CHAPTER 17 The families of the men

Introduction

1. Many people were affected by the Pike River tragedy, and none more so than the families and friends of the 29 men. Some filed witness statements detailing concerns about the search and rescue operation and seven family members appeared before the commission. This chapter reviews the initial contact with family members following the explosion, the conduct of family briefings, and the manner and extent to which the families were kept informed of subsequent developments.

Initial contact with family members

- 2. After the explosion Pike needed to establish who remained underground. As discussed in Chapter 16, 'Search, rescue and recovery', there were problems with both the placement and removal of tags from the tag board.
- 3. At 4:40pm the police communications centre was told that 25 to 30 people remained in the mine. At 5:55pm Douglas White told police officers that 33 men were thought to be underground. At 6:00pm a count of the tags on the board indicated that 32 men were in the mine. At 7:30pm Peter Whittall told the media he understood 27 men were underground 15 Pike employees and 12 contractors. By 4:30am on 20 November that number had been revised to 29 missing. This figure was further revised to 28 a few hours later, and then at an 8:00am media briefing Mr Whittall confirmed the correct numbers; 29 men were missing underground 16 Pike employees and 13 contractors.
- 4. Pike had required its employees and contractors to supply details of next of kin who were to be contacted in the event of an emergency. The health and safety induction checklist, completed before employees and contractors began work at the mine, provided space for the contact details of one person nominated as next of kin. There was no space for alternative contacts.¹ Pike asked workers to inform it of any changes to their next of kin details.²
- 5. After the explosion, the company decided not to contact next of kin until accurate information was available. As noted, that took about 16 hours. Meanwhile, media reports of the explosion were broadcast in New Zealand and overseas as early as 5:00pm, New Zealand time. Families were immediately desperate for confirmation of the whereabouts of their men. The explosion had occurred 15 minutes before a number of workers were to finish at 4:00pm with, in some cases, a new shift ready to go underground. There was much uncertainty. Family members phoned the company and the police in search of information, but neither could give them information. By midevening the Red Cross had established a facility in Greymouth where families could register their contact details.
- 6. At 7:30am on Saturday 20 November the first family meeting was held at the welfare centre in Greymouth. This was followed by a media briefing, at which it was confirmed that 29 men were still in the mine, but names were not released.
- 7. By this time families living in the Greymouth area had sufficient information to know whether their man was missing. The failure of a worker to return home the previous night was stark confirmation of the worst. But the families had not received formal advice from the company concerning who was underground.
- 8. More distant family members were left in the dark. For example, Richard Valli, brother of Keith Valli, lived in Southland but was named as his brother's next of kin in Pike's records. On learning of the explosion, he spoke to his brother's partner, who thought that Keith had worked a day shift on 19 November. Phone calls were made to Pike, but these were either not answered or the person who answered could provide no information.

- 9. The Valli family arrived in Greymouth on Saturday towards the end of the 4:30pm family meeting. Richard Valli asked Mr Whittall to confirm whether his brother was missing. Mr Whittall could not do so. Richard Valli then asked the proprietor of the hotel where his brother stayed in Greymouth and '[h]e confirmed that Keith was on day shift and that he had left for work that [Friday] morning. This was the first confirmation he was down the mine.'³
- 10. The witness statements of other family members contained similar accounts. The families of the two Australians, two British citizens and one South African among the 29 men experienced particular difficulty in obtaining information.
- 11. Some of Pike's next of kin details were out of date, which contributed to the difficulties contacting the families.⁴ However, there were also family members correctly listed as next of kin who were never formally notified by Pike that their men were still underground.⁵

Communications with family during the rescue phase

Communication methods used

- 12. From Saturday 20 November family meetings were held each day to brief the families on developments in the search and rescue operation. Typically the meetings took place at 7:30am and 4:30pm.
- 13. There were two principal speakers at the meetings: Superintendent Gary Knowles spoke on behalf of the police and Mr Whittall on behalf of Pike. Before each meeting Mr Whittall was briefed on recent developments by company staff, particularly Messrs White and Stephen Ellis, who initially worked alternating 12-hour shifts at the mine. Commendably, a 'families first' policy applied throughout the search and rescue so that families received information before it was given to the media.
- 14. The police set up an 'e-text tree,'⁶ which was used to send messages to the cellphones of family members. These messages informed families of meeting times and significant developments. An 0800 number provided 24-hour access to the on-duty inspector, who was either Inspector Wendy Robilliard or Inspector Mark Harrison.
- 15. Some family members experienced difficulties obtaining information directly from the police in the first few days of the rescue operation because they were not listed as next of kin in Pike's records.⁷

Family meetings: were false hopes raised?

