

SHERIFFDOM OF NORTH STRATHCLYDE AT DUMBARTON

FATAL ACCIDENTS AND SUDDEN DEATHS INQUIRY (SCOTLAND) ACT
1976

DETERMINATION

of

SHERIFF SIMON C. PENDER

Following an Inquiry into the
circumstances of the death

of

ANTHONY STEFAN
CZERNIK

Dumbarton: 22nd January 2010

The Sheriff, having resumed consideration of the evidence and submissions,
determines as follows:

1. Under section 6(1)(a) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 ("the Act"), that Anthony Stefan Czernik, aged 57 years, Forklift Truck Maintenance Engineer, of 30 Lindsay Road, East Kilbride, died between about 12.46 hours and about 13.00 hours on 11th April 2008, within a building known as "The West Works" or "The Black Shed" at Whitecrook Works, Stanford Street, Clydebank, the premises of RHI Refractories UK Limited (formerly known as Thor Ceramics), as a result of an accident which took place at about 12.46 hours, at the same place.

2. Under section 6(1)(b) of the Act, that the cause of Anthony Stefan Czernik's death was traumatic asphyxia, as a result of being crushed under a forklift truck which fell onto his upper body, whilst he was working underneath it. Determines further that the cause of the accident was that a jack, with which Anthony Stefan Czernik had lifted the rear of the forklift truck, prior to placing his head and upper body beneath the truck, failed to remain in position, allowing the chassis of the truck to drop suddenly onto his chest.
3. Under section 6(1)(c) of the Act, that the death of Anthony Stefan Czernik, and the accident resulting in his death, might have been avoided had the forklift truck on which he was working been supported by blocks of wood (or other suitable material) under both sides of the chassis, or by shaped blocks designed to be located under the wheels of the forklift truck for the purpose of holding it in a raised position, instead of being supported only by the jack which had been used to raise the truck to the required height. Determines further that supporting the forklift truck with blocks as aforesaid would have been a reasonable precaution.
4. Makes no determination under section 6(1)(d) of the Act.
5. Under section 6(1)(e) of the Act, that, in addition to placing blocks of wood (or other suitable material) under the chassis of a forklift truck, or shaped blocks, designed for the purpose, under the wheels of a forklift truck, after jacking it up, and before placing any part of one's body underneath it, it is a reasonable precaution also to chock any wheels remaining in contact with the ground, so as to prevent any movement of the forklift truck in the event, *inter alia*, of failure of its handbrake to operate properly.

Note:

This Fatal Accident Inquiry into the death of Anthony Stefan Czernik on 11th April 2008, whilst he was working in the course of his employment, carrying out repairs to a forklift truck, took place on 15th, 16th and 17th April, 5th and 15th June, and 5th August, all 2009.

The Crown was represented by Miss Jamieson, Procurator Fiscal depute. Also represented at the Inquiry were the deceased's family, who were represented by Mr Paul Santoni, solicitor, Nacco Materials Handling Limited ("Nacco"), the manufacturers of the forklift truck in question, who were represented by Miss Carly Forrest, solicitor, RHI Refractories UK Limited ("RHI"), the owners of the premises where the accident took place, who were represented by Mr Paul Wade, solicitor, and Douglas Gillespie Plant Limited("DGP"), the deceased's employers, who were represented by Mr George Moore Q.C.

The Crown led evidence at the Inquiry from the following witnesses:

1. Robert Herd, service manager with the employers of the deceased.
2. Craig Munro, forklift truck engineer with the employers of the deceased.
3. Ian Donald McLean, service engineer with the employers of the deceased.
4. Andrew Inglis, janitor at the premises where the accident occurred.
5. Kevin McCarron, forklift truck driver with the owners of the premises where the accident occurred.
6. Police Sergeant Iain Sibbald.
7. Hance Adair McPherson, retired managing director with Prolec, engineers.
8. Alexander Smith, mix plant supervisor at the premises where the accident occurred.

9. Police Constable Gary Mackay, Crash Investigation Unit of Strathclyde Police, traffic division.
10. Norman Bruce Buchanan, HM Inspector of Health & Safety, Health & Safety Executive.
11. Alex Grimes, mechanical engineer, of the Engineering Safety Unit, Hazard Reduction.
12. James Downes, technical support person with Barloworld Handling Limited, supplier of the forklift truck in question.
13. William Lang, maintenance manager at the premises where the accident occurred.
14. Richard Wilson, principal mechanical engineering inspector with the Health & Safety Executive.

I found all of these witnesses to be credible and, save as aftermentioned, reliable. With regard to the witnesses Robert Herd and Craig Munro, I did not consider their evidence to have been materially influenced by shock, upset or “possible denial” over the death of Anthony Czernik, as suggested by Mr Santoni. Whilst Anthony Czernik’s death had clearly been upsetting for them, they appeared to me to give their evidence in a very straightforward and capable manner, and it had a solid flavour of credibility and reliability.

No evidence was led by or on behalf of any of the other parties represented at the Inquiry.

Certain facts were the subject of agreement in two Joint Minutes of Admission.

The place, date, and approximate time of Anthony Czernik’s death and the accident leading to his death, and the cause of his death and immediate cause of the accident leading to his death were all matters which were not in dispute, and I have made appropriate findings under sections 6(1)(a) and (b) of the Act.

It also did not appear to me to be in dispute that if Anthony Czernik was going to position any part of his body (with the possible exception of his arm only) under the forklift truck on which he was working, whilst the truck was jacked up, he should have ensured that the truck was supported on each side by blocks of wood or other suitable material, so that he was not relying only on the jack to prevent the truck from falling onto him. It also seemed to me to be a matter of agreement that to support the truck in that way would have been a reasonable precaution to take, whereby Anthony Czernik's death, and the accident leading to his death, might have been avoided. It was the evidence of all witnesses who spoke on the matter that none would position his head and upper body under a truck relying on the jack alone. They would all have ensured that the truck was first supported by suitable blocks. It was the general thrust of their evidence, which I accepted, that any qualified engineer, and particularly an engineer of Anthony Czernik's training and experience would be well aware of the necessity of these precautions. I have therefore made appropriate findings in respect of these matters under section 6(1)(c) of the Act.

Otherwise the facts of the matter in so far as agreed, or not in dispute, were, in summary, as follows:

DGP, the employers of Anthony Czernik, are, and were at the relevant time, in the business of hiring plant, including forklift trucks, throughout Scotland, including the Clydebank area. Forklift trucks on hire from DGP are serviced at the customer's premises on a regular basis, every three months, by a local engineer employed by DGP. DGP also have responsibility for breakdowns and other faults arising in forklift trucks hired by them, by way of sending an engineer to the customer's premises to deal with the problem. It is the preference of DGP to allocate the engineer who usually attends to servicing at the premises of the customer in question. The customer has responsibility only for routine matters, such as checking oil and tyre pressures.

The majority of engineers employed by DGP own their own hand tools. When they are employed a check is made in respect of the tools they have, and

anything necessary which the engineer does not already have is supplied by DGP. In particular DGP supplies jacks and stands. DGP also provides each engineer with a van. Engineers employed by DGP have different requirements as far as tools are concerned, depending on the types of vehicles they usually work on.

Service manuals for vehicles hired by DGP are kept in DGP's workshop. It is not possible for engineers to carry with them all the manuals they might need. These service manuals are available to all engineers.

One of DGP's customers at the relevant time was RHI. The engineer normally allocated to RHI was Craig Munro. If for any reason he was not available to attend at RHI, DGP would usually send Ian Mclean or John Docherty.

For a period of about seven or eight years Anthony Czernik attended at RHI. However he was one of the most experienced and skilled engineers employed by DGP, and was eventually moved into the workshop, to deal with emergency repairs, and also to provide support for engineers in the field.

One of the vehicles hired by DGP to RHI at the material time was a Hyster forklift truck. On or about Sunday 6 April 2008 Craig Munro was called to RHI in connection with a problem with the starter motor on the Hyster truck. He made a temporary repair. The next day he removed the starter motor and took it to a company called Prolec for repair. On Wednesday 9 April Craig Munro refitted the repaired starter motor.

On Thursday 10 April Craig Munro was called by RHI again, the starter motor having failed once more. That afternoon he removed the starter motor from the truck again. However, he was due to be in Oban the next day, and did not have time to take the starter motor to Prolec. He left the starter motor on the seat of the truck, and telephoned his manager, Robert Herd, to explain. He also spoke, either that day or the following morning, to Anthony Czernik, whom he informed that the starter motor was on the seat of the truck and had to go to Prolec for repair. Craig Munro expected Anthony Czernik simply to

take the motor to Prolec -- he did not expect him to refit the motor after repair. He expected to get the repaired starter motor back from Prolec the following Monday, and to refit it himself.

