

Qualifications, training and competence

Introduction

1. This chapter reviews what is needed to improve the competency of the mining workforce and ensure that New Zealand's coal industry can attract and retain the skilled people it needs.
2. The Health and Safety in Employment (Mining Administration) Regulations 1996 needs reform to better define the roles, accountabilities and qualifications required. The new regulations should be aligned with those in Australia so that qualified and competent workers can move easily between the two countries.
3. At the same time the regulator needs to work closely with industry and relevant training organisations to ensure that the qualifications competency and training framework meets regulator and industry requirements. Chapter 26, 'An effective regulatory framework', recommends changes to the 1999 underground regulations, which will also lead to greater alignment with Australia and help to shape the new training curriculum.

Existing legal requirements

4. The legislation imposes a duty on employers to provide training and supervision.¹ In the mining sector these duties are buttressed by safety regulations prescribing certain mandatory competency standards (certificates of competence) for safety critical roles in mines.² In underground coal mines these roles include mine manager, mine deputy, mine underviewer, gas tester, mine surveyor and winding engine driver.
5. These regulatory requirements are based on a longstanding appreciation that the qualifications and competencies of the workforce are central to managing hazards. Indeed, a suitably trained workforce is one of the first lines of defence against a major accident.³

Key issues

Deficiencies and gaps in the regulations

6. The regulatory system should drive training programmes that produce a qualified and competent workforce which is aware of the major risks in underground coal mining and how to manage them.
7. Deficiencies and gaps in the regulations are holding back the development of the workforce. Although the regulations require employers to ensure that every employee holds a current certificate of competence for their position,⁴ they do not state the safety critical duties of position holders in sufficient detail or create role specific accountabilities.⁵ All of these are spelt out in Queensland regulations.⁶
8. The New Zealand regulations have failed to keep pace with comparable thinking overseas, most recently, the regulatory approach recommended by the Australian National Mine Safety Framework (the safety framework). The Council of Australian Governments' Standing Council on Energy and Resources is overseeing the implementation of this framework. It aims to achieve a nationally consistent occupational health and safety regime for the Australian mining industry.⁷
9. The safety framework calls for rules to specify the key positions necessary for the safe operation of a mine. People's functions and required competencies also need to be specified in legislation or regulation.⁸ By contrast, the New Zealand regulations are narrow in scope and lack detail, which causes confusion.

10. DOL proposes that new regulations should introduce new statutory roles, including a site senior executive and a ventilation officer, and that a general review of the competency requirements should follow.⁹ The commission has concluded that this much needed regulatory reform should focus on three objectives: increasing the scope of regulated roles to ensure alignment with Australia; clearly prescribing the roles, responsibilities and accountabilities of duty holders; and ensuring that all new and inexperienced workers are given appropriate training and supervision.
11. The scope of the new regulations should be generally aligned with Australian requirements. The regulations should define competencies up to and including management and supervisory levels. This will require regulation to move beyond the current statutory positions: a statutory ventilation officer is urgently needed. Mine manager and other key technical and supervisory roles should have clear accountabilities and penalties for non-compliance.
12. The new regulations should support these changes by setting out detailed requirements for new and inexperienced workers to be given basic training and supervision, in line with the general provisions in the Health and Safety in Employment Act 1992 (HSE Act) on training and supervision.¹⁰ Operators should keep a training/supervision register for periodic inspection by the regulator.

Insufficient oversight from the regulator

13. Changes should be made to the relationship between the regulator and the recognised industry training organisation for the coal sector – the Extractive Industry Training Organisation (EXITO). There is not enough regulator oversight of the qualifications competency and training framework.
14. Presently, DOL does not oversee or provide input into the curriculum; nor does it take any active role in the accreditation of competencies for any of the critical safety roles defined in the regulations. This task has been left to EXITO and to providers teaching individual unit standards.¹¹ The relationship between DOL and EXITO is largely confined to the administration of a register of certificate holders.
15. In keeping with New Zealand's devolved system of industry training, the coal industry itself has largely determined workforce skill standards through the work of EXITO. In addition to setting the curriculum and assessment requirements for regulated safety roles in mines, EXITO has worked with employers to develop national qualifications for quarrying and mining industries both above and below ground.¹² Overall the mining sector's qualifications appear reasonably extensive and have a strong focus on health and safety.
16. Although there are undoubted benefits to the industry itself leading the development of skill standards, there should also be regulator oversight of workforce competency.
17. The current model, in which skill development and setting is carried out by the industry body largely in isolation from government, has not provided sufficient quality assurance. The regulator and the industry need to have utmost confidence in the qualifications competency and training framework.

A more rigorous curriculum and assessment process

18. The regulator should adopt a greater leadership role in the sector to produce a competent, well-trained workforce. This will require closer working relationships between the regulator, EXITO, training providers and employers.
19. No regulator can oversee the qualifications and training framework in isolation. The Australian experience is that regulators can have an important oversight role through improving working relationships with industry and training providers. Queensland's mine safety law and regulation provides for a tripartite advisory committee, which recognises, establishes and publishes the competencies that qualify a person to perform health and safety duties under mining law.¹³ New Zealand needs to align itself with these practices.
20. Work should begin as soon as possible on reviewing the content of the curriculum. The scope of the review should be guided by the safety critical roles defined in the new regulations and by benchmarking New Zealand unit standards with Australian equivalents. As well as technical competency, the curriculum needs to ensure competency in key general management skills, including communication, planning and risk management. Foreign-

trained geologists, electrical engineers and other specialists should undertake New Zealand-specific training to acclimatise them to local conditions.

21. To confirm that training is effective, the regulator and EXITO should review and update final assessment processes for management and supervisory roles. These processes should align with Australian practices and include oral examinations to assess theoretical knowledge and its practical application. This is common practice in Australia's leading mining states.¹⁴
22. The assessment should be conducted once the required unit standards and practical experience have been gained. Independent oral examinations for the statutory manager, key technical roles and supervisors should be the norm. The regulator should monitor the implementation by employers and providers of basic industry training, including supervision of new and/or inexperienced workers.

Public funding for industry training

23. In the challenging environments typical of high-hazard industries health and safety training cannot be separated from other training needs. Existing skill standards and qualifications reflect this. The coal industry, in partnership with EXITO, has driven the development of standards that contain strong health and safety themes.¹⁵ In high-hazard sectors, industry training with a strong health and safety emphasis is essential.
24. The government is presently reviewing its