- 16. A consistent theme in the witness statements filed by the families was that they were given false hope about the chances that the men had survived the initial explosion and about the prospects of their rescue.
- 17. The flavour of what the families were told emerges from a sample of the information they were given, including comments made to the media on the evening of Friday 19 November. About 7:30pm on Friday Mr Whittall told media representatives in Wellington there was 'no evidence of fatalities at this stage',⁸ but nor had there been any communication from the men still in the mine. Later that evening, while Mr Whittall travelled to the mine, Pike chairman John Dow told the media that all the men were equipped with portable self-rescuers and knew where additional air was stored in the mine.⁹
- 18. About 5:30am on Saturday 20 November Mr Dow told the media it was possible that those underground could have made their way to the mine's safety refuge, where fresh air could be available.¹⁰ At an 8:00am media briefing meeting in Greymouth Mr Whittall said he hoped the state of the ventilation in the mine would be known by 2:00pm, so a rescue could proceed.¹¹ He referred to a compressed air line and said:

We have kept those compressors going and we are pumping fresh air into the mine somewhere so it is quite conceivable that there is a large number of men sitting around the end of that open pipe waiting and wondering why we are taking our time getting to them.¹²

19. At the morning media briefing on Sunday 21 November Superintendent Knowles said that the focus was still on a rescue operation, but the risks were too great to allow rescuers underground.¹³ One of the risks was the possibility of a fire in the mine.

- 20. Experts at the mine had debated the existence of a fire as early as Saturday. They considered a fire a real possibility, if not a likelihood. At family meetings, Mr Whittall described a possible ignition source in the mine as a 'heating'.¹⁴ By way of explanation he referred to 'smouldering rags' or a 'gas hob burning in a kitchen'.¹⁵ Generally, the tone of the information supplied at family meetings throughout the weekend conveyed that all or at least some of the missing men could still be alive.
- 21. This contrasted with what some others were told. Over the weekend Mr Ellis visited Daniel Rockhouse, who was suffering from 'survivor guilt'. He assured Daniel Rockhouse that in his view the shock wave from the first explosion would have killed the men further into the mine.¹⁶ Mr Ellis did not, however, share this with Mr Whittall, and when questioned at the commission's hearings he said this was because he also believed there was still a slim chance that some men survived until the second explosion.¹⁷ This is more likely evidence of Mr Ellis trying to help Daniel Rockhouse rather than withholding information from Mr Whittall.
- 22. At the hearings Mr Whittall was questioned about survivability. Counsel for the families drew attention to the impact of explosive forces upon men in such a small mine, the lack of oxygen without a functioning ventilation system and questioned how the men could have escaped the effects of carbon monoxide poisoning. Mr Whittall responded that Pike continued to pipe compressed air into the mine and that men could have found refuge in stubs and used brattice to create a barrier to prevent their exposure to noxious gases.¹⁸ The commission found that answer to be unduly optimistic in the circumstances.
- 23. That said, the commission does not consider Mr Whittall was dishonest about the information he supplied at family or media briefings. His state of mind was captured in an answer he gave under cross-examination with reference to the witness statements of next of kin: 'while their heads believed that the men may have gone, their hearts still wanted to hope for that miracle and I was in exactly the same position.'¹⁹
- 24. By Monday 22 November, it was recognised that the information being provided at family meetings lacked balance. That day Mr Whittall told the media that while it remained a rescue operation, 'the reality is, it's been three days. The reality is we haven't heard anything from anyone since the two guys came out of the pit. The reality is for the families now it's becoming more and more grave with every hour that goes past.'²⁰
- 25. On Tuesday 23 November Police Commissioner Howard Broad visited Greymouth. One of several matters he raised with Superintendent Knowles was the tone of communications with the families. The need for a change of approach was accepted.
- 26. The commission generally accepts the criticism made in many of the families' witness statements that the information provided at family meetings, particularly over the weekend, stimulated false hopes. Some family members had accepted the loss of their men at an early stage. They were familiar with coal mining or knew others who understood the realities of methane explosions in coal mines. But many of the families did not come from a coal mining background and relied very much on the information received during family meetings. This emphasises the need to be careful about how information is conveyed to families. A person who is emotionally involved in the events may not be the right person to act as spokesperson.

