

Introduction

1. The labour market for mine workers is global, and demand for skilled and experienced workers is high. Many mines face shortages of experienced staff and therefore need to recruit new entrants to the industry. Their training and supervision are critical.
2. Training is a significant defence against major mining hazards: an inexperienced workforce is less likely to appreciate inherent risks and know how to mitigate them safely. Training requires a strong focus on health and safety and the teaching of safe practical mining skills. Quality ongoing supervision and mentoring are essential, as is supervisor training.
3. At the time of the explosion Pike employed 174 staff.¹ Several contractors also had their own staff and subcontractors onsite. Many members of this combined workforce were inexperienced in the hazards of underground coal mining.

Workforce problems

4. In 2009 and 2010 Pike faced a number of problems with its workforce, at a time of significant change for the company and when pressure for coal production was increasing daily.

High turnover of staff

5. Pike had a high turnover of miners underground,² and was unable to retain personnel in many key operational management roles.
6. As shown in Figure 6.1, from the time the mine was classified as a gassy coal mine in November 2008, Pike had six mine managers, two technical services managers and three engineering managers. In 2010 the mine had two production managers.
7. The high management turnover 'compromised [Pike's] functioning and continuity,'³ owing to inefficiencies, loss of institutional knowledge and the need for employees to adjust to differing management styles. There was no systematic handover process when staff changed; the exception was Pieter van Rooyen's handover when he left Pike in November 2010.⁴

Problems in attracting and retaining experienced staff

8. Lack of experience was a significant problem at Pike. As at November 2010 three key operational specialists in the technical services department, and the data and communication systems specialist, had no prior experience working in gassy underground coal mines.⁵
9. On occasion, Pike hired, for specialised roles, individuals who required intensive on-the-job learning amid the pressure for coal production. An example is the hydro co-ordinator who had no previous hydro-mining experience and had made that clear when interviewed for the position. He was promised training and support and was confident he could up-skill. But he received no formal training and was 'a little out of my depth because of my lack of knowledge of the hydro-machinery and equipment.'⁶ Other applicants with operational hydro-mining experience at West Coast mines applied for the role but were unsuccessful.⁷
10. It was also a 'struggle to obtain tradesmen with mining experience,'⁸ and Pike sometimes had to rely on contract tradesmen from Australia.

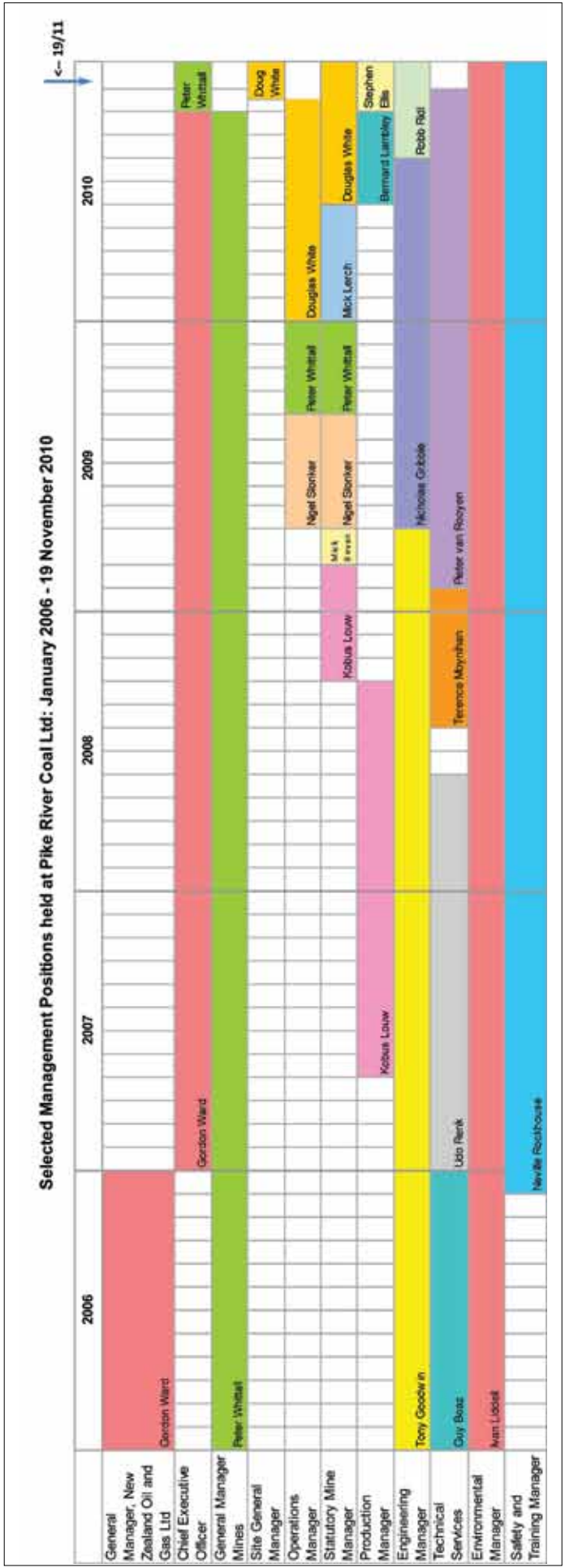


Figure 6.1: Selected management positions held at Pike River Coal Ltd, January 2006–19 November 2010⁹

Underviewers and deputies

11. Pike had an ongoing shortage of underviewers and deputies, which occasionally led to those on shift covering multiple roles.¹⁰ Among other problems, the shortage caused a delay in the training of the person identified as suitable to fill the role of ventilation officer, as the resignation of another underviewer left the mine short staffed at that level. Moving to a 24-hour production cycle in the hydro panel in October 2010, incorporating two 12-hour shifts, also meant that Pike could not have a deputy dedicated full time to the hydro production panel,¹¹ and there was no underviewer responsible for hydro mining.¹²