On the morning of 11 April 2008 Anthony Czernik attended at the premises of RHI to collect the starter motor from the forklift truck, which was sitting in a building known as the "West Works", or the "Black Shed" (having been moved there prior to the starter motor being removed by Craig Munro). He took the starter motor to Prolec for repair. Unexpectedly, Prolec were able to repair the starter motor that morning. Anthony Czernik collected it and returned to the West Works at RHI.

Anthony Czernik proceeded to place a jack under the counter weight at the rear of the forklift truck. He jacked the truck up to an unknown height, and placed a small block of wood measuring approximately 9.75 inches X 3 inches X 3 inches (which was produced) under the sill of the truck on the left, or nearside, of the truck. He proceeded to place his head and upper part of his body, from the chest up, under the truck, on the right hand side, or offside. At around 12:46 hours the jack became dislodged from under the forklift truck, causing the truck to fall onto Anthony Czernik's chest. That in turn caused the injuries which led to his death. The nearside sill of the truck remained in an elevated position, supported by the small block of wood. That block of wood provided no support whatsoever to the side of the truck under which Anthony Czernik had placed his head and part of his body. It is not known whether, prior to the jack becoming dislodged, the nearside sill was resting to any extent on the small block of wood, or whether the block of wood was positioned under the sill, which came to rest on it when the jack was dislodged. The jack was of an appropriate type and had sufficient load capacity to raise the forklift truck in question. It was in proper working order. Anthony Czernik was discovered under the truck by Kevin McCarron, a forklift truck driver employed by RHI, at about 13.00 hours. There was no sign of life then or thereafter.

At all material times the forklift truck was sitting on an even, level, concrete floor. The process carried on at RHI creates graphite dust, which accumulates on the floor of the West Works. There was graphite dust present on the floor in the area of the West Works where the forklift truck was sitting.

The issues which arose in during the course of the Inquiry, and which arose by way of the submissions made by Mr Santoni when inviting me to make certain determinations under sections 6(1)(d) and (e) of the Act, were as follows:

1. Whether suitable blocks, for blocking forklift trucks up after they had been jacked to a sufficient height to enable an engineer to work underneath them, and for chocking any wheels of the truck remaining on the ground, were or should have been provided to Anthony Czernik and other employees by DGP, and whether such blocks should have been of a uniform specification, and in particular, similar in style and specification to those shown in Crown Production 19 (photographs of blocks used by Barloworld, the suppliers of the forklift truck in question).
2. Whether DGP, as employers, "audited" or should have "audited" blocking equipment carried by their engineers in their vehicles, and not allowed employees to carry out work under forklift trucks unless such blocking equipment was available.
3. Whether the blocking equipment actually available to employees of DGP, being, in Mr Santoni's submission, "random pieces of soft wood sourced on an ad hoc basis via a fellow employee of the deceased via one of his employer's customers", was inadequate, inappropriate, and (in Mr Santoni's words) "incapable of any proper form of audit, inventory or risk assessment".
4. Whether there was a proper risk assessment by DGP, as employers, into the equipment used by its employees for blocking forklift trucks

when working underneath them, including a risk assessment of the minimum height at which work could safely be carried out.

5. Whether there were deficiencies in the investigation carried out into the accident by the Health and safety Executive.

In addition to the foregoing issues, certain factual issues arose during the course of the Inquiry, as follows:

1. Whether it was necessary for Anthony Czernik to position part of his body, as opposed to simply inserting his arm alone, under the truck either to install the starter motor, or to inspect the ring gear.
2. Whether the jack used by Anthony Czernik to raise the forklift truck was being used in the correct mode.
3. Whether the presence of graphite dust on the floor contributed to the accident.
4. Whether there was some emergency or pressing need for the starter motor to be replaced so quickly that Anthony Czernik ignored the usual safety procedures of blocking the forklift truck up (and not relying on a jack alone), before placing his upper body beneath the forklift truck.

Submissions for the Crown

Miss Jamieson began by referring to the evidence that the late Anthony Czernik was a very competent man who had worked for DGP for a number of years. He was thought of highly by his colleagues who went to him for advice. Robert Herd, the company's service manager, had known Mr Czernik for 30 years, having worked with him previously. He had described Mr Czernik as one of the most experienced service engineers in the company. He had said that he was very popular, very helpful, and very talented. Tragically, Mr

Czernik had died when carrying out the refit of a starter motor to a forklift truck.

Pursuant to the provisions of Section 6(1)(a) of the Act, Miss Jamieson invited me to make a determination that Anthony Czernik died on 11 April 2008 in the West Works of the premises of RHI Refractories UK Ltd, Stanford Street, Clydebanks G81 1RW (formerly trading as Thor Ceramics) between 12.46pm and 1.00pm when a forklift truck, a Hyster Diesel H2.50XM counter balance forklift truck, being worked on by Mr Czernik fell onto him.

She also invited me to make a determination under Section 6(1)(b) of the Act that the cause of death was traumatic asphyxia due to industrial accident caused when the said forklift truck being worked on by Mr Czernik fell onto him.

She submitted that there had been no systemic failures on the part of Mr Czernik's employers, DGP, nor of the owners of the plant where the accident took place, RHI. The accident, she said, appeared to have been caused by an unsafe working practice on the part of Mr Czernik on the day in question.

In relation to Section 6(1)(c) of the Act, as to whether there were any reasonable precautions whereby the accident might have been avoided, Miss Jamieson referred to evidence from James Downes of Barloworld Handling, whilst referring to the Hyster operating manual (Defence Production No 1), that he would jack the truck up and use blocks on both sides to make sure it was safe before going under the truck. His company now use metal 'v' blocks to enable the tyres to be settled onto them as a result of a near accident some years ago when a forklift truck rim slid off the jack. He had acknowledged, however, that wooden blocks could be used and that the single block used by Mr Czernik, on the side of the truck opposite to the one where he was working, would take the weight of the forklift truck in question. He had given evidence that the manual could not list every single operation requiring the raising of a truck, as there are so many reasons why someone would have to

lift a truck, and the engineer would use his own experience in carrying out his work.

The evidence, said Miss Jamieson, showed that the service engineers are responsible for the method of carrying out their work. All such engineers are given training by the company on risk assessment and are provided with a risk assessment manual (Crown Label No 10) which is up-dated as and when required. The employees are shown how to jack and block up a truck. If they are unsure of what to do, they are to refer to the manual which is supplied with each forklift truck. The employers also state, in their safety method statement (Crown Label No 12), a requirement to follow the manufacturer's recommendations for the various models in their maintenance manuals as to the method of removing or refitting the starter motor. This would include how to block up the truck to enable the starter motor to be removed or refitted. It also advises employees to watch for possible hazards including oil contamination, slipping and crushing. It was, she said, evident from the evidence that anyone working at the site was aware of the presence of graphite on the floor, and of the need to take this into account.

Miss Jamieson pointed out that the safety method statement also advises employees to work in, or ask to work in, a designated safe area. The Court had heard that if service engineers were not happy about where they were to carry out their work, they would approach the owners of the premises to discuss this. Craig Munro had worked on the forklift truck where it had been taken to for repair after it had broken down. Mr Lang, an employee of RHI, had been asked if Mr Czernik had approached him to say he was not happy about the location of the truck and he confirmed that he had not.

Miss Jamieson submitted that in this case the reasonable precautions whereby the accident might have been avoided in terms of Section 6(1)(c) of the Act, and the defects in any system of working which contributed to the accident in terms of Section 6(1)(d) were closely linked. The Court had heard evidence from Craig Munro, Robert Herd, Ian McLean and Jim Downes that they would not go under the forklift truck as supported by Mr Czernik. Further,

Craig Munro had said that he would not go under the forklift truck to carry out such a refit – he would reach in with his arm only. Mr Munro, when he removed the starter motor, had only jacked up the forklift truck with a scissor jack to enable him to reach under with his arm. He had not used blocks to carry out this job. They were not required in order to enable him to do this. No one who gave evidence in relation to how the refit would be carried out by them had said that they would have jacked the forklift truck up in the manner in which Mr Czernik had. It was clear, in Miss Jamieson's submission, that the block of wood used by Mr Czernik had been able to support the weight of the forklift truck. However, it was the absence of such a block on the side on which Mr Czernik was working which sadly led to him being crushed when the jack came away.