Advice of the second explosion

- 27. On Wednesday 24 November the gas levels in the mine improved and a rescue attempt by Mines Rescue Service (MRS) members was being considered. Superintendent Knowles and Mr Whittall were at the mine at the time of the second explosion at 2:37pm. After discussion, and viewing video footage, it was clear that no one could have survived the second explosion. Both men returned to Greymouth for the family meeting to be held later in the afternoon. Next of kin were sent a text message about 3:00pm: 'OPERATION PIKE there will be a significant update at the 4.30 family meeting. It is recommended that all families attend.'²¹
- 28. Superintendent Knowles and Mr Whittall met briefly in the recreation centre car park before the meeting. The Honourable Gerry Brownlee, the Minister of Energy and Resources, was also present. Mr Whittall saw it as his responsibility to tell the families about the second explosion. There were up to 500 people in the recreation centre,

including young children and a significant police contingent. Mr Whittall spoke first. He began by saying that earlier in the day the gas levels had shown improvement, and he had been called to the mine because the MRS was preparing to go in. People began to cheer and clap. Mr Whittall, Superintendent Knowles and Mr Brownlee raised their arms and motioned for silence. Then Mr Whittall told the audience of the second explosion. The reaction was one of extreme distress; people began to wail and sob. Superintendent Knowles explained that the second explosion was not survivable, so the operation had moved to a recovery phase.

- 29. Recollections differed about whether Mr Whittall or Superintendent Knowles revealed the fact of the second explosion. This is of no moment. The important point is the initial comments Mr Whittall made about a possible rescue attempt. These words were the subject of strident criticism in many of the families' witness statements. They complained that the meeting was mishandled and that the ill-chosen opening words raised the families' hopes, only to have them dashed.
- 30. The commission accepts the key announcement was mishandled, or, as one witness put it, that matters 'went horribly wrong'²² and that this caused added distress for family members. That said, the commission accepts Mr Whittall's evidence that this outcome was unforeseen and entirely unintended. He was under great pressure and, in the agony of the moment, he sought to begin on a positive note. This led to extra anguish for next of kin, but in all the circumstances, it would be unfair for the commission to criticise him.

Were there deficiencies in updating the families?

31. The witness statements filed by some family members raised concerns about the provision of information, including an apparently unreasonable delay in providing information, and claimed that in one instance the information was misleading.

CCTV recording

- 32. The first concern related to the closed-circuit television (CCTV) recording of the first explosion, taken at the portal. This was not viewed in the control room as the explosion occurred, but was retrieved later and a number of people saw the recording during the evening of 19 November. However, it was some days before this information was shared with the families.
- 33. Curiously, at the outset no one drew the existence of the recording to the attention of either Superintendent Knowles or Mr Whittall. Mr Whittall first learnt of the camera at the portal when he visited Russell Smith on 21 November. That evening he asked Mr White to obtain a copy of the recording. On 22 November, at an interagency briefing, Mr Whittall showed the recording to Superintendent Knowles. On the afternoon of 23 November Mr Whittall showed it at a family meeting.
- 34. Some family members considered they should have seen it much earlier. They felt they would then have had a better appreciation of the size of the first explosion and been more able to assess the reliability of the information they were given.
- 35. The commission understands the concern but does not find anything sinister about the delay in playing the recording. The delay was a result of the two spokespeople not becoming aware of its existence for some days. Once Mr Whittall became aware of the recording, prompt action was taken and it was soon shown to the families. Importantly, the families viewed the recording before it was shown to the media.
- 36. The second concern was whether the recording shown to the families depicted the full duration of the explosive blast recorded at the portal. The original recording showed an explosion that lasted 52 seconds. Bernard Monk told the commission his wife, Kathleen, timed the recording as it was shown by Mr Whittall at 32 seconds.
- 37. Mr Whittall said he had not sought to mislead anyone about the duration of the explosion. After his call to Mr White on 21 November, a memory stick was delivered to him in Greymouth the following day. He did not have the 'technical capability of editing a video like that,'²³ and simply used the memory stick he was given. The commission accepts Mr Whittall's evidence. Nor is there evidence to suggest that anyone else edited the recording. Danie du Preez, the communications and monitoring engineer at Pike River, provided the recording. He did not edit it.²⁴