Percentage of cleanskins

12. Cleanskins are workers with little or no underground mining experience. The prominence of cleanskins within Pike's workforce was described as 'the nature of the modern industry'.¹³
13. There is no set or absolute ratio of experienced to inexperienced miners, but Neville Rockhouse estimated that 40 to 50% of workers at Pike were working in their first underground mine.¹⁴ To David Reece, an expert engaged by the Department of Labour (DOL), that level is a concerning 'sad reality' faced by the industry.¹⁵ Experienced mining consultant David Stewart from Minserv International Ltd (Minserv) considered that the ratio at Pike was not favourable and there were too few experienced miners given the nature of the operation and the conditions,¹⁶ which made it 'very difficult for [Pike] to maintain consistency and development and performance as so much of the work and skills were left to the experienced few'.¹⁷
14. The result of a high ratio of inexperienced miners is either reduced productivity or a lack of time for the experienced miners to 'actually teach and ... mentor all those people in the crews with them',¹⁸ as 'you can't easily do both'.¹⁹ Trainer/assessor George Colligan considered that the ratio at Pike was 'way [too] low' and slowed down the machinery certification process as experienced miners were required to supervise trainees.²⁰
15. Some of the experienced miners working underground had real concerns:

*I have got to admit I've found it very hard here with the young men. They seem to have too much self-confidence, too quick. They've been underground maybe six months and they are a miner. But they can't have in those six months appreciated the dangers down there. ... Some of these young men have called me some serious names while I've been here ... I said, 'Look, I don't care. I've been in this game all my life and I'm not going to die here just because you don't understand where you are working.' And that's why I jacked it in.*²¹
16. Pike recognised the ratio of cleanskins 'was starting to get out of whack' after it employed all the new trainees who completed its second intake of the three-month trainee induction programme, discussed in paragraph 44. Pike decided not to run a third intake for some time.²²

Absenteeism

17. The experience ratio was not assisted by absenteeism. The difficult working conditions underground (the cold, wet environment and steep grades), frustrations with underperforming equipment and low morale were no doubt contributing factors.²³
18. Reginald Matthews, a trainer/assessor at Pike in 2009 and 2010, described the level of absenteeism as 'very high': 'It was almost as if staff took the view that if you could get away with it, and there were no "consequences", then why not do it'.²⁴
19. Adrian Couchman considered that while 'on paper' the ratios per shift were correct, on many occasions experienced staff would be absent but the shift would proceed with trainees under the supervision of the shift deputy.²⁵ The level of absenteeism sometimes had a direct effect on development²⁶ and Pike issued warnings and terminated some employees for absenteeism through 2009 and 2010.²⁷
20. In July 2010 the hydro-mining start-up bonus discussed in Chapter 12, 'Hydro mining', was instituted, although the cause of the absenteeism problem was not clear to the board.²⁸ The bonus was reduced by \$200 for each non-attendance, defined as every day or shift on which an employee was rostered but did not work for any reason,

including sickness or lateness.²⁹ By November 2010, Pike considered that the bonus scheme had led to a 'reduction in sick leave usage'.³⁰

Diverse nationalities

21. Pike employed a diverse workforce. Mr Stewart's impression was that this diversity created a separation:³¹

*The workforce was further complicated by the mix of New Zealanders, Australians and South Africans scattered through all levels. In many operations this can be an advantage, but at PRC mine it appeared to add to the apparent dysfunctional nature of the organisation and communication within the mine and between underground and surface.*³²
22. As well as difficulties with communication and managerial styles, the diversity also meant a lack of consistency in approach and style to decision-making and in operational planning and implementation. At management level there was a notable lack of local mining experience in the West Coast's unique conditions,³³ and many of the overseas staff were used to operating under and complying with much more prescriptive mining regulations than existed in New Zealand.
23. Neville Rockhouse considered that the integration of diverse backgrounds of Pike's staff and contractors was also 'not an ideal situation for generating effective health and safety in the mine' and led to differing levels of understanding of health and safety documents, including risk assessments, job safety and environmental analyses (JSEAs) and safe operating procedures (SOPs).³⁴
24. In 2007 Pike had recognised that 'cultural diversity will certainly become an issue' as the company expanded,³⁵ and proposed training for the management team and employees. This had not occurred before the explosion.

Training at Pike

Obligations to workers

25. Under the Health and Safety in Employment Act 1992 (HSE Act) Pike was required to take all practicable steps to ensure that every employee had adequate supervision and training to work underground.³⁶

Industry qualifications

26. The mining industry in New Zealand has largely determined its workforce skill standards through the work of the Extractive Industry Training Organisation (EXITO). EXITO has set the curriculum and assessment requirements for regulated roles in mines, and worked with employers to develop national qualifications for the mining industry. DOL, as the regulator, has not been involved.
27. There are 24 extractives industry qualifications (national diplomas and certificates) available in New Zealand,³⁷ including several specific to the coal industry, all with a strong focus on health and safety in the workplace. All EXITO's national qualifications are made up of unit standards that set out short statements of what people need to know or be able to do to show that they are competent in a particular skill area.³⁸
28. People carrying out specific roles, including first class coal mine manager, coal mine underviewer and coal mine deputy, must have certificates of competence (COCs), also known as tickets, permits or licences. These are different from EXITO qualifications but are obtained by completing some of the same unit standards, together with relevant experience. DOL delegated authority to EXITO to issue COCs.

Recognition of overseas certificates of competence

29. The necessity to fill statutory positions with overseas workers led Pike to push for the development, through Tai Poutini Polytechnic and EXITO, of an industry programme known as professional conversation.
30. To qualify in New Zealand under this programme, workers holding COCs from other countries must obtain a

New Zealand gas ticket, complete New Zealand Qualifications Authority (NZQA) unit standard 7142 on legislative requirements,³⁹ and then appear before a panel comprising an educator, an EXITO moderator and an industry expert. The panel assesses each applicant to determine whether any further training is required before a New Zealand COC is issued.⁴⁰ Pike used this programme successfully for several of its overseas staff.