Miss Jamieson submitted that the evidence had established that various pieces of wood are available for service engineers to use – what is required depends on the type of job being done. It is left to the engineer's discretion to decide what tools to use in relation to any given job, and he is able to obtain anything he needs from his employers. None of the witnesses who had given evidence in relation to carrying out such a refit would have jacked or blocked the truck up in the manner in which Mr Czernik had done, and nor could those who were aware of his knowledge and skills understand why he had done it in the way he did. Miss Jamieson submitted that the manner in which Mr Czernik had carried out the jacking and blocking of the truck had been defective. In particular, the blocking of the truck had contributed to a large extent to his death, as had the forklift truck been blocked up at the side on which he was working, then the forklift truck would have been supported when the jack gave way.

With reference to Mr Santoni's submissions in relation to Section 6(1)(e) of the Act, Miss Jamieson submitted that the investigations carried out by the Health & Safety Executive had been relevant and competent. Their conclusions, she said, had shown that the hydraulic jack had been working, and capable of lifting and supporting a weight equivalent to lifting the rear of the forklift truck in question; that the block of wood had been capable of

supporting a load well in excess of that of the forklift truck in question; and that the presence of graphite at the locus had been likely to have reduced the floor's coefficient of friction. She submitted that these were relevant factors in the case. Other investigations or the lack thereof had not contributed to the manner in which Mr Czernik had jacked or blocked the forklift truck up on the day in question – that method of work, she said, had rested with Mr Czernik in his experience.

Miss Jamieson concluded by suggesting that what happened to Mr Czernik on the day in question was tragic, but she did not seek to lay the blame on the shoulders of the deceased, as Mr Santoni had suggested was the case. Rather it was her position, based on the evidence in the case, that it appeared that Mr Czernik had used an unsafe system of working, and that no-one could understand that, given his experience and skills. No one will know, she said, what had led Mr Czernik to jack the forklift truck up and block it on the opposite side from the one on which he was working, and to omit to block it on the side on which he was working. Whether the job had been an emergency or not, she maintained that the choice had lain with Mr Czernik as to how to go about refitting the starter motor.

She invited me to make a “formal” determination only, under section 6 of the Act.

Submissions for the family of Anthony Czernik

Mr Santoni intimated that his clients were content that a formal determination (based on Submissions intimated to him in advance by the Crown) under Section 6(1)(a) and (b) of the Act be made with regard to the place, time and cause of death.

With regard to Section 6(1)(c) of the Act Mr Santoni proposed that I make the following finding:-

That the death might have been avoided had the deceased had available to him and utilised adequate and proper supports securing the forklift truck whilst he worked underneath it.

Mr Santoni went on to say that his clients' principal concerns related to Section 6(1)(d) of the Act in relation to the defects in the system of working which contributed to the death. He proposed that I make the following findings:

1. That the deceased should have been provided by his employer with adequate and proper supports (a) to chock the front wheels of the forklift; (b) to support properly the forklift to an adequate height to enable a person to work underneath it; and (c) of a uniform specification and type to achieve this. In particular the blocks should have been supports of the type as shown for example in Crown Production 19, as used by Barloworld, or of similar style and specification.
2. That the deceased's employers should have provided such uniform equipment as mentioned in 1 above to all employees carrying out similar duties to the deceased or for blocking and securing trucks being worked upon.
3. That the deceased's employers should have, in any event, carried out an audit of the blocking equipment carried by each of their employees in their vehicles and not allowed employees to carry out work under or on any forklift unless such blocking equipment was available.
4. That the blocking equipment, being random pieces of soft wood sourced on an *ad hoc* basis via a fellow employee of the deceased via one of his employers' customers, was inadequate and wholly inappropriate for purpose and incapable of any proper form of audit, inventory or risk assessment.

5. That there had been no proper risk assessment carried out by the employers of the deceased into the equipment used by their employees for blocking or securing trucks when the employees required to work on or underneath them.
6. That no risk assessment had been carried out by the deceased's employers to identify the minimum heights at which work could be safely or competently carried out by a person of average build underneath a forklift, in particular the carrying out of any necessary maintenance, repair or inspection.

Under Section 6(1)(e) Mr Santoni proposed that I make the following finding:

That the investigation by the Health and Safety Executive into the accident which resulted in the death of the deceased was incompetent, conclusion led and failed properly to address or investigate fundamental and relevant issues, in particular; (a) the exact faults with the forklift truck on which the deceased was attempting a repair or investigation; (b) The exact mechanism which caused or contributed to the jack ejecting; (c) The audit, risk assessment, or indeed any other form of investigation into the existence of, or the actual blocks used, the supply or provision of blocks by the employers to the deceased or fellow employee for the purposes of blocking up trucks; (d) any form of investigation to the safe height below which work could competently be carried out under a forklift truck.

In support of the findings he proposed, Mr Santoni said that, with regret, he would begin with submissions in respect of his proposed finding under Section 6(1)(e) of the Act. In his submission the investigation into the accident had been fundamentally incompetent and conclusion led. It had been, he said, simply concluded that the deceased had not blocked up the truck when there

was no doubt that he should have done, and that therefore his death had been entirely attributable to his own fault and responsibility. The investigators from the Health and Safety Executive appeared to have taken anything that had been said at face value, without giving it proper thought or investigation.

He went on to give a number of detailed examples of claimed deficiencies in the investigation, in particular in relation to *inter alia* an error in ascertaining where and how the single block used by Anthony Czernik had been positioned, the lack of investigation into defects in the truck, other than relating to the starter motor, the lack of measurement and examination of the jack which had been used, the lack of investigation into the exact mechanism of the jack becoming dislodged from under the forklift truck, and the lack of investigation into the availability and suitability of blocks for supporting raised vehicles.

Mr Santoni asked me to look carefully at Productions 4, 6 and 23 and the various differences between them, and to ask myself whether these were characteristic of an impartial and thoughtful investigation, or not.

He then turned to his submissions with regard to the defects in the system of working in respect of which he maintained that I should make findings.

Mr Santoni made detailed submissions in relation to the availability and adequacy of blocking equipment, accepting, as he did, that whatever the reason for Anthony Czernik being under the truck, he had decided, using his skill and experience, that that was necessary. He also made detailed submissions as to the lack of a proper risk assessment of the heights to which trucks required to be raised to facilitate safe working underneath them.

He further submitted that the evidence had shown that the deceased had decided to work under the truck without adequate support, because the repair was an urgent one.

He challenged the suggestion in evidence that the operation to replace a starter motor in this type of truck, and the inspection of the ring gear with which the starter motor engages, could be carried out without placing one's head and upper body underneath the truck.

Mr Santoni concluded by saying that he was particularly conscious of his responsibilities to not only the family of the deceased, who had been most directly and personally affected by this tragedy, but also as an officer of the Court, and that whilst he did not mean to be flippant, he suggested that this was a case in which "it seemed to have been assumed that it was all too easy to blame the dead because they cannot answer back".

Submissions for Nacco Materials Handling Limited, the manufacturers of the forklift truck in question

Miss Forrest began by offering her sympathies and those of her clients to Mr Czernik's family. She adopted the submissions made for the Crown in relation to sections 6(1)(a) and (b) of the Act, i.e. as to the date, time, place and cause of death.

In relation to Section 6(1)(c) of the Act - the reasonable precautions whereby the death might have been avoided – she submitted that there were no reasonable precautions which her clients, the manufacturers of the truck involved in the accident, had not taken which they should have. On the basis of the evidence heard during the course of the Inquiry she suggested that I would not want to make any recommendations which would impinge on the manufacturers.

In relation to section 6(1)(d) of the Act - the defects in any system of working which contributed towards the death - in Miss Forrest's submission the guidance issued by the manufacturers was perfectly clear and there were no relevant recommendations to be made in this regard.

The manufacturers had given guidance in their Operating Manual (Production

number 1 for Nacco) which accompanied each and every truck sold including the truck involved in the accident. James Downes from Barloworld had confirmed in evidence that the Operating Manual was supplied to customers along with the truck. It was kept behind the seat of each truck, and it was an insurance requirement to own this manual.

Miss Forrest referred to pages 55 and 56 of the Operating Manual where the procedure for "HOW TO PUT THE LIFT TRUCK ON BLOCKS " is set out. Robert Herd, the Service Manager of DGP had stated in response to a question from the Procurator Fiscal that the procedure shown in this manual was the normal way to lift and block trucks.

