existence of these design features. Therefore I have no formal recommendations to make on those matters in terms of section 6 (1)(c). Nevertheless section 6 (1) (e) is wide enough to impose on the court a duty 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 a circumstance surrounding the death, where it appears to be in the public interest to do so. With this in mind, I have the following observations.
- [56] The man lids are surrounded by a raised protection lip 90mm high. There is no evidence that Mr. Hutchinson did in fact trip over the lip. However, Mr. Lawson submitted that the raised lip should be removed. He referred to Mr. Martin's evidence identifying this as a significant tripping hazard which could be remedied by simply cutting it off. There was no evidence explaining why the lip was incorporated in the design in the first place, or what possible operational or safety considerations, if any, were involved. If the raised lip is there for a good reason, that was not explored in the evidence. If not, then consideration could be given to the suggestion of its removal.
- [57] Mr. Lawson submitted that the control valve and foot valve should be repositioned to ground level, and that would obviate the need for any work to be undertaken at height. Mr. Martin's evidence was that it would be a straightforward exercise to re-route all of the controls to ground level, apart from the dipstick access valve. However, beyond

that assertion there was no more detailed consideration of the feasibility of repositioning the controls, or the impact this would have on other aspects of tanker design and operation. Significantly, Mr. Martin explained that the operative would still require to mount the tanker top to get to the dipstick access valve. Obviously any operation performed at ground level will avoid the risk of a fall from height. However, in the context of this accident and the issues raised, I do not consider that the passing reference to this matter is sufficient to warrant a general recommendation that repositioning the controls in this way should be considered.

- [58] Mr. Lawson, on behalf of the family, criticised the ease with which the ladder could be used without engaging the nearside guardrail. He drew my attention to Mr. Martin's evidence and submitted that this could be remedied by removing the lower rung of the fixed ladder.
- [59] The single guardrail in place at the time of the accident was connected to the ladder at the rear of the tanker. This was a fixed ladder, with a moveable section which could be swung down into place automatically raising the guardrail at the same time. However, when the moveable ladder was deployed its rungs replicated the bottom rung position of the fixed ladder. This meant that there was no incentive to lower the moveable ladder and so raise the guardrail, because even without the moveable ladder it was an easy step from the ground up to the bottom rung of the fixed ladder. I accept Mr. Martin's evidence that if the bottom rung, or even the bottom two rungs, were removed from the fixed ladder this would result in an uncomfortably high step, and would thus encourage use of the moveable ladder activating the guardrail.
- [60] The guardrail showed signs of having been previously struck and dented. Mr. Martin found it quite difficult to deploy and it took several attempts, although Mr. McLean had no such difficulty. If Mr. Hutchinson had experience of the guardrail being difficult to deploy, this may have been a further disincentive to using it.

- [61] The exercise of “retrofitting” the Carntyne fleet with double guardrails has now been completed. It was not clear from the evidence if the new double guardrails are designed to be activated by deploying a moving section of ladder in the same way as previously. If so, I recommend consideration be given to removing the bottom one or two rungs from the fixed ladder to discourage attempts to bypass the engagement of the ladder and guardrails.

Working in the hours of Darkness & Lighting issues:

- [62] The accident took place during the hours of darkness. I accept the evidence of Stephen Baldie and Brian Reid that when they discovered Mr. Hutchinson’s body, the lighting in the yard was in working order but was in fact switched off. I also found it established from Mr. Baldie’s evidence that Mr. Hutchinson had been aware of the position of the light-switch.
- [63] It is clear that Mr. Hutchinson was working on top of the tanker in very little light, if any at all. It is equally clear that the farmyard lighting, had it been on, would not have added any significant amount of light to the area of the top of the tanker. I am not persuaded that had the lights been on and the tanker repositioned to make the most of what lighting there was, that would have made any significant difference.
- [64] The farmyard lighting was criticised by HSE and by Mr. Lawson in his submissions on behalf of the family. Mr. Murray in his evidence stated that the lighting at the locus as measured by him would not have been adequate for the unloading operation. Mr. Lawson submitted that a risk assessment should have been undertaken in relation to the lighting on site, if deliveries were to be made outwith daylight hours. Such a risk assessment should have been carried out by both Carntyne, as employers, and FRCP, as occupiers of the premises. Had such a risk assessment been undertaken, it would have revealed that lighting at the yard was inadequate, and below the guidelines spoken to by Yasmeen Ahmad. Mr. Lawson accepted that Mr. Hutchinson had been provided