31. In 2009 an automatic process was established, under Part 3 of the Trans-Tasman Mutual Recognition Act 1997, allowing workers holding an Australian COC to obtain the New Zealand equivalent without further training, other than gaining their New Zealand gas ticket. Under this process applicants are not required to complete NZQA unit standard 7142, as long as the mine manager is satisfied that they understand New Zealand's mining legislation,⁴¹ a requirement met by Pike by its site induction or specific onsite training.⁴²
32. Peter Whittall was instrumental in establishing this process, suggesting to EXITO that those holding a COC from New South Wales or Queensland should not have to undergo the subjective professional conversation programme when the qualifications were mutually recognised.⁴³ EXITO and DOL eventually agreed. This means that no professional conversation is required,⁴⁴ and there is no objective assessment of an applicant's knowledge of New Zealand legislation.
33. Not everyone agrees with this approach. It is generally accepted in the industry that Australian mining qualifications are of a higher standard than their New Zealand equivalents and are more difficult to achieve,⁴⁵ yet the mutual recognition process also allows New Zealand COC holders to automatically qualify in Australia with limited further training required. This process leads to a perception that New Zealand can be a 'back door' way for Australian miners to more easily obtain their COCs.⁴⁶
34. Alignment of training and qualification standards with Australia and involvement of the regulator are discussed further in Chapter 31, 'Qualifications, training and competence'.

Resourcing of training

35. Organisation of formal training at Pike was the responsibility of the safety and training department. From 2007 Pike outsourced several aspects of its workforce training, including to Tai Poutini Polytechnic. But by late 2010 the increase in Pike's workforce meant those involved in health, safety and training had been overworked and under resourced for some time.⁴⁷
36. Mr Couchman was employed in September 2008 as the training co-ordinator, reporting to Mr Rockhouse. He developed and managed staff induction and training programmes, and had a secondary safety role that included issuing personal protection equipment to miners, underground audits of safety equipment, maintenance of the incident/accident reporting system and random drug and alcohol testing. He also chaired the workforce health and safety committee. Mr Couchman had no previous mining experience and arranged to outsource some of the technical training.
37. From June 2009 to May 2010 Reginald Matthews, a workplace trainer/assessor with over 30 years' mining industry experience, was contracted by Tai Poutini and based at Pike to conduct training and assessments on mobile machinery, and surface and underground safety audits.⁴⁸ He was joined in November 2009 by George Colligan, another experienced miner and trainer/assessor with more than three decades of industry experience.⁴⁹ Together, they were responsible for training and assessing everyone at Pike, including contractors, on their competencies on the mine's machinery and equipment. Messrs Matthews and Colligan established a database or skills matrix that recorded and updated every individual crew member's skill level and certified competencies.⁵⁰
38. After Mr Matthews left Pike, Mr Colligan became the sole trainer/assessor at the mine. Pike was employing more staff and commissioning more plant and equipment, leaving him 'run of [sic] my feet' trying to keep up with the workload.⁵¹ Mr Colligan had either trained or assessed 28 of the 29 men who died in the mine on 19 November 2010 in various roles and on different mining equipment and plant,⁵² and was confident that each had reached their respective certified skill levels and competencies in accordance with Pike's processes and procedures.⁵³
39. From July 2008 the safety and training department also had a part-time contractor, Michelle Gillman, who assisted Mr Rockhouse in controlling the safety management documents and planning safety materials.⁵⁴ Mr Rockhouse

campaigned for more staff and was given some administrative support,⁵⁵ but after restructuring in September 2010 Mr Couchman ceased his safety role and moved into the human resources department as the training officer.⁵⁶ Neither Mr Couchman nor Mr Rockhouse considered the restructuring a positive move, and other commitments left Mr Rockhouse little time to conduct safety audits underground after Mr Couchman was transferred.⁵⁷

Training of workers

Recognition of training needs

40. Pike's response to the difficulty in attracting and retaining experienced staff was to recruit 'suitable local people and to give them appropriate training.'⁵⁸ The company recognised that this meant a need for quality industry-based training, so it developed a number of training programmes from a basic induction through to specialised training for departmental staff.
41. For all its training programmes Pike used a consistent principle that 'three bodies of evidence of competency' were required: attendance at a training course, completion of a written assessment and an assessor's sign-off confirming competency.⁵⁹ Initially, each employee had performance appraisals when their individual training needs were identified by the head of department and signed off by the mine manager.⁶⁰ However, performance appraisals were 'overlooked' from mid- to late 2009, and Mr Rockhouse only had time to do 'a couple' of safety contacts (performance checks of staff underground) in 2010.⁶¹

Basic induction

42. Everyone working or visiting underground was first required to attend Pike's basic classroom-based induction training, which had up to four levels, depending on where an inductee would be working. Underground workers had to complete a 'level 2 – general surface induction' and 'level 3 – underground induction', which together took about two hours and introduced the mine site, covered rules for working on the surface and underground, and included instruction on emergency procedures.⁶² New employees had a more in-depth induction that initially took up to two and a half weeks, but was shortened to a week when employee numbers increased.⁶³ However, on occasion contractors were found working underground with no induction.⁶⁴
43. Every person working underground at Pike also had to pass a medical examination and complete the New Zealand NZQA unit standard 7146.⁶⁵ This two-day course, delivered offsite by the Mines Rescue Service (MRS), required participants to describe and demonstrate the basic skills necessary for working in an underground mine.⁶⁶

Trainee induction programme

44. In 2009, in partnership with Tai Poutini Polytechnic, Pike developed a 12-week trainee induction programme designed for people new to the mining industry. The programme, based on NZQA unit standards, involved an initial two-week induction course at Pike, which included an underground tour and a walk out of the mine, then four weeks offsite completing training from the MRS and experienced consultant trainers. There was a further six weeks onsite at Pike when they were assigned to a crew, rotating around shifts. During that period trainees would work two to three shifts per week under supervision, and spend two days offsite on further theoretical and practical study.⁶⁷
45. At the end of the programme, trainees completed a set of unit standards which gained them a Level 2 National Certificate in Extractive Industries (Introductory Skills). Then, if considered suitable, a trainee would be offered a job at Pike and, after one year underground as a trainee miner, could apply for miner status.
46. This trainee induction programme was described as 'ground breaking and extremely comprehensive', and the polytechnic received positive feedback from Pike management, experienced miners and the trainees themselves.⁶⁸
47. Two intakes were run before November 2010 and 11 trainees completed the programme in each intake, and were offered employment at Pike.⁶⁹