James Downes had stated in his evidence that an engineer should use his own experience when deciding whether to block up a truck. Page 55 of the Operating Manual has a warning which states that "The lift truck must be put on blocks for some types of maintenance and repair". James Downes had stated that it is not possible to list each and every occasion when it might be necessary to block up a lift truck, and that an engineer uses his own experience when deciding when to block up a truck. Miss Forrest pointed out that there is a warning given at page 53 of the Operating Manual which states "Do not make repairs or adjustments unless you have both authorization and training. Repairs and adjustments that are not correct can make a dangerous operating condition." Mr Downes had agreed in his evidence given during cross examination that this indicates that it is expected that someone with the requisite knowledge and experience should carry out any repairs or adjustments to the truck. He had also agreed that the way the deceased blocked up the truck was not the way recommended by the manufacturers in the Operating Manual.

In relation to Mr Czernik's experience Robert Herd, Service Manager of DGP, had described him as "probably one of the most highly talented, experienced people in our company. He was very popular and very helpful." He had also described the deceased as someone who could be called upon to help others because of his experience.

In response to a question from Mr Moore for DGP, Robert Herd had said that Mr Czernik was without a doubt one of their most experienced engineers and it would be “very unlikely” that he did not know the correct method for blocking up this type of truck. He had agreed that the deceased could be described as a safe and careful employee who would share safe methods of working with others and give others a dressing down if they were not doing something correctly.

Despite having thought about it a lot, Mr Downes had been unable to explain why the deceased would have been working on the other side from where he had placed the piece of wood. He had stated that when he was first told that this had been the case he did not believe it because Mr Czernik was too experienced. Even if he had only used one block, Mr Herd would have expected him to put it on the right hand side of the truck, the side where he was working.

Miss Forrest also pointed out that Nacco refer back to the guidance in the Operating Manual within their other publications, which were also referred to during the course of the Inquiry.

Crown Production 21 is the Hyster Periodic Maintenance Manual and states at Page 1 under the heading “Safety Precautions – Maintenance and Repair” that anyone working on the truck should “Always use correct blocks to prevent the unit from rolling or falling. See HOW TO PUT THE LIFT TRUCK ON BLOCKS in the Operating Manual or the Periodic Maintenance Section.” Users are also advised to “Use the correct tools for the job”. In addition page 2 of this manual specifically covers the procedure for “HOW TO PUT THE LIFT TRUCK ON BLOCKS” and re-iterates in detail the guidance which is contained at pages 55 and 56 of the Operating Manual.

Crown Production 22 is the Hyster Starter Delco booklet and again gives similar guidance on the first page i.e. “Always use correct blocks to prevent the unit from rolling or falling. See HOW TO PUT THE LIFT TRUCK ON

BLOCKS in the Operating Manual or the Periodic Maintenance Section.” It also advises users to “Use the correct tools for the job”.

Miss Forrest went on to refer to the evidence from Richard Wilson, HM Principal Specialist Inspector (Mechanical Engineering) to the effect that the conclusion he had reached following an examination of the forklift, the jack and the block of wood was that the deceased was in the process of replacing the starter motor but had not completed the task. He had been informed that the block of wood had been found at the nearside axle but the conclusion reached was that the whole weight of the forklift had been resting on the jack and somehow the downward force had caused the jack to “pop out” from the rear of the truck. He had said that there should have been fixed supports used, but for some reason the deceased had placed himself under the truck when it was supported with a jack alone. Although the deceased had placed a block on the opposite side this provided no lifting support whatsoever.

In Mr Wilson’s view had the deceased followed a safe system of work and used at least two blocks the accident would not have happened. This had been re-iterated by Norman Buchanan, HSE Inspector, in response to a question from Mr Moore. He had been asked whether, if the deceased had placed a block of wood at the other side this may have saved his life, to which Mr Buchanan had answered “tragically yes.”

During his evidence Mr Wilson had been referred to the Hyster Periodic Maintenance Manual (Crown Production 21) and the Starter manual (Crown Production 22) which recommends that users should "Always use correct blocks to prevent the unit from rolling or falling. See HOW TO PUT THE LIFT TRUCK ON BLOCKS in the Operating Manual or the Periodic Maintenance Section". Users are also told to "Use the correct tools for the job".

Mr Wilson's own report stated that the correct method of work would have been to use the serrated edge of the hydraulic jack to raise the rear of the forklift, to place at least two fixed supports to sustain the weight of the truck (either at the rear axle or the wheels), lower and remove the jack, carry out

the work and then reverse the procedure. He had also been referred during Miss Forrest's cross examination to the Hyster Operating Manual (Production 1 for Nacco), which sets out what he said he would class as "the correct method of work" and in fact goes even further by recommending the chocking of the front tyres also (the purpose of this being to prevent the truck from rolling should the handbrake fail). He had said that this was something that he should probably have added to his comments regarding the correct system of work.

Mr Wilson had also agreed during cross examination by Miss Forrest that the system of work adopted by the deceased was not as recommended by the manufacturers.

In Miss Forrest's submission Nacco, as manufacturers, had issued guidance on the system of work that ought to be employed. However, she maintained that it is just that, guidance, and that it is for the employers and not the manufacturers to devise and implement a safe system of work for their employees to follow.

In her submission the guidance that was provided by Nacco was appropriate - how such guidance is applied is a matter to be determined by the employers, and it was for the Court to determine whether the system that the employers had in place was sufficient. In her submission there was no requirement for Nacco, as manufacturers, to change the guidance issued by them.

In summary Miss Forrest submitted that I should make no recommendations which impinge upon Nacco, who had provided adequate guidance which is designed to be used and implemented by experienced technicians on the basis of the systems of work designed and implemented by their employers in accordance with the manufacturers' recommendations. In her submission there was nothing more which Nacco, as manufacturers, could have done beyond what they already had done, to prevent this tragic accident having occurred.

Miss Forrest adopted the submission for the Crown that a “formal” determination should be made in terms of Section 6 of the Act.

Submissions for RHI Refractories UK Limited, the owners of the premises where the accident leading to the death took place

Mr Wade began by expressing RHI’s condolences to the family of Mr. Czernik. Mr. Czernik, he said, was known to many of the employees of RHI and was regarded, correctly, as a skilled, responsible and likeable man. The family had manifestly conducted themselves with dignity throughout the Inquiry.

Mr Wade said that he was taking no significant issue with anything said on behalf of the Crown or DPG (he having been made aware in advance of their submissions).

He went on to set out the background circumstances of the accident. Those circumstances are dealt with in my narrative above of the facts of the matter in so far as agreed or not in dispute.

Mr Wade then turned to the issue of the precise method of refitting a starter motor on a truck such as the one in question, which had been the subject of some conflict in the evidence. Most witnesses had given evidence that the easy way of doing it would be to jack up the rear of the truck a few inches. This would give sufficient clearance physically to put the starter motor into position. From a health and safety perspective it would be acceptable to use the jack only at this stage, provided it was only the fitter’s arm which was under the vehicle (on the basis that if the jack were to jump out there would be sufficient clearance to prevent injury).

Some evidence had, said Mr Wade, indicated that it was easier or necessary to put one’s whole body underneath the truck.

He submitted that the most likely position was that the job could be done either way. For fitters such as Mr. Munro (and probably the deceased) regularly removing and refitting starter motors would be a task with which they would be very familiar and no doubt over the years they would have adopted a method which minimised the effort and time involved.

However, where there was no dispute whatsoever in the evidence, was that if it was required to place any part of a fitter's body below the truck (other than arms) it was absolutely necessary to block the truck up. This involved placing it on two wooden blocks or metal axle stands. The process did not involve the continued use of the jack. Every single witness qualified to opine on the matter had been emphatic that he would not go under a vehicle which was not properly blocked. There was an eloquent warning sign on the jack to that effect.

Moreover, said Mr Wade, the witnesses had regarded it as inconceivable that the deceased would not have been aware of this procedure. Indeed the witnesses had indicated that the deceased (who was 57) was the type of person who, if he observed someone failing to follow a safe procedure, would do something about it.

Mr Wade maintained that what the deceased had actually done was to use a single block which he had positioned below the nearside sill. He had then used a hydraulic jack. The bearing surface of the jack had been on the angled part of the counter-weight. He then had gone under the forklift truck. Precisely what he was doing is not known. After the incident the starter motor had been found on a ledge, ready to be positioned (but not positioned).

At the material time the weight of the rear part of the truck was wholly or substantially resting on the jack. The jack point was not being used in its correct mode (with the serrated surface in touch with the metal of the truck). Rather it was in the mode normally used for lifting at a jack point. This would have reduced 'metal to metal' contact and rendered the possibility of the jack slipping all the greater. While the deceased was under the truck the jack

jumped out. The two front wheels remained on the ground. The rear nearside of the vehicle came to rest fully on the wood block. The offside of the vehicle, under which the deceased was working, was left unsupported. As a result of the deceased's position he was crushed to death.