with a torch, but had not used it. However he pointed out that the Risk Assessment by Carntyne dated 1 August 2006 stated that employees should not hold any equipment while climbing up or down the tank. He submitted that it would have been a reasonable precaution to provide a head-torch, so that anyone venturing onto the top of the tanker could do so with free hands in line with the risk assessment.

- [65] Mr. Baillie submitted that I should not make adverse findings about the lighting at the yard so far as FRCP were concerned. It was not their responsibility to oversee a visiting driver's unloading operations and safety equipment. Mr. Hutchinson knew where the light-switch was located but did not switch the lights on. The external lamps mounted on the sheds are used in the early morning in Winter when animals are being moved from the unit before daylight. The evidence showed that the lamps were adequate for this purpose. Deliveries of liquid feed had been made regularly every 10 days or so for the last 10 years, and a number of these deliveries had been made in the dark. There had never been any complaints about the standard of lighting by drivers, contractors or statutory authorities. In any event, prior to the accident, Carntyne had requested deliveries within the working day and no later than 4 p.m.
- [66] The exact cause of Mr. Hutchinson's fall is not known. There is no basis in the evidence to suggest a real possibility that the accident might have been avoided by improving the lighting. Indeed there is no evidence that the state of light at the time was a factor. For these reasons I make no formal findings in terms of section 6 (1) (c) with regard to the lighting.
- [67] Mr. Hutchinson would have been working virtually in darkness. It is obvious that the risks associated with carrying out any work operation, especially at height, are increased if visibility is reduced by poor light. It is therefore appropriate to comment in terms of section 6 (1) (e) on the lighting issues.

- [68] Since the accident, FRCP have implemented a strict policy of receiving no deliveries after 4 p.m. Carntyne's Risk Assessment dated 5 January 2009 recognises that some deliveries may be made outwith daylight hours, and makes provision for that. Management are to liaise with delivery customers to ensure adequate lighting levels at discharge locations.
- [69] If deliveries are to be made during the hours of darkness, then it would seem reasonable for employers to provide the driver with some means of illumination independent of the customer. I was surprised to learn that the tankers are not fitted with lighting to cover the top platform area. Mr. Murray and Mr Jeffries expressed that view that it would be possible to attach a spotlight to the rear of the cab to direct light along the top, although Mr Jeffries pointed out that this might not be appropriate for use in all situations; such as where there is a risk of explosion. Mr. McLean's evidence was that it would not be practicable to attach a light to the vehicle at that height. Mr. Hutchinson had not taken his torch with him on the occasion when he fell. It was found in the cab of his tanker after the accident. The kind of torch provided to drivers was unsuitable for carrying out tasks on top of the tanker because it was hand held, necessitating the driver climbing the ladder and working at height with one hand. The suggestion of a head torch has some merit. This would keep both the driver's hands free, and would be a suitable and reasonably inexpensive option in the absence of fixed lighting mounted on the top of the vehicle. I therefore recommend that drivers should be provided with a head torch if it is not reasonably practicable to provide fixed lighting.

Working Alone

- [70] Mr. Hutchinson was working on his own at the time of the accident. He appears to have died almost immediately after he fell. There is no evidence to suggest that the outcome was likely to have been any different had there been someone else in attendance at the unloading. I

therefore conclude that accompanied working is not a precaution which might have avoided this accident.

- [71] Nevertheless, Carntyne have acted to recognise that working alone does carry the risk that a driver might be unable to summon assistance in the event of taking ill or being injured. The Safe System of Work document dated 7 January 2009 sets out that the driver is to report a lone working situation before starting to unload, and then report in hourly and upon completion. The alarm would be raised if the driver then failed to make a scheduled phone-in. This is a worthwhile and commendable innovation.