Continuing workforce training in 2010

48. Management appreciated that targeted ongoing training was necessary for its workforce, and made efforts to address training gaps when they were identified. Sources of information on training requirements included the statutory reports, incident/accident reports and the *I Am Safe* booklets completed by workers.
49. The trainer/assessors frequently found 'non-trained or non-competent' people operating machinery underground, and provided specialised training to workers and licensed them for the operation of equipment and machinery.⁷⁰ Shortly after his arrival at Pike, Douglas White brought in a consultant to audit Pike's training packages against the equivalent NZQA unit standards. Mr Couchman had begun to update some of the training packages for mine machinery by the time of the explosion, but it was a time-consuming process.⁷²
50. Pike's engineering department had developed a reputation for isolating itself and not being involved with the safety and training department's objectives and requirements. This changed when engineering manager Robb Ridl was appointed in mid-2010, and Mr Couchman was put in charge of engineering training. Specialist training programmes were designed, a specialist consultant was engaged to provide the training and sessions had begun before the explosion.⁷³
51. In April 2010 Mr White made changes to the shift roster system that meant day and afternoon shifts were shortened and overlapped to allow continuous production and daily one-hour training sessions at the beginning of the afternoon shift. These sessions covered SOPs, where available, supplemented by each department delivering training modules on chosen subjects. Friday was also a designated training day for crews not in production, which usually coincided with a maintenance day for one of the development machines. This session was designed for more advanced or detailed training on specific topics.⁷⁴
52. Mr White also initiated refresher training to be delivered within the Friday training session, targeting miners who had not had any follow-up training for some time. This session was designed to review policies and procedures, and to refresh staff knowledge in such areas as ventilation, use of self-rescuers and first aid training. Outside trainers were often brought in, and in September 2010 Mr Couchman arranged through the polytechnic for Harry Bell, a highly regarded and experienced West Coast miner, to conduct eight of these Friday refresher sessions on gas and ventilation management.⁷⁵
53. However non-attendance at the Friday training sessions had increased throughout the year. On one occasion underwriters told Mr Couchman that they could not afford to release staff for training because they did not have enough staff on shift to continue production. By October and November attendance had fallen so significantly that Mr Bell's training was postponed after only two sessions, and Friday training was cancelled for the rest of the year.⁷⁶ Human resources manager Richard Knapp reported the reasons to the management meeting on 10 November 2010:

The issue of Friday training being poorly attended has led to the decision to cancel the Friday training for the rest of this year (we also need the production). The reasons behind this are that it is costing the training budget over \$1000 per session to arrange this and when only 2 underground staff turn up to one session and on another occasion nobody turned up at all means that it is not good value for money to continue. This has been an ongoing issue and [sic] has been a struggle to get shift managers to release staff to participate in this process from the beginning.⁷⁷

Some training issues

54. Despite Pike's efforts, there were some gaps in the training programme and some worker behaviour underground revealed training failures.

Training gaps

55. The responsibilities of control room operators had become progressively more demanding as the mine developed but they had received only limited formal training. There had been no formal training on gas monitoring using the Safegas and SCADA programmes, with the exception of specific training from Mr White on a system he had put in

place for monitoring carbon monoxide levels.⁷⁸ After a meeting with the operators, management had agreed to provide more training but this had not occurred before the explosion.⁷⁹

56. Specific training was given to the first hydro-mining crew who worked five days a week commissioning the hydro monitor and equipment in September 2010. When Pike moved to a 24-hour four-crew operation there was limited time to train the new crews. Stephen Wylie, a deputy assigned to one of the hydro crews, had some hydro-mining experience from Spring Creek but asked for training on Pike's set-up. None was given, which 'made it difficult, like especially since I was a supervisor on the panel'.⁸⁰
57. There was also insufficient training in emergency preparedness at Pike. As discussed in Chapter 16, 'Search, rescue and recovery', training on the use of self-rescuers was inadequate. Many of the workers at the mine in November 2010 had not been involved in a mock underground evacuation, the last one having taken place in October 2009. There had been no training to test the practical implementation of the mine's emergency response management plan, which had not been reviewed since February 2009.⁸¹

Lack of leadership training for supervisors underground

58. There was no mentoring system for trainee miners once they were employed,⁸² other than being assigned to a deputy or to an experienced miner. But deputies or leading hands were not given any specialised training in how to supervise, mentor and train the trainees.⁸³ At Mr White's request, Mr Stewart had provided some informal mentoring of the underviewers and deputies during his compliance audits, accompanying them underground for a shift and providing feedback and guidance,⁸⁴ but this had not continued after April 2010. Pike was working towards having a qualified workplace trainer/assessor on each shift to run the trainees, but this was not in place by November 2010.⁸⁵
59. Comments made to Mr Couchman in November 2010 by some of the second intake of trainees indicated that the safety approach taught in the classroom was not always evident underground.⁸⁶ This concerned Mr White, who considered there was a 'direct leadership issue, especially with our senior miners and deputies'.⁸⁷ He discussed engaging a consultant to help improve supervision underground, but a proposal from an Australian consultant was declined on 18 November 2010 to give Stephen Ellis, the production manager, an opportunity to 'right things himself'.⁸⁸

Contraband

60. Contraband incidents were reported and tool box talk safety advisory and newsflash notices were circulated throughout the Pike workforce.⁸⁹ Random searches for contraband began in late 2009,⁹⁰ and occurred frequently throughout 2010.⁹¹ A process for searches was included in the mine manager's rules.⁹² Contraband was also addressed in the NZQA unit standard training and in Pike's induction and in-house training, and Pike had signs around the site and at the portal entrance reminding of the prohibitions underground.⁹³ Although there are no completed incident/accident forms regarding contraband after April 2010, statements obtained from workers during the joint investigation suggested that the problem of workers taking contraband underground, intentionally or otherwise, continued.⁹⁴

Bypassing safety systems

61. Analysis of the incident/accident reports exposed incidents of deliberate bypassing of safety systems and tampering with safety locks or covers, rendering them inoperable.⁹⁵ As discussed in Chapter 12, 'Hydro mining', a worker admitted briefly taping a plastic bag over a methane monitor on the morning shift on 19 November 2010.⁹⁶

Unsafe ventilation practices

62. The commission received evidence of a number of incidents involving unsafe ventilation practices, including incidents where air was diverted away from a working face without workers being given prior notice,⁹⁷ where the ventilation had been shut down for over 40 minutes while maintenance work on machines underground continued and workers were overcome by fumes from machinery,⁹⁸ and where inexperienced workers showed a lack of regard for basic ventilation and gas practices and the need for set procedures.⁹⁹ These were the types of practices that Mr Bell had been hired to deal with before his training sessions were cancelled.