Mr Wade said that a great deal of time during the Inquiry had been taken up in attempting to establish or explore exactly what the deceased was doing at the time. As Mr. Wilson had pointed out, there were mysteries. If the deceased had intended to replace the starter motor by reaching with his arm under the truck, and if he had happened to notice some other defect in the truck and had decided to investigate, that would not really be consistent with what he had done. It did not explain why he would put one block of wood on one side only. If he had always intended to go under the vehicle, why had he not used two blocks?

In a sense, in Mr Wade's submission, the precise task which the deceased was engaged on at the time of the accident did not directly matter because the evidence had been clear that if one is going to work underneath such a vehicle it must be blocked and there should be no dependence on the jack. Indeed the jack should be removed from the area.

With regard to RHI's involvement in the matter, Mr Wade turned to the suggestions made in evidence that the presence of graphite on the floor may have had some effect on the occurrence of the accident.

There were, he said, six separate submissions to be made of behalf of RHI in connection with that matter.

1. That the presence of graphite was inevitable having regard to the processes carried out in RHI's premises.
2. That the presence of graphite was obvious and was known to Mr. Munro and to the deceased.

3. That the presence of graphite had not rendered the place where the accident occurred unsafe or unsuitable for the repair work in question if a safe system of work was carried out. Mr Wade referred to the Hyster manual (Production 1 for Hyster) and to Crown production 18 (Technical Gram). Both describe the appropriate surface for carrying out repairs as being “level, solid and even”.
4. That in any event RHI had taken all reasonably practicable measures to keep the floor free of graphite. Mr Wade referred to the unchallenged evidence of the HSE Officer, Mr. Buchanan.
5. That the method of tackling the repair had been exclusively a matter for the deceased. If he had considered that the presence of graphite in any way compromised the safety of the operation he could have made a request, which would have been implemented, for the truck to be towed to another position. All the evidence had suggested that the deceased would have had no hesitation about making such a request, nor RHI about fulfilling it.
6. That in any event there had been no evidence to suggest that the presence of graphite had had any causative effect on the occurrence of the accident. Mr Wade referred to the evidence of the two HSE officers who had witnessed a jack “jumping out” in similar circumstances on a concrete floor which was not contaminated with graphite.

As far as the determination to be made was concerned, Mr Wade said that no objection was taken to the Crown’s invitation to me to make a “formal” determination.

He submitted, however, that the Court should go further and make a determination under Section 6(1)(c) of the Act to the effect that a reasonable precaution which may have avoided this accident would have been the deceased blocking the forklift truck on both sides.

Submissions for Douglas Gillespie Plant Limited, the employers of the deceased

Mr Moore began by expressing his clients' condolences to the family of Anthony Czernik.

He informed me that DGP were content that there be a formal determination under Sections 6 (1)(a) and (b) of the Act with regard to the date, time, place and cause of death, on the basis that these facts had been established, and the evidence on these matters had not been controversial.

On behalf of DGP he proposed a further finding under Section 6(1)(c) of the Act in the following terms:-

"The death of the deceased might have been avoided if he had taken the precaution of supporting the forklift truck by means other than the hydraulic jack while he worked underneath it. Such a precaution would have been reasonable in the circumstances."

Mr Moore went on to say that DGP did not accept that there was any basis for the submission on behalf of the family of the deceased that there was any defect in their system of working which contributed to the death, and contended that the submissions to that effect ignored the evidence.

He submitted that the evidence had established that the deceased had been both aware of the requirement to "block" the forklift truck before working underneath it and that there was an ample supply of adequate blocks available to him for this purpose.

With regard to the suggestion that there had been no proper risk assessment, Mr Moore referred to Crown Production 12, a Safety Method Statement prepared and issued by DGP and spoken to by the Service Manager, Robert Herd.

With regard to the submission that suitable blocks were not available to the employees of DGP, Mr Moore referred to the evidence given by Mr. Herd in relation to the availability of suitable blocks within the workshop. Evidence to the same effect had, he said, been given by the employees, Munro and McLean. Further the HSE Inspector, Mr. Buchanan, had given evidence that he had visited the premises of DGP after the accident and had satisfied himself that blocks were available in the workshop and were also present in vans used by DGP employees.

With reference to the submission to be made on behalf of the family of the deceased to the effect that “blocks should have been supports of the type as shown for example in Crown Production 19 used by Barlow World or of similar style and specification”, Mr Moore submitted that there had been no evidence which would justify such a finding.

Further, he said, there was no basis for the submission that the blocking equipment made available by DGP consisted of “random pieces” of soft wood, sourced on an *ad hoc* basis via a fellow employee. The evidence had been that the fellow employee (Mr. Munro) was not the main source of the blocks and that there were a large number of blocks kept within the workshop. Mr. McLean had given evidence that there were 40 or 50 blocks within the workshop. A number of employees, including Mr. Munro, sourced their own blocks, either direct or through Mr. Munro, as a matter of personal preference or convenience. There had been no evidence to the effect that this procedure was in any way unsafe or unsatisfactory.

In Mr Moore's submission, the evidence had been clear in establishing that the deceased was a highly experienced and competent engineer and that it was inconceivable that he was not aware of the requirement to support the forklift truck adequately before working underneath it. All of the witnesses who had given evidence on this matter had confirmed that this was a basic safety step known to all service engineers, having been part of their training from the outset.

Mr Moore maintained that no satisfactory explanation had been provided to the Inquiry as to why the deceased had decided to place the upper part of his body under the forklift truck when it appears to have been supported only by a hydraulic jack a piece of wood (label 13). None of the witnesses had considered the piece of wood adequate for use as a block. Nor had there been any explanation as to why the deceased had chosen to place label 13 in a position where it supported the truck at the opposite side from the side where he was working. The witnesses had been unanimous in describing this method of supporting the truck as inadequate and dangerous.

Mr Moore submitted that the criticisms of the HSE investigations advanced on behalf of the family of the deceased were without merit and, in any event, irrelevant to the matters which had been established by clear evidence.

In his submission there had been no evidence to suggest that the deceased had required to complete the repair by replacing the starter motor on the day of the accident. Indeed, the evidence had suggested that he was not expected to do anything other than take the starter motor to Prolec for repair. This, he said, may explain why he had left DGP's premises without taking sufficient blocks from the workshop with him in his van. In any event, evidence had been given by a number of witnesses, including the employee of DGP who had removed the same starter motor, that it was unnecessary to block up the forklift truck to remove or replace a starter motor.

Mr Moore submitted that the submission on behalf of the family of the deceased that Mr. Munro's evidence on this matter should be treated with "extreme caution" was without any merit whatsoever.

He went on to say that it was obvious that the deceased must have considered that there was some reason to place the upper part of his body under the forklift truck. What that reason was will never be known. Further, it will never be known why, having chosen to place his body under the forklift truck, he did so when it was not supported by means of blocks or other

adequate forms of support. Nor will it ever be known why, when there was a block of wood which was available to provide some support for the forklift truck, the deceased chose to place it on the opposite side of the truck from which he was working. The evidence, said Mr Moore, had been clear in establishing that had he placed it under the side of the truck where he was working it would probably have saved his life.

Discussion

The purpose of a Fatal Accident Inquiry is not to establish fault on the part of any person (including the deceased), or any criminal or civil liability, in respect of the death in question. Those are matters for other proceedings. The Act therefore provides that the determination of the Sheriff in a Fatal Accident Inquiry may not be admitted in evidence or be founded upon in any judicial proceedings of whatever nature (including criminal proceedings or civil litigation in connection with the death in question).

Rather it is the purpose of the Inquiry to establish certain facts, in public and within the parameters of section 6(1) of the Act, so that those with a legitimate interest, in particular the relatives of the deceased, might be informed as to the cause of death. An Inquiry must also try to ascertain, in the public interest, whether there were any reasonable precautions which might have been taken, which might have prevented the death and any accident leading to it, or whether there were any defects in any system of working which contributed to the death or the accident. The Sheriff may, in his determination, make comment, and sometimes will make recommendations, in respect of such precautions or defects, or in respect of any other facts or matters which are relevant to the circumstances of the death, with a view to similar accidents and deaths being avoided in the future.

Section 6(1) provides that the Sheriff is to set out in his determination, in so far as established in evidence to his satisfaction, the following circumstances of the death:

- (a) When and where 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 defect, if any, in any system of working which 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.