Personal Protective Equipment

- [72] I have made observations above in relation to the possibility of providing a head torch to tanker operatives. The provision of a harness and running line to secure the operator to the guardrail is superfluous now that the tanker fleet are all fitted with double guard rails.
- [73] In relation to headgear, there was no suggestion in the evidence that the outcome of the accident would have been any different had Mr. Hutchinson been wearing the hard hat which was found in his cab. No submissions were made to the effect. That is understandable having regard to the way in which he must have fallen from the tanker and the nature of his injuries. I consider that his death would in all likelihood not have been avoided had he been wearing a hard hat.

Risk Assessment

- [74] At the time of the accident, the risk assessment in force was the version dated 1 August 2006. In relation to access to and egress from the top of the tank, the existing control measure identified is *“to ensure safety rail is deployed and secured/locked into position, use three point of contact method”*. The recommendation is *“Do not hold any equipment whilst climbing up or down tank”*.

- [75] On behalf of the family, Mr. Lawson submitted that this was inadequate given what happened to Mr. Hutchinson. On behalf of Carntyne, Ms Watt submitted that there was no evidence that the risk assessment itself was deficient.
- [76] Risk assessment is a process which raises issues of foreseeability. It is beyond the scope of this Inquiry to make observations about reasonable foreseeability, or findings of fault.
- [77] I note that the latest risk assessment dated 5 January 2009 includes a recommendation to *“Fit double hand rails to all road tanks where tanker top access is required using the vehicle access equipment”*. The evidence was that this has now been acted on and double guard rails now provided to all tankers in the Carntyne fleet.

Training

- [78] Reference is made at paragraphs 23 – 25 above to Carntyne’s training system in general, and the training provided to Mr. Hutchinson in particular. On behalf of the family, Mr. Lawson pointed out that there was no specific formal training in the operation of the dipstick access valve. He submitted that such specific training should have been provided. On behalf of Carntyne, Ms. Watt submitted the company had an adequate training system in place, Mr. Hutchinson was an experienced employee with 14 years service, and in any event there was no evidence that he lacked training or experience. I prefer the submissions of Ms. Watt on this point. There is no evidence that a lack of training or experience had a part to play in this accident.

Concluding Remarks

- [79] My responsibility is to make a determination on this matter pursuant to section 6 of the 1976 Act, which I have done. It is not the function of an Inquiry to make any findings of fault or to apportion blame. Questions of what might or might not have been reasonably foreseeable are for consideration elsewhere and are not appropriate to this forum. The statutory provisions are widely drawn and are intended to permit retrospective consideration of matters with the benefit of hindsight. They are concerned with the existence of reasonable precautions at the time of the death and are not concerned with whether they should have been recognised. There is no question of the reasonableness of any precaution depending on the foreseeability of risk. One of the purposes of holding an Inquiry is to investigate the circumstances of the accident so that lessons can be learned with a view to preventing, or at least minimising the risk of, a similar accident in future. Causation has a role in determining what findings can be made under section 6 (1)(c) or (d), but section 6(1)(e) permits consideration of circumstances which are relevant to the death but might not have been established to have had a causal link.
- [80] In my view the only precaution which might have prevented this accident and Mr. Hutchinson's death was the provision of a double guardrail. Whatever other steps which could have been taken to minimise the danger of a fall from height from the top of the tanker, I am satisfied that he would not have fallen to his death had this been in place at the date of his accident.
- [81] Although my formal findings under section 6 (1) (c) are restricted to the provision of a double guardrail, I have made a number of observations about other matters relevant to the safety of those employed in the operation of road tankers.
- [82] I wish to express my thanks to the Procurator Fiscal and agents appearing at the Inquiry for their assistance in taking the evidence, and for their clear, careful and helpful submissions

- [83] At the Inquiry, the parties' representatives expressed their condolences to the family for Mr. Hutchinson's death. It only remains for me to associate myself with their remarks, and extend to the family my deepest sympathy for their tragic loss.

Sheriff Peter G. L. Hammond