Contractor problems

Introduction

63. Under the HSE Act, Pike was required to take all practicable steps to ensure that no employee, contractor or subcontractor was harmed while working, and that no hazard in its workplace harmed people in the vicinity.¹⁰⁰ Pike had a contractor management system, but it was not fully implemented.

Induction of contractors

64. Before working underground at Pike, contractors had to complete only the basic two-hour induction training, a medical examination and the NZQA unit standard 7146. Short-term contractors (fewer than five days on site) working underground had only to complete the two-hour induction training.¹⁰¹ Other than delivering basic inductions and some on-the-job instruction, Pike was not involved in training contractors,¹⁰² and it was hit and miss whether all contractors received Pike's safety information by way of tool box advisory notices, newsflashes and the minutes of the health and safety committee.¹⁰³
65. Mr Couchman was concerned that Pike's standard of induction for contracted workers was deficient compared with that given to new employees.¹⁰⁴ To address the problem, in mid-2010 Mr Couchman designed a standardised five-day induction for employees and contractors, which he presented to Messrs White and Rockhouse. The programme was welcomed but he was told 'we would have to wait until we were in full coal production before it could be introduced.'¹⁰⁵ He understood that was because of the time needed to fully induct the large number of contractors on site, whereas by the time full coal production was reached (estimated for February 2011) there would have been a 'lot less reliance' on contractors.¹⁰⁶

Pike's policy on contractor management

66. Pike's policy and procedures for managing contractor health and safety were set out in its safety manual,¹⁰⁷ which included requirements for contractors to comply with the mine manager's rules, to report incidents or accidents using Pike's forms and to advise the company what risks they and/or their equipment would introduce into the mine.¹⁰⁸ Contractors were to operate under the supervision of Pike staff, usually the project manager who employed them,¹⁰⁹ and a contractor authority to work permit had to be issued by Pike before work started. This was to ensure contractors had the same level of understanding and experience of site operations and hazards as Pike employees.¹¹⁰

Contractor health and safety systems

67. Pike required all contractors without their own site specific health and safety system to complete the contract specific safety management plan in Pike's 'SubbyPack™'.¹¹¹ This was a suite of documentation designed to 'establish a minimum and auditable standard for the management of Occupational Health and Safety by contractors and sub-contractors',¹¹² and to ensure compliance by Pike and the contractor with their obligations under the HSE Act.
68. Both the large contractors, McConnell Dowell Constructors Ltd and VLI Drilling Pty Ltd (VLI), had their own extensive site-specific health and safety systems. McConnell Dowell had a health and safety officer at the mine who attended Pike's health and safety committee meetings and the daily production meetings.¹¹³ Only some of the smaller contractors had their own health and safety systems, but not all of those were specific to Pike or even to underground coal mining.¹¹⁴

Responsibility for contractor management

69. Some Pike staff directly managed contractors,¹¹⁵ and consultants assisting Pike in 2010 were managed by the department staff who engaged them. But from 2009 responsibility for the general management of many of the smaller labour hire contractors (those brought in when necessary to provide labour for projects in the mine) was

given to Terence Moynihan, himself an independent contractor working as manager of the project team,¹¹⁶ and two contractors he managed, Rem Markland and Matthew Coll. The project team managed the day-to-day work of their smaller contractors and were often underground checking on the workers and their tasks, but they did not see their role as including managing the contractors' health and safety, other than in a limited way during construction and installation activities.¹¹⁷

70. In early 2010 Mr Rockhouse learnt that Pike had begun to engage contractors on hourly hire contracts and in about July/August 2010 he asked Mr Moynihan for contractor documentation for the new faces he had noticed around the mine. But it did not exist because the project team was unaware of the health and safety documentation that Pike required from its contractors, or of their obligation to obtain that information before a contractor began work underground.¹¹⁸ This meant many contractors had staff working underground at Pike without their own health and safety system in place, and without the alternative protection of having their staff inducted into Pike's health and safety system, as required by the company's safety manual.¹¹⁹
71. Since management were confident that any safety matters would be addressed by the project team, it was agreed that Pike would improve its safety management system for contractors over the following three months rather than delay the project work (the commissioning of the hydro panel and underground fan) to review each contractor. Those improvements had not occurred by 19 November 2010.¹²⁰

No auditing of contractor safety

72. Although Pike's safety management system required regular audits of contractor safety performance,¹²¹ there is no evidence to establish that Pike audited either McConnell Dowell and VLI or any of the smaller contractors who lost men on 19 November 2010.¹²² As a result of this omission, Pike was missing vital information on its contractors and the hazards that their staff and/or equipment might introduce to the mine.¹²³

Supervision of contractors underground

73. There was no formal system requiring Pike's deputies to regularly check the safety of contractors while working underground.¹²⁴ In practice that was left up to their discretion when checking their areas of responsibility within the mine.
74. There was also no system to keep track of the locations of contractors underground, although the project team had a weekly plan that included information on where their contractors would likely be working each day. Contractors were not restricted from moving around the mine and 'pretty much looked after themselves'.¹²⁵ Visitors and contractors were required to sign in and out but that sometimes did not happen,¹²⁶ and neither that system nor the portal tag board helped the control room or the deputies to keep track of contractors' whereabouts underground.¹²⁷

Conclusions

75. Recognising the training needs of its relatively inexperienced and diverse workforce, Pike set out to create and implement good training programmes. But the company struggled to always train its workforce adequately. This was partly due to underresourcing and work pressures preventing the release of miners from their crews to attend training sessions. Some worker conduct underground reflected inadequate training, inexperience and a lack of underground leadership.
76. Pike's induction training for new employees was comprehensive, but the quality of contractor induction was inadequate. These workers faced the same hazards and should have received the same level of induction.
77. The management of contractors got away from Pike in 2010 and these workers were often left to their own devices. No person or department took overall responsibility for contractor management, and Pike did not ensure sufficient health and safety training and awareness for its contracted workforce. Safety performance audits of contractors were required but did not occur.