As I have said above, the matters to be addressed under sections 6(1)(a) (b) and (c) of the Act were all matters in respect of which the evidence was clear and there was no dispute or issue, and I have made appropriate determinations in respect of these matters in accordance with that evidence.

I will turn now to the various issues raised at the Inquiry, which I have set out above.

I will deal first with the factual issues, in respect of which Mr Santoni did not invite me to make any particular determinations, as follows:

- 1. Whether it was necessary for Anthony Czernik to position part of his body, as opposed to simply inserting his arm alone, under the truck either to install the starter motor, or to inspect ring gear.**
There was conflicting evidence as to whether the installation of the starter motor on a forklift truck such as the one on which Anthony Czernik was working could be carried out only from above, the starter motor having first been placed either on the ground under its intended position, or near to that position on the structure of the truck, by way of the engineer so placing it by inserting it with his arm under the side of the truck. In particular, Mr Downes, a technical support person at Barloworld Handling Ltd, the suppliers of the truck in question to DGP, gave evidence that this operation can be carried out either from above

or below, but was easier from below. It was his evidence that he would carry out the operation from below having first jacked the truck up and placed it on blocks. It was clear from the evidence that, whether the work was done from above or below, the truck would require to be jacked up, at least to some extent, because there is insufficient clearance beneath the sill of the truck to insert the starter motor from the side. It is not practicable to insert the starter motor from above, because that would entail dismantling other parts of the engine, particular the exhaust manifold. On the other hand there was evidence, in particular from Craig Munro and Ian McLean, that the preferred method of fitting a starter motor to this type of truck would be to jack the truck up a few inches, place the starter motor on the ground or on the chassis of the truck, directly beneath where it is to be affixed to the engine, by reaching in with it from the side, under the sill, and thereafter to reach down from above, pick the starter motor up and bolt it to the engine. Both gave evidence that the starter motor could be placed under the truck with one's arm only, and without inserting any other part of the body under the truck. Their evidence was supported by the evidence of Mr Buchanan, one of the Health and Safety Executive inspectors who gave evidence, with reference to Crown Production 15, a letter from him to the Procurator Fiscal of 4th March 2009, which states that there is no requirement, during the course of fitting the starter motor, to insert under the truck anything other than the one's arm. Mr Buchanan had had a demonstration from Craig Munro of how the starter motor is removed and refitted. Their evidence was also supported by that of Mr Herd, the service manager at DGP. I found the evidence of Craig Munro and Ian McLean on all of this persuasive. They were engineers who regularly carried out this task. Craig Munro gave a detailed evidence of exactly how he removed and later replaced the starter motor. I preferred their evidence to that of Mr Downes. It was explained in evidence that one reason a starter motor might fail, would be damage to the ring gear with which the starter motor engages. I understand the ring gear to be teeth around the circumference of the flywheel in the engine of the truck. Corresponding

teeth on the revolving arm of the starter motor engage with the teeth on the flywheel, so that when the starter motor is activated it turns the flywheel, to start the engine. The CCTV footage covering the time of the accident tends to show that Anthony Czernik was engaged at the truck for some time, and the question arose as to what he might have been doing, which would have required him to position his head and upper torso under the truck. As I understood Mr Santoni in his cross examination, he was suggesting to witnesses that one thing Anthony Czernik may have been doing was checking the ring gear for damage. It was the evidence of Mr Downes that the preferred method of inspecting the ring gear would be from underneath the truck. He gave evidence that that is how he would do it, and that there is a restricted view from above. He said however, that he could be wrong, having not examined the ring gear in such a truck for four years. Craig Munro, however, gave evidence that he had shown the Health and Safety Inspectors how the ring gear is checked from the top. He himself had checked the ring gear from the top and found it to be undamaged. It was his evidence that there was no reason for Anthony Czernik to go under the truck to examine the ring gear. Craig Munro was supported in his evidence by that of Mr Buchanan, who confirmed in his said letter to the Procurator Fiscal that checking for damage to the flywheel cannot be carried out from beneath the truck, since it can only be viewed from the top. Again I found the evidence of Craig Munro on this matter compelling, and preferred his evidence to that of Mr Downes. I was therefore satisfied on the evidence that neither the operation of replacing the starter motor, nor that of inspecting the ring gear, made it necessary for Anthony Czernik to place his head and upper torso beneath the truck.

2. **Whether the jack used by Anthony Czernik to raise the forklift truck was being used in the correct mode.** There was evidence, again which was not in dispute, that the end of the lifting arm of the jack could be used in one of two positions. In one position it had a serrated face, which would be used against a flat surface of the vehicle

being lifted. In the other position it was shaped so as to fit around a narrow part of the vehicle, perhaps a jacking point. All the evidence in this case suggested that the jack was used against the flat (or almost flat) surface of the counterweight of the truck, and it seemed to be accepted by witnesses that the end of the lifting arm of the jack should have been in the first of these positions. However, there is a photograph of the jack taken sometime after the accident, which shows the end of the lifting arm being in the other position. It has been suggested that the jack was used with the end of the lifting arm in that other position. However there was evidence, which I accepted, that the end of the lifting arm simply flips from one position to the other. It seems clear that when the truck fell, the jack was ejected some distance from the truck. It was thereafter moved further away by one of the first people on the scene (and before any photograph was taken). I am therefore not satisfied that it should be concluded that the jack was in fact used with the end of the lifting arm in the incorrect position. Between the time the jack was ejected and the time the photograph was taken it is in my view quite possible that the end of the lifting arm was flipped from one position to the other – for example when the jack was ejected, and thrown some distance from the back of the truck, or inadvertently by the person picking the jack up to move it. There was no direct evidence that the jack had in fact been used with the end of the lifting arm in the wrong position. Accordingly, I do not think it would be right to make any determination to the effect that incorrect use of the jack in respect of positioning of the end of the lifting arm had contributed to the accident.

3. **Whether the presence of graphite dust on the floor contributed to the accident, in any way which would require any findings to be made in this Determination.** There was evidence, which was not challenged, to the effect that the processes carried on within the West Works at RHI's premises inevitably lead to the accumulation of graphite dust on the floor. There was also unchallenged evidence as to the regular cleaning (approximately every two hours) of the floor. There

was, however, no evidence as to exactly when the floor had last been cleaned before the broken down forklift truck was moved to its eventual position within the West Works. Andrew Inglis, janitor at RHI, gave unchallenged evidence, which I accepted, that the floor had been cleaned once on the morning of the accident, by which time the forklift truck was already in the position it was in when the accident occurred. He explained that he had cleaned right up to the sides of the truck, but not underneath it. It was accordingly not clear whether the part of the floor where Anthony Czernik positioned the jack to raise the truck had been cleaned that morning. There was, however, no evidence to suggest that graphite dust present there at the time of the accident was to any extent the result of a failure in a system of work on the part of RHI. There was also evidence, which was, as I recall, again unchallenged, that engineers employed by DGP were required to carry out their own assessment of the safety of the place where repairs to vehicles were to be carried out, and if an engineer felt that the place was unsafe, to request the removal of the vehicle in question to a safe place. It was Craig Munro's evidence that, in the case of RHI, had he or Anthony Czernik felt that the forklift truck upon which they were working was not in a safe place, there would have been no difficulty in asking RHI to move it, and no difficulty on the part of RHI in doing so, given the presence on their premises of other forklift trucks (one of which could be used to move the truck in question). The evidence from the witnesses, both expert and otherwise, was generally to the effect that the presence of graphite dust on the floor made the floor more slippery than it would otherwise have been. Some attempts were made in evidence to quantify the difference in the coefficient of friction between a floor without graphite dust, and the floor with graphite dust on it. Logically, it seems to me that because the graphite dust made the floor more slippery, the jack which Anthony Czernik used to raise the forklift truck might have been easier to dislodge, by way of some lateral force (and there was evidence, which I accepted, that some measure of lateral force would have been necessary), than if there had been no graphite dust on the floor. However, it seems clear that had the truck

been blocked up, as it undoubtedly should have been if Anthony Czernik was going to place his head and upper body beneath it, the presence of graphite dust would not have played any part whatsoever. It therefore seems to me that it would not be right to make any determination that there was some reasonable precaution in respect of the graphite dust which should have been taken, and which might have resulted in Anthony Czernik's death being avoided. Nor would it, in my opinion, be right to determine that in respect of the presence of graphite dust there had been a failure in any system of work which contributed to the accident, given the unchallenged evidence as to regular cleaning of the floor, and the absence of any evidence that there was any such failure.