C-ALS images

- 38. Another concern of the families related to the images taken by the Cavity Auto Scanning Laser System (C-ALS) device on 24 November at the foot of the slimline shaft. Mr Monk said that neither the families nor their counsel were made aware of the images until the inquest on 27 January 2011, and even then their potential significance was not explained. The written evidence given to the chief coroner included a one-line reference to 'evidence of a self-rescuer box open' in the fresh air base.²⁵ After the inquest, Mr Ellis arranged for Solid Energy New Zealand Ltd's John Taylor to show the C-ALS images to some family members, but this demonstration did not draw attention to the open box. As a consequence, counsel for the families, oblivious to the potential significance of the images, had already invited the chief coroner to find that the men died at, or about, the time of the first explosion.
- 39. In late March 2011 counsel for the families received confidential advice about the open box. An approach to the police resulted in a meeting at the Hornby police station, at which Mr Monk and counsel were shown an image of the open box in a manner that enabled them to grasp its potential significance. This prompted an approach to counsel assisting the commission. As a result, Mr Taylor and others gave evidence at the Phase Two hearings. The C-ALS images were fully explored.
- 40. The commission considers that beyond recording this concern and setting out the background, it is not necessary to consider the matter further. Having seen and understood what is involved in producing an understandable C-ALS demonstration, the commission is not surprised that the potential significance of the images remained shrouded for some time. Although the delay was unfortunate, thanks to the vigilance of the families and their counsel, the matter has been addressed.

Communications during the recovery phase

41. Immediately after the second explosion, recovering their men became of the utmost importance to many of the effected families. Not everyone shared this viewpoint. The mother of one of the men stated that 'not all families want the recovery of the remains, preferring their loved one to be left to rest in peace. That millions would be spent to achieve recovery I find untenable.^{'26} A majority of family members, however, remain committed to recovery of the remains.

Police communication

- 42. Following the change from a rescue to recovery operation, family meetings continued to be held but with decreasing frequency from December 2010. After the police withdrew from the operation and handed the mine to the receivers, the police family liaison officers continued to attend meetings with the families. Communication through the e-text tree and the 0800 number continued.
- 43. On 16 January 2011, the police set up a secure, private website accessible only by registered family members. It contains a range of information and is a forum for families to ask questions. The website remains online.

November to December 2010

- 44. In late November 2010, Prime Minister John Key visited Greymouth and met the families. Following the company going into receivership in December 2010 he said, 'I gave a commitment to the families at Pike River I'd do everything I could to get their men out. I stand by that.'²⁷
- 45. The MRS asserted in an institutional statement to the commission that 'once it had been decided that it was a recovery operation Mr Whittall made comments to the media that "the boys" would be brought home for Christmas.²⁸ This, MRS suggested, was foolhardy because no one could provide a timeline for recovery.
- 46. The commission, however, received no evidence confirming that Mr Whittall had spoken of a recovery by Christmas. On 29 November 2010 he was quoted as saying that the families had asked if they would get their men home by Christmas, but that he responded 'it could be some weeks before the bodies were returned' and 'without being too

blunt, Christmas is another X on the page as far as what the rescue teams are working towards. They've got to look at the actual time it takes them to do their job.'²⁹

47. These comments probably explain the source of the assertion contained in the MRS statement. Mr Whittall did not endorse a recovery by Christmas, but his reference to a period of 'some weeks' was unfortunate. Understandably, the families listened with an optimistic ear and believed that recovery of the men was not too far off.