ENDNOTES

- 1 Peter Whittall, witness statement, 22 June 2011, PW0/3, para. 5.
- 2 Adrian Couchman, transcript, p. 3827.
- 3 David Stewart, transcript, p. 3344.
- 4 Pieter van Rooyen, Pieter van Rooyen Handover Notes, 2 November 2010, PVR002.
- 5 Department of Labour, Pike River Mine Tragedy 19 November, 2010: Investigation Report, [2011], DOL3000130010/243, para. 5.10.1.
- 6 George Mason, transcript, pp. 3638, 3663–64; George Mason, witness statement, 31 October 2011, MAS0001/5, para. 14.
- 7 Matthew Coll, witness statement, 20 November 2011, FAM00055/5, para. 19.
- 8 Pike River Coal Ltd, Minutes of a Meeting of Directors, 24 August 2010, DAO.007.28248/4.
- 9 Diagram adapted from: Peter Whittall, Selected Management Positions Held at Pike River Coal Limited, January 2005–19 November 2010, PW22/1.
- 10 Dene Murphy, witness statement, 2 December 2011, FAM00057/15, para. 84.
- 11 George Mason, transcript, p. 3653.
- 12 Stephen Wylie, transcript, p. 3708.
- 13 Peter Whittall, transcript, p. 2786.
- 14 Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/53, para. 189.
- 15 David Reece, transcript, p. 4699.
- 16 David Stewart, transcript, p. 3341.
- 17 *Ibid.*, p. 3344.
- 18 David Stewart, Police/DOL interview, 4 April 2011, INV.03.17291/15.
- 19 Albert (Alan) Houlden, witness statement, 14 November 2011, FAM00053/12, para. 61.
- 20 Alexander (George) Colligan, witness statement, 18 March 2012, COL0001/8, para. 42.
- 21 Albert (Alan) Houlden, witness statement, 14 November 2011, FAM00053/8, paras 38–41.
- 22 Adrian Couchman, transcript, p. 3828.
- 23 Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/54, para. 192.
- 24 Reginald Matthews, witness statement, 29 November 2011, MAT0001/15, p. 96.
- 25 Adrian Couchman, transcript, p. 3828.
- 26 An example occurred in August 2010 when three machines were in position ready to cut coal, but there was a lack of available operators to run them: Pike River Coal Ltd, Operations Meeting, 4 August 2010, DAO.002.14764/6.
- 27 Pike River Coal Ltd, Operations Meeting, 8 October 2009, DAO.002.14097/6; Pike River Coal Ltd, Operations Meeting, 1 September 2010, DAO.002.14860/7.
- 28 John Dow, transcript, p. 3934.
- 29 Letter, John Dow to all staff, 5 July 2010, DAO.011.22212/3.
- 30 Pike River Coal Ltd, Operations Meeting, 10 November 2010, DAO.002.14998/7.
- 31 David Stewart, transcript, p. 3369.
- 32 *Ibid.*, pp. 3341–42.
- 33 Matthew Coll, witness statement, 20 November 2011, FAM00055/6, para. 25.
- 34 Neville Rockhouse, witness statement, 1 April 2012, ROCK0031/8, paras 37–38.
- 35 Pike River Coal Ltd, Leadership Team Meeting – Minutes of the PRCL Leadership Management Team, 28 February 2007, DAO.025.43041/2.
- 36 Health and Safety in Employment Act 1992, s 13.
- 37 National qualifications are those approved and quality assured by the New Zealand Qualifications Authority. They feature in the National Qualifications Framework and levels of difficulty are assessed within this framework, with level 1 being the least difficult and levels 8 to 10 being university qualifications.
- 38 Each unit standard has a level and a credit value, which gives an idea of how long it is likely to take. One credit is roughly equivalent to 10 learning and assessment hours, although this varies depending on the skills and knowledge a candidate already possesses: Extractive Industry Training Organisation, Adding Value to Industry with On-Job Training and National Qualifications, http://exito.org.nz/documents/cat_view/109-corporate-documents
- 39 New Zealand Qualifications Authority, NZQA Registered Unit Standard 7142, Version 7: Demonstrate Knowledge of the Application of Regulatory Requirements to Manage an Extractive Site, 2010.
- 40 Peter Fairhall, witness statement, 6 November 2011, FAI0001/1, paras 7–10.
- 41 *Ibid.*, FAI0001/1, para. 12.
- 42 Email, Peter Whittall to Kevin Walker and others, 17 December 2009, DOL3000010036/1.
- 43 Emails between Peter Whittall, Kevin Walker and others, 8 December 2009–4 February 2010, DOL3000010032, DOL3000010036.
- 44 Peter Fairhall, witness statement, 6 November 2011, FAI0001/1, para. 12.
- 45 Adrian Couchman, transcript, p. 3864; Robert (Gavin) Taylor, witness statement, 11 May 2012, DOL7770060001/2–3, paras 6–11.
- 46 Stephen Ellis, transcript, p. 2314. An example at Pike is a mine manager who failed three times to obtain a first class mine manager's COC in Queensland in 2009 and 2010, because he did not pass oral examinations. After arriving at Pike in September 2010, he completed the unit standard requirements and a professional conversation in November 2010, and obtained a New Zealand first class mine manager's COC: Stephen Ellis, witness statement, 17 April 2012, DAO.042.00036; Robert (Gavin) Taylor, witness statement, 11 May 2012, DOL7770060001.
- 47 Peter Fairhall, witness statement, 6 November 2011, FAI0001/2, para. 19; Michelle Gillman, witness statement, 10 November 2011, GIL0001/4, para. 17; Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/13, paras 30–31; Reginald Matthews, witness statement, 29 November 2011, MAT0001/8, paras 45–48; Adrian Couchman, witness statement, 28 November 2011, COU0001/7, paras 29–34; Alexander (George) Colligan, witness statement, 18 March 2012, COL0001/97, para. 40.
- 48 Reginald Matthews, witness statement, 29 November 2011, MAT0001/4–6.
- 49 Alexander (George) Colligan, witness statement, 18 March 2012, COL0001/4–5.
- 50 *Ibid.*, COL0001/6–7, para. 38.
- 51 *Ibid.*, COL0001/7, para. 40.
- 52 Mr Colligan had not trained Joseph Dunbar, who was underground at the Pike River mine for the first time on 19 November 2010.
- 53 Alexander (George) Colligan, witness statement, COL0001/8, paras 45–46.
- 54 Michelle Gillman, witness statement, 10 November 2011, GIL0001/3, para. 1.
- 55 Adrian Couchman, witness statement, 28 November 2011, COU0001/6, para. 26.
- 56 *Ibid.*, COU0001/5, para. 18.
- 57 Adrian Couchman, transcript, pp. 3823–24; Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/16, 42, paras 39, 41, 141–42; Michelle Gillman, witness statement, 10 November 2011, GIL0001/4, para 14.
- 58 John Dow, transcript, p. 3933.
- 59 Adrian Couchman, witness statement, 28 November 2011, COU0001/10, para. 49; Adrian Couchman, transcript, p. 3780.
- 60 Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/55, para. 195.
- 61 Neville Rockhouse, transcript, pp. 4273–74; Pike River Coal Ltd, Corporate Safety Manual: Section 1.7, June 2008, DAO.001.08593.
- 62 Adrian Couchman, transcript, pp. 3762–63.
- 63 *Ibid.*, p. 3764.
- 64 Royal Commission on the Pike River Coal Mine Tragedy (Katherine Ivory), Summary of the Reports of Certain Incidents and Accidents at the Pike River Coal Mine, November 2011, CAC0114/64–65, sch I.
- 65 Adrian Couchman, transcript, p. 3762; New Zealand Qualifications Authority, NZQA Registered Unit Standard 7146: Demonstrate Basic Knowledge and Ability Required to Work in an Underground Mine, Version 7, 2010, CAC0142.
- 66 Including knowledge and use of self-rescuers, cap lamps and personal protective equipment; safe measures for isolation of energy systems to machinery and equipment underground; knowledge of emergency procedures; personnel security issues (contraband, restricted zones and restricted materials) and accounting systems (tag, paper, cap lamp number); and the ability to describe basic ventilation principles and practices in an underground mine, and demonstrate basic knowledge of mine gases. Knowledge of the requirements of the HSE Act and relevant regulations was