4. **Whether there was some emergency or pressing need for the starter motor to be replaced so quickly that Anthony Czernik ignored the usual safety procedures of blocking the forklift truck up (and not relying on a jack alone), before placing his upper body beneath the forklift truck.** It was not in dispute that the responsibility for carrying out repairs to forklift trucks hired to customers by DGP fell upon DGP, and that (according to Robert Herd), in the event that a truck could not be repaired in accordance with DGP's Conditions of Hire (as contained in the copy Hire Contract which was produced) DGP would ultimately require to provide a replacement forklift truck. Mr Lang, Maintenance Manager at RHI, gave evidence that he had checked with his production personnel, and that there would have been no need for a replacement forklift truck if the one in question had been repaired on the Monday (the accident having occurred on the Friday). There was evidence from Mr McPherson, retired managing director of Prolec, that Anthony Czernik had told them that the repair to the starter motor was urgent, and that, the repair having been done on the same day on which the motor was taken to Prolec, Anthony Czernik thanked him for "getting him out of a hole". However, there was, as I recall it, no other evidence to suggest that this repair was of particular urgency. Indeed, it was Craig Munro's

evidence, which I accepted, that he expected Anthony Czernik only to take the starter motor, which he, Craig Munro, had already removed, to Prolec for repair. Craig Munro expected to re-fit the starter motor himself three days later. It was clear, and not in dispute, that Anthony Czernik was a very experienced engineer, who was careful to the extent of berating others about unsafe working practices, and certainly knew that it was dangerous and unacceptable, when placing one's head and upper body under a forklift truck, to rely on a jack alone, without blocking the truck up. Whatever reason Anthony Czernik had for telling Mr MacPherson that the repair was urgent, I am of the view that the evidence discloses no more than general urgency, in the sense that DGP would wish to carry out the repair in accordance with its contract terms, that is to say as quickly as reasonably possible. There was no evidence that Anthony Czernik was informed that this repair was of particular urgency, and I am not able to conclude on the evidence which I heard that the reason he did not follow the usual safety procedures, of which he was undoubtedly aware, was that this repair was to be regarded as some sort of emergency repair. Although Prolec managed to repair the starter motor during the course of the morning on which Anthony Czernik took it to them, I think it was clear from the evidence that that was not expected, and that the starter motor may well not have been available for refitting until the following Monday. Even if Anthony Czernik thought that there was a degree of urgency, and for some reason decided that he needed to work underneath the truck, it seems to me that there would have been nothing to prevent him (if he did not have suitable blocks with him in his van) from returning to DGP's premises to collect blocks to block up the forklift truck. I will deal below in more detail with the availability to engineers employed by DGP of such blocks, but will say now that I was satisfied on the evidence that there were kept in DGP's workshop a number of wooden blocks, of various sizes, which were available to their engineers for the purpose of blocking up vehicles before working beneath them.

I will now deal with the issues raised by Mr Santoni, in respect of which he invited me to make certain determinations under sections 6(1)(d) and (e) of the Act, as follows:

- 1. Whether suitable blocks for blocking forklift trucks up after they had been jacked to a sufficient height to enable an engineer to work underneath them, and for chocking any wheels of the truck remaining on the ground, were or should have been provided to Anthony Czernik and other employees by DGP, and whether such blocks should have been of a uniform specification, and in particular, similar in style and specification to those shown in Crown Production 19 (photographs of blocks used by Barloworld Handling, the suppliers of the forklift truck in question).** There was a considerable amount of evidence, particularly from Robert Herd, Craig Munro, Iain McLean, and Norman Buchanan, one of the Health and Safety inspectors who gave evidence, as to the availability of blocks for blocking up vehicles when work required to be carried out underneath them. There was evidence, which I accepted, to the effect that there was available at DGP's premises a large number (around 40 or 50) of blocks, of various sizes and shapes, some made of wood, and others of metal or plastic, including chocks for wheels. The evidence was that the engineers employed by DGP, relying on their qualifications, training and experience, would select whichever blocks were suitable for the particular job to be carried out, and that engineers who routinely worked away from DGP's workshop carried a selection of blocks in their vans. Whilst none of these blocks (with the exception of the small block apparently used by Anthony Czernik on the day in question) was produced, and whilst no details were given in evidence of the actual sizes or specifications of these blocks, I think it is to be inferred from the evidence given by these witnesses, that they regarded the blocks which were available as suitable. It was clear from the evidence that the van used by Anthony Czernik on the day in question did not contain any blocks. The fact that (as I have found above) the operation of replacing the starter motor in the forklift truck

would not have required him to block the truck, perhaps explains why he went to the premises of RHI without blocks. As to the suggestion that the blocks provided, and indeed used, should have been of a uniform specification, I am of the view that the evidence does not support that. It seems to me clear from the evidence that the blocks required to be of different sizes and shapes, in order to be suitable for use with different types of vehicle, and for different operations being carried out on the vehicles concerned. Whilst there was no suggestion that the metal blocks now used by Barloworld were not suitable for blocking a forklift trucks, there was at least some evidence, particularly from Mr McLean and Mr Buchanan, that in some respects wood was preferable as a material. In any event, there was no evidence that the blocks provided by DGP, or those provided by their engineers for their own use, were in fact unsuitable. I am therefore of the view that the finding Mr Santoni invited me to make simply cannot be made. Further, there was no suggestion in evidence that the accident leading to Anthony Czernik's death was in any way due to the unsuitability or inadequacy of blocks provided by his employers. It was due to the fact that he placed his head and upper body beneath the forklift truck, relying on the jack alone, and without blocking it properly. The block which Anthony Czernik apparently used (a small block measuring about 9.75 inches in length, placed, inexplicably, at the opposite side of the truck from the one on which he was working, and therefore providing him with no protection), was not regarded by the witnesses as suitable for supporting a truck such as the one in question (although on testing it did in fact support sufficient weight). It was not suggested in evidence that that block was a block provided by DGP for the purposes of supporting vehicles being worked on from underneath. Mr Herd give evidence that he had no idea why Anthony Czernik would have used something like that block. For these reasons too, I am of the view that the finding sought by Mr Santoni cannot be made.

- 2. Whether DGP, as employers, should have "audited" blocking equipment carried by their engineers in their vehicles, and not**

allowed employees to carry out work under the forklift trucks unless such blocking equipment was available. I hope I have not misunderstood what was meant by Mister Santoni when he used the word "audited". I assume that he was intending to suggest that there should have been some periodic checks carried out on the engineers' vehicles, to see that blocks were being carried by them. There was evidence, which I accepted, that checks by DGP were carried out on the tools carried in the vans driven by their engineers, at least annually. It is my recollection that Mr Herd said that such checks would not include a check on blocks. I formed the impression that that was because the various engineers would have different requirements as far as blocks were concerned, depending on the types of vehicles upon which they would be working from time to time, and on the various operations they would be carrying out, and also because the engineers, relying upon their training and experience, and being qualified engineers, were expected to carry suitable blocks with them when necessary. As far as not allowing employees to carry out work under forklift trucks unless blocking equipment was available is concerned, I am quite satisfied on the evidence that the engineers employed by DGP, and Anthony Czernik in particular, were required by DGP not to work under vehicles unless they were properly blocked, particularly if they were doing so when changing starter motors (although, as I have said, I was also satisfied that it is not necessary to place one's head and upper body under the sort of truck in question, a Hyster truck, when changing the starter motor, and therefore that it is not necessary to block the truck). There was evidence, which I accepted, that all engineers were provided by DGP with a Risk Assessment Manual, which they were required to read, and indeed to confirm in writing that they had done so. I also accepted evidence that the manual is updated from time to time, and that engineers are required to read and sign for updates, and place them in their own copies of the Manual. The manual includes a substantial number of Safety Method Statements, including one (Crown production 12), which addresses the removal and refitting of starter motors. The evidence

was that that, and other, safety methods statements provided to the engineers employed by DGP required the engineers to follow the recommendations of the manufacturer of the vehicle in question. The manual for Hyster trucks, which was produced, contains clear instructions for raising and blocking a truck such as the one in question. I also accepted evidence that the engineers had available to them the manuals provided by the manufacturers of the various vehicles upon which they would require to work, and that the jacks with which they were provided had a notice on them instructing the operator not to rely on the jack alone. In addition there was evidence from a number of witnesses, which evidence was not challenged, and which evidence I accepted, that all engineers, including Anthony Czernik, are made well aware during their training that they must not work underneath vehicles which are supported by a jack alone, and are not properly blocked. Anthony Czernik was described as a very competent and careful engineer, who would take others to task for not following proper safety procedures. I was entirely satisfied on the evidence that he was well aware of the requirement to ensure that a truck was properly supported by suitable blocks before working underneath it. I was also satisfied that DGP relied on the training and experience of their engineers to cause them to select and use appropriate blocks to support trucks before going underneath them. The reliance by DGP on the training and experience of their engineers was not criticised by any witness. I have therefore concluded that the evidence does not support a finding that any defect in a system of working operated by DGP in respect of not allowing their employees, and Anthony Czernik in particular, to work under forklift trucks without blocking, contributed to Anthony Czernik's death, or the accident leading to his death.