Developments in 2011

- 48. Throughout 2011 the families pursued recovery of the remains, including convening the meeting of interested parties in May 2011 (discussed in Chapter 16, paragraph 195) and questioning witnesses during the commission's hearings, including Mr Ellis when he gave evidence in September 2011. Although there was only modest progress towards re-entry into the drift, there were no signals that the chances of recovery were remote.
- 49. With a commitment to plan for re-entry made at the meeting in May 2011 and Mr Ellis' comments in September that the tunnel would be reclaimed by Christmas 2011, the message was that progress was being made toward re-entry and ultimately, potential body recovery. But by late January 2012 an adequate plan to seal, reclaim and re-enter the tunnel had not been developed.

Sale of the mine in 2012

- 50. The mine was sold to Solid Energy in mid-2012 (discussed further in Chapter 16, paragraph 200). As part of the sale process, Solid Energy carried out due diligence and met with the families several times. Solid Energy has explained they 'can see no way to safely carry out a standalone re-entry of the abandoned workings as part of a body recovery'. Solid Energy's position, made clear to the families, is that recovery can be attempted only as part of a wider commercial mining operation.
- 51. A briefing received by the families from Solid Energy chief executive Dr Donald Elder in May 2012 was based on advice Solid Energy had received from Professor Jim Galvin. The families were provided with a copy of Professor Galvin's report, and obtained an independent review of it from their own expert. It was made clear that successful recovery of the remains was very unlikely, and that if recovery did occur it may be many years away (See Chapter 16, paragraph 201). This seems to have been the first time the families were given a realistic appraisal of the situation based on evidence and in a manner that could not support their hopes.

Impact on the families

- 52. As noted earlier, the commission received both written and oral evidence in 2011 from members of the families. Many spoke of their dismay that the bodies had not been recovered and that no end was in sight. A high level of frustration, even anger, was evident concerning the delay in finalising and effecting a recovery plan.
- 53. In April 2012 the commission received evidence from Kathryn Leafe, chief executive of the Focus Trust, which provides social services to the West Coast community. The trust gave support after the tragedy and has continued to do so. Ms Leafe stated:

In most post-disaster situations by the six month point, the primary stressor or event is usually over and it is the secondary stressors that are the cause of concerns. However, with Pike River, the primary event is still in many ways ongoing as there remains the possibility of the recovery of human remains. Therefore families have been in a prolonged stage of grief and are still dealing with the primary stressor.³⁰

Her statement also explained that this has not only increased the demand for support, but also made providing it more complex.

- 54. In July 2012, senior counsel for the families filed a submission contending that the families received 'information which proved hopelessly optimistic throughout 2011', and that they were left 'to find their own way' because there was a 'lack of authoritative leadership over this period.'³¹
- 55. He said that the families attended the briefing in May 2012 with excitement, anticipating that re-entry and recovery may

be likely given the sale of the mine to Solid Energy. Instead, they were 'shocked by the harsh realities' outlined, of which they had 'no forewarning' so the outcome was devastating.³² As a result, the families' present focus is upon re-entry into the drift where they believe there may be remains in the section between pit bottom in stone and the rock fall.

Conclusion

- 56. The commission accepts that communications with the families concerning body recovery have not been well managed. Statements made in the period following the explosions raised expectations that the remains would be recovered within a modest timeframe. When this did not happen the families were naturally frustrated, and eventually angry. The management of communications is a matter of concern because it affected the families' ability to cope with the loss of their men.
- 57. The modest progress made in 2011 was, in the commission's view, a reflection of the complexities that confronted the receivers, MRS and others. The mine represented a unique re-entry challenge, given the combination of a single entry into the mine, the four explosions in late 2010, a major fire in the workings, at least one significant rock fall and limited knowledge of the underground conditions.
- 58. It seems it was not until the mine sale in 2012, when the government required that the terms of sale include a commitment from the purchaser to recover the bodies, that the hazards were fully assessed. This perhaps explains some of the communication deficiencies in 2011. After that assessment, Solid Energy confronted the problem, promptly met with the families and told them of the realities of the situation, unwelcome as the news proved to be.