also required.

- ⁶⁷ Adrian Couchman, witness statement, 28 November 2011, COU0001/8, paras 36–39; Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/54, para. 190.
- ⁶⁸ Peter Fairhall, witness statement, 6 November 2011, FAI0001/1, para. 5.
- ⁶⁹ Adrian Couchman, transcript, p. 3772.
- ⁷⁰ Reginald Matthews, witness statement, 29 November 2011, MAT0001/6, para. 31.
- ⁷¹ Adrian Couchman, transcript, p. 3778.
- ⁷² *Ibid.*, pp. 3780–81.
- ⁷³ Adrian Couchman, witness statement, 28 November 2011, COU0001/10, paras 50–51.
- ⁷⁴ Douglas White, transcript, pp. 1119–20; Adrian Couchman, transcript, p. 3782; Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/54, para. 191; Email, Michelle Gillman to Neville Rockhouse and Douglas White, 7 March 2010, ROCK0027/1.
- ⁷⁵ Adrian Couchman, witness statement, 28 November 2011, COU0001/9, para. 45; Adrian Couchman, transcript, pp. 3781–82, 3829–30.
- ⁷⁶ Adrian Couchman, witness statement, 28 November 2011, COU0001/9, para. 47; Adrian Couchman, transcript, pp. 3829–30; Peter Fairhall, witness statement, 6 November 2011, FAI0001/2, para. 17.
- ⁷⁷ Pike River Coal Ltd, Operations Meeting, 10 November 2010, DAO.002.14998/8.
- ⁷⁸ Douglas White, transcript, p. 4923.
- ⁷⁹ Daniel Duggan, transcript, p. 1609; Barry McIntosh, Police/DOL interview, 2 August 2011, INV.03.28697/33–34; Douglas White, transcript, pp. 4921–24.
- ⁸⁰ Stephen Wylie, transcript, p. 3705.
- ⁸¹ Douglas White, transcript, p. 1263; Neville Rockhouse, transcript, p. 1451.
- ⁸² Adrian Couchman, transcript, p. 3776.
- ⁸³ *Ibid.*, pp. 3776–77.
- ⁸⁴ David Stewart, transcript, pp. 3343, 3360–61; Emails between Douglas White, David Stewart, Michael Lerch and Peter Whittall, 15–16 February 2010, CAC0138/4–5.
- ⁸⁵ Adrian Couchman, transcript, p. 3777.
- ⁸⁶ Adrian Couchman, witness statement, 28 November 2011, COU0001/8, para. 41; Adrian Couchman, transcript, pp. 3773–74; Pike River Coal Ltd, Trainee Miner Recommendations: August 2010 Intake, 9 November 2010, INV.04.00649/2–3.
- ⁸⁷ Email, Douglas White to Richard Knapp and Stephen Ellis, 9 November 2010, INV.04.00691/3–4.
- ⁸⁸ Emails between Douglas White and Ted Botham, 15–18 November 2010, INV.04.00661/4–7 and INV.04.00733/1.
- ⁸⁹ See, for example, Tool Box Talk Safety Advisory notices issued on 31 March 2009 (DAO.001.11364), 15 December 2009 (DAO.001.11428) and 16 April 2010 (DAO.001.11947); and General Newsflash notices on 5 January 2009 (DAO.001.08773), 30 April 2009 (DAO.001.08786), 17 September 2009 (DAO.001.08805) and 27 November 2009 (DAO.001.08820).
- ⁹⁰ In 2009 one of the first searches by an undermanager of 25–30 miners about to go on shift produced an estimated 18–20 restricted articles, including cigarettes, matches and lighters, cans and two cellphones. Pike also had instances of cigarette lighters left in the back of driftrunners, cigarette butts in the tunnel, a miner wearing a battery-operated watch underground, and other restricted items such as aluminium and glass vessels found underground: Reginald Matthews, witness statement, 29 November 2011, MAT0001/13, para. 77; Adrian Couchman, witness statement, 28 November 2011, COU0001/22, para. 119; Neville Rockhouse, transcript, p. 4247.
- ⁹¹ Pike River Coal Ltd, Contraband Searches Conducted, DAO.004.00002; Brett Murray, transcript, p. 4426.
- ⁹² Pike River Coal Ltd, Mine Manager's Rules, 13 September 2010, INV.03.25773/24–25.
- ⁹³ Pike River Coal Ltd, Training Module – Contraband Rules, May 2010, EXH0051/1; Brett Murray, transcript, p. 4423; Photograph, 'No Contraband Permitted Underground' sign, EXH0052/1.
- ⁹⁴ David Reece, transcript, pp. 4668–69.
- ⁹⁵ Royal Commission on the Pike River Coal Mine Tragedy, Summary of the Reports, CAC0114/20–24.