3. **Whether the blocking equipment actually available to employees of DGP was inadequate, inappropriate, and "incapable of any proper form of audit, inventory or risk assessment".** Whilst none of the blocks available from DGP, nor indeed any other blocks used by their employees, were produced, there was no evidence that such

blocking equipment was inadequate or inappropriate. Nor was there evidence that it was incapable of audit, inventory or risk assessment. As I have said, I was satisfied that DGP relied on the training and experience of their engineers in selecting blocks which were suitable for lifting the vehicle being worked on, and for the task being undertaken. Because of the variety of types of vehicle, and tasks to be undertaken, it is my understanding from the evidence that engineers would not carry in their vans every size and shape of block which they might conceivably need. If an engineer did not have in his van blocks which were suitable for the job at hand, he would be able to obtain the necessary blocks from DGP's workshop. "Audit" of blocks carried in engineers' vans might therefore not be a useful exercise. Whilst there was evidence that some blocks were obtained by Craig Munro from a customer at whose premises he worked (a sawmill), and that some other employees would ask him to obtain blocks for them, it did not seem to me that the available blocking equipment consisted, as suggested by Mr Santoni, of random pieces of softwood, sourced on an *ad hoc* basis. The fact that some blocks may have been obtained by Craig Munro, either for his employers, or for himself or other engineers, does not mean that the blocks obtained were unsuitable, and there was no evidence that they were, and no criticism from any witness of the fact that some blocks were obtained by him. In any event it was not suggested in evidence that the accident leading to Anthony Czernik's death was due to inadequacy or unsuitability of blocks provided by DGP, or to any inability of those blocks to be audited, inventoried, or subjected to risk assessment. I am therefore again of the view that the evidence does not support the finding sought by Mr Santoni.

4. **Whether there was a proper risk assessment by DGP, as employers, into the equipment used by its employees for blocking forklift trucks when working underneath them, including a risk assessment of the minimum height at which work could safely be carried out.** Again I would have to say that there was no suggestion in the evidence that this accident was contributed to by a defect in a

system of work operated by DGP in relation to a risk assessment in respect of the blocking equipment used by its engineers – it was due to no such blocking equipment having been used at all. In any event there was evidence, with reference to the Risk Assessment Manual provided by DGP to its employees, and in particular to various safety method statements in it, that DGP's engineers were made aware of the requirement to have blocks for supporting trucks when carrying out certain engineering tasks on them. There was also evidence from some witnesses that DGP's engineers were required, using their training and experience, to carry out their own risk assessments. That evidence was not criticised by other witnesses, in particular the witnesses from the Health and Safety Executive. The engineers were expected to have the training and experience necessary to assess the suitability of blocks selected by them for particular operations on particular trucks. As to assessment of the safe minimum height at which work under a truck could be carried out, whilst Mr Wilson of the Health and Safety Executive gave evidence about British Standard BS EN 349: 1993 Safety of machinery, he clearly stated that the minimum heights stated therein for working under machinery applied to moving machinery. There was as I understand it no reference to any minimum height for static machinery, such as the forklift truck in this case. It is my understanding of Mr Wilson's evidence that in respect of static machinery lower heights may be used. He referred to a person being able to "wiggle under". It seemed to me that the thrust of his evidence was that whilst there may be standard safe minimum heights for working under moving machinery, in the case of static machinery it is a question of raising the machinery to a sufficient height to enable the person working on it physically to get underneath and carry out the task at hand, the issue being not one of safety (assuming the machinery, in this case the truck, is properly supported on blocks), but of sufficient room to enable the engineer to work. In any event it was not suggested in evidence by any witness that this accident was to any extent the result of the truck being raised to an insufficient height, or of a lack of assessment of the safety of the height to which it was raised. For these

reasons I am again of the view that the evidence does not support the finding sought.

5. **Whether there were deficiencies in the investigation carried out into the accident by the Health and Safety Executive.** Mr Santoni criticised the investigation in several respects, for example in respect of the inspectors' failure to realise initially that the Hyster forklift truck in question has a floating axle, and that the small block of wood was positioned under the sill and not the axle, in respect of the lack of any measurements of the height to which the jack had been raised before the accident, in respect of the lack of investigation into what Anthony Czernik was doing under the truck beyond attending to replacement of the starter motor (on the basis that to replace the starter motor he would have had to insert his arm only), and in respect that the inspectors had not examined and reported on the adequacy of the blocks made available by DGP to its engineers, or otherwise used by them. Whilst, without expressing any concluded view on the matter, it may be that the Health and Safety personnel investigating this accident did not attend in such detail as might be expected to at least some of the matters pointed out by Mr Santoni, I am not persuaded that any deficiency in the investigation is, in terms of section 6(1)(e) of the Act, relevant to the circumstances of Anthony Czernik's death. For example, even had it been ascertained by investigation that he had discovered a defect in the truck unconnected with the starter motor, which required him to go under the truck to attend to it, the knowledge of what that defect was would, in my opinion, not lead to a conclusion which differs from the undisputed conclusion that the accident was due to Anthony Czernik positioning his head and upper body under the truck whilst it was not properly supported, whatever the reason for his going under the truck. For these reasons I am of the view that the finding sought by Mr Santoni under section 6(1)(e) is not one which can properly be made.

It was not suggested by anyone that I should make any determination under section 6(1)(d) of the Act that there was a defect in any system of work operated by any party appearing at the Inquiry other than DGP which contributed to the accident or Anthony Czernik's death. I have already made some comment in respect of the condition of the floor in the West Works at RHI's premises. There was no evidence of any defect in any system of work as far as the manufacturers of the truck in question are concerned. I agree with Miss Forrest that the evidence tended to show that they had, in providing manuals for the trucks manufactured by them, which included safety information, in particular in respect of safe methods of supporting raised trucks when working beneath them, done all that they reasonably could. I have therefore made no such determination.

I have, however, made a determination under section 6(1)(e) of the Act in respect of the need, when raising a forklift truck at one end, with the wheels at the other end remaining on the ground, to chock those wheels. There was evidence, which I accepted, that when raising a truck at one end, there is a risk that the wheels at the other end might move due to the resultant force placed upon them, thus destabilising the jack, or fixed supports. The evidence was that it is necessary to address that risk not only by engaging the handbrake of the machine, but also by placing chocks under the wheels, so as not to rely solely on the handbrake, in case the handbrake fails, or fails to operate properly. That precaution would obviously apply where, for example the machine is being raised only to slide a starter motor to be replaced under the side of the machine with one's arm only, and a jack is used without blocks. I think it is clear that in this case no such chocks were used by Anthony Czernik. Whilst there was no suggestion in the evidence that the accident in this case was caused to any extent by the wheels which remained in contact with the ground moving (the handbrake was tested and found to be in proper working order), the fact that chocks were not used is, in my view relevant to the circumstances of Anthony Czernik's death, and I have accordingly made an appropriate determination under section 6(1)(e), rather than under section 6(1)(c).

I should say that I do not agree with Mr Santoni's suggestion that (using his own words) "this is a case in which it seems to have been assumed that it was all too easy to blame the dead because they cannot answer back". It was my impression of all the witnesses that they were being careful to stick to the facts of the matter and not to express opinions of blame, beyond giving evidence, which they had to do, that Anthony Czernik clearly was aware of the dangers of going under a truck which was not blocked up, relying only on the jack. The witnesses, in various ways, all concluded that his decision to do so, where the reason for his taking that decision was not known, was simply inexplicable.

I respectfully agree with their assessment in that respect -- it simply cannot be explained why an engineer of Anthony Czernik's training and experience, who had a reputation for taking proper care (and indeed taking others to task for not doing so), would place his head and upper body under a truck which was not properly supported, relying on a jack alone, nor why he would place the small block of wood under the side of the truck opposite to the one under which he was apparently working, so that it could not possibly afford him any protection. Sadly, it seems that the reason will now never be known.

I would like to conclude by thanking those who appeared at the Inquiry for the helpful way in which they presented the evidence, and made submissions, and to express my and the Court's condolences to the family and friends of Anthony Czernik.