Responsibility for recovery

- 59. The families underlined to the commission the isolation they have felt since the explosion. They have had to push for recovery and have felt on their own. The families seek a recommendation relating to who will retain responsibility for pursuing the question of recovery as far as reasonably possible because their 'abandonment has been deep seated and plagued them every day since the 19th of November.'³³
- 60. In Queensland and New South Wales, the company, through mine management, has control of the recovery operation and would be responsible for the costs. The company works in co-operation with other organisations, such as mines rescue and the mines inspectorate. Once the mine is safe and re-entry possible, the police are responsible for recovery of the remains. In practice, the police take control of the remains on behalf of the coroner only after the remains are retrieved by other specialty organisations, such as mines rescue. In both Queensland and New South Wales most coal mines are run by large companies who have the resources to cope with a recovery operation. There does need to be clarity about who is responsible for recovering the remains in New Zealand, especially where the mining company has limited funds or is in receivership. The pursuit of recovery should not be left solely to the friends and families of those who have died.
- 61. Recovery of the remains from Pike River now lies within the control of Solid Energy and the other parties to the July 2012 body recovery deed (discussed in Chapter 16, paragraph 200). The deed defines the new owner's obligations in relation to body recovery and contains mechanisms that enable the government to exercise some oversight. The commission is not in a position to influence these matters.

Welfare support provided to the families

Unstinted praise for welfare support

- 62. Criticisms contained in the families' witness statements about communication with them were balanced by unstinted praise of the support services made available.
- 63. One mother, for example, said: 'I cannot fault, or speak highly enough of the way we were treated by the personnel

of Pike River Coal, NZ Police, Mine Rescue, the Government, Air NZ, the Mayor and people of Greymouth, and the many voluntary groups we were helped and supported by during this time.³⁴

64. The spokesperson for some of the families, Mr Monk, said this about the support services:

The support offered, taken up and provided by Air New Zealand was outstanding. Many family members say [sic] great value in the liaison they had with Air New Zealand staff. The Air New Zealand support person for us was a constant prop.

Our police support liaison officer, Constable Terri Middleton, was simply excellent. She had so much empathy towards the family and was a wonderful communicator.

We received fantastic support from the Red Cross. They provided food, cups of tea, their facilities and as much information as they were able to give. There was a huge support from the local churches, the Greymouth community and the businesses, the local polytech, Victim Support and as time went on, the wider New Zealand community.

*I also found great support and leadership from Greymouth Mayor Tony Kokshoorn. In those early days before the family group was organised, he was the voice for the families.*³⁵

- 65. Other witness statements mentioned the assistance provided by John Robinson as the family liaison officer for Pike. He was assisted by Adrian Couchman, and also Denise Weir, previously human resources manager at Pike. She flew to Greymouth from Australia and for over three weeks voluntarily helped to co-ordinate Pike's support efforts.
- 66. On the evening of 19 November Air New Zealand sent its special assistance team to Greymouth and within 48 hours as many as 30 airline staff were based in the town. A liaison person was assigned to each of the 29 families who, as necessary, were given support in relation to travel, accommodation, obtaining passports and other immediate needs. The team remained until 29 November, when a staged departure began.
- 67. The police also established a Greymouth-based family liaison team to provide information on the rescue and recovery operations, and gather information as necessary. Two inspectors managed the team, which comprised 22 police staff at its height. Each family was assigned a liaison officer.
- 68. An online survey subsequently conducted by the police indicated that family members were highly satisfied with the performance of the liaison officers, the facilitation of family meetings and the quality of their secure website. The police plan to train 40 police staff who will undertake victim liaison duties on an as required basis in response to major disasters. The police are also developing written liaison guidelines to promote national consistency in relation to major crisis management.
- 69. The commission acknowledges the outstanding level and value of the support offered to the families by numerous agencies and individuals including (in addition to those already mentioned) St John Ambulance, Tai Poutini Polytechnic, the Grey District Council, the Accident Compensation Corporation, Work and Income New Zealand, the Salvation Army and the ministries of Social Development and Health. It also commends the police initiative to further develop its crisis liaison capacity.

Some early difficulties

70. As noted in paragraph 11, the identification of 'next of kin' caused some difficulties in terms of communication with family members. It also had an impact on who received welfare support services in the first few months following the explosion. When the Focus Trust became aware, in December 2010 and January 2011, of family members who had received little or no contact from support services, it set about building a better picture of individual family profiles. The trust found there were 'significantly more than 29 separate family units and a number of families where "next of kin" is complicated.³⁶ All were entitled to access support services.