- ⁹⁶ Police/DOL interview, 8 April 2011, INV.03.17556/1–22. (The commission decided, by majority, to withhold the name of the worker concerned. Commissioner Bell dissented.)
- ⁹⁷ Albert (Alan) Houlden, witness statement, 14 November 2011, FAM00053/9, paras 45–47.
- ⁹⁸ Reginald Matthews, witness statement, 29 November 2011, MAT0001/11, para. 68.
- ⁹⁹ Albert (Alan) Houlden, witness statement, 14 November 2011, FAM00053/10, paras 50–51.
- ¹⁰⁰ Health and Safety in Employment Act 1992, ss 16, 18.
- ¹⁰¹ Email, Adrian Couchman to Andrew Sanders, 19 May 2010, attaching Pike River Coal Ltd, PRCL Contractor Management Overview, DAO.003.01788/1–2.
- ¹⁰² Adrian Couchman, witness statement, 28 November 2011, COU0001/13, para. 71.
- ¹⁰³ Department of Labour, Investigation Report, DOL3000130010/266, paras 6.14.1–8.
- ¹⁰⁴ Adrian Couchman, transcript, p. 3768.
- ¹⁰⁵ Adrian Couchman, witness statement, COU0001/14, para. 76; Adrian Couchman, transcript, p. 3768–69.
- ¹⁰⁶ Adrian Couchman, transcript, p. 3769.
- ¹⁰⁷ Pike River Coal Ltd, Corporate Safety Manual: Section 8.1, June 2008, DAO.001.08536/1–5.
- ¹⁰⁸ *Ibid.*, section 8.1, DAO.001.08536/3.
- ¹⁰⁹ *Ibid.*, section 8.4, DAO.001.08548/2.
- ¹¹⁰ *Ibid.*, section 8.8, DAO.001.08287/1–3.
- ¹¹¹ Pike River Coal Ltd, SubbyPack – Contractor's Site Specific Safety Management Plan, 2008, ROCK0011.
- ¹¹² *Ibid.*, ROCK0011/7.
- ¹¹³ Department of Labour, Investigation Report, DOL3000130010/260, para. 6.10.5; Jonathan (Joe) Edwards, witness statement, 24 May 2011, MCD0001/28, para. 124.
- ¹¹⁴ Department of Labour, Investigation Report, DOL3000130010/269–81.
- ¹¹⁵ For example, Douglas White (McConnell Dowell), Jimmy Cory (VLI) and Michael Scott (electrical contractors): Department of Labour, Investigation Report, DOL3000130010/260, para. 6.10.6.
- ¹¹⁶ Neville Rockhouse, witness statement, 13 November 2011, ROCK0002/64, para. 246.
- ¹¹⁷ Terence Moynihan, Police/DOL interview, 21 April 2011, INV.03.19308/25–33; Rem Markland, Police/DOL interview, 5 April 2011, INV.03.17730/31–34.
- ¹¹⁸ Neville Rockhouse, witness statement, ROCK0002/65–67, paras 253–55; Terence Moynihan, Police/DOL interview, 21 April 2011, INV.03.19308/25–33; Matthew Coll, Police/DOL interview, 20 April 2011, INV.03.19129/14–16; Pike River Coal Ltd, Corporate Safety Manual: Section 8.1, June 2008, DAO.001.08536/3.
- ¹¹⁹ *Ibid.*, DAO.001.08536/3.
- ¹²⁰ Neville Rockhouse, witness statement, ROCK0002/66–67, paras 256–58; Terence Moynihan, Police/DOL interview, 21 April 2011, INV.03.19308/26.
- ¹²¹ Pike River Coal Ltd, Pike River Coal Safety Audit Schedule V1, 12 August 2010, DAO.010.00316/2; Pike River Coal Ltd, Corporate Safety Manual: Section 8.5, June 2008, DAO.001.08557/1.
- ¹²² Department of Labour, Investigation Report, DOL3000130010/267–69, paras 6.15.1–15.
- ¹²³ Pike River Coal Ltd, Corporate Safety Manual: Section 8.1, June 2008, DAO.001.08536/3.
- ¹²⁴ Department of Labour, Investigation Report, DOL3000130010/264, para. 6.13.9; Simon Donaldson, Police/DOL interview, 11 July 2011, INV.03.24207/7–8; Shaun Whitau, Police/DOL interview, 4 February 2011, INV.03.12950/21–22.
- ¹²⁵ Rem Markland, Police/DOL interview, 5 April 2011, INV.03.17730/45; Craig Bisphan, Police/DOL interview, 12 July 2011, INV.03.24109/49.
- ¹²⁶ One contractor working at Pike River since 2009 said he was not instructed to and did not sign in at the control room; instead he believed that a microchip access button he was provided registered his whereabouts. He had lost his tag for the board about four months before the explosion and had not been given a new one: Phillip Smith, Police/DOL interview, 20 October 2011, INV.03.31617/33–34.
- ¹²⁷ Dene Murphy, Police/DOL interview, 28 January 2011, INV.03.18581/74.