Conclusions

71. The experiences undergone by the families of the deceased men suggest that the strategies and processes for communicating to them need improvement. Some recommendations are made in Chapter 32, 'Improving the emergency response'.

ENDNOTES

¹ Pike River Coal Ltd, PRCL H & S Induction Checklist, 27 November 2008, DAO.001.08679/4.

² See Pike River Coal Ltd, Employee Handbook: Induction Training, 2008, DAO.002.05609/15.

³ Richard Valli, transcript, p. 2595.

⁴ Gary Knowles, transcript, p. 2111.

⁵ See for example, Tammie O'Neill (wife of Peter O'Neill), witness statement, 18 July 2011, FAM00010/2, paras 3–4.

⁶ Wendy Robilliard, witness statement, 1 July 2011, POLICE.BRF.54/4, para. 12.

⁷ See for example, Carol Rose (mother of Stuart Mudge), transcript, p. 2582.

⁸ 'Pike River Coal Mine CEO', Close Up [Televison broadcast], 19

November 2010, http://tvnz.co.nz/close-up/mining-disaster-3904365/ video?vid=3904435

⁹ One News, New Zealand Press Association and Newstalk ZB, Pike River Mine Explosion Updates: First 48 Hours, 19 November 2010, http://tvnz.co.nz/ national-news/pike-river-mine-explosion-updates-first-48-hours-3904262 ¹⁰ Ibid.

¹¹ Ibid.

¹² One News, Newstalk ZB and New Zealand Press, Miners Spend Second Night Underground, 21 November 2010, http://tvnz.co.nz/national-news/ miners-spend-second-night-underground-3905380

¹³ One News, New Zealand Press Association and Newstalk ZB, Pike River Mine Explosion Updates: First 48 hours.

¹⁴ Barbara Dunn, Operation Pike Barb's Notes: Fri 19 Nov – Wed 24 Nov, 19–24 November 2010, PIKE.01842/14.

- ¹⁵ Peter Whittall, transcript, p. 2778.
- ¹⁶ Stephen Ellis, transcript, pp. 2289–90.
- 17 Ibid., p. 2294.

- ¹⁸ Peter Whittall, transcript, p. 2755.
- ¹⁹ Ibid., p. 2774.
- ²⁰ Peter Whittall, as cited by Stacey Shortall, transcript, p. 2797.
- ²¹ Wendy Robilliard, witness statement, 1 July 2011, POLICE.BRF.54/4, para. 12.
- ²² Gary Knowles, transcript, p. 2145.
- ²³ Peter Whittall, transcript, p. 2720.
- ²⁴ Danie du Preez, witness statement, 2 April 2012, DUP0001, para. 6.
- ²⁵ Bernard Monk, transcript, p. 2613.
- ²⁶ Marion Curtin, letter to the editor, The Press, 21 January 2012.

²⁷ Radio New Zealand, Who Will Pay for Mine Recovery Operation Unclear, 14 December 2010, http://www.radionz.co.nz/news/pike-river-2010/64183/ who-will-pay-for-mine-recovery-operation-unclear

²⁸ New Zealand Mines Rescue Service, witness statement, 1 August 2011, MRS0030/77, para. 424.

 ²⁹ Andrea Vance, Michael Fox and Amy Glass, 'New Blast Makes Mission More Difficult', The Press, 29 November 2010, http://www.stuff.co.nz/the-press/ news/pike-river-disaster/4399940/New-blast-makes-mission-more-difficult
³⁰ Focus Trust West Coast, Royal Commission of Inquiry Pike River Mine Coal Mine Tragedy: Submission, FOC0001/13, para. 94.

³¹ Nicholas Davidson, Counsel for the Families of Men Who Died in Pike River Mine – Submissions for Families in Response to Minute No. 14, 19 July 2012, FAM0061/9, paras 37–38.

- ³² Ibid., FAM0061/8, paras 29, 31, 33.
- ³³ Nicholas Davidson, transcript, p. 5607.
- ³⁴ Marion Curtin, witness statement, 20 July 2011, FAM00030/2, para. 2.
- ³⁵ Bernard Monk, transcript, p. 2606.
- ³⁶ Focus Trust West Coast, Submission, FOC0001/11–12, paras 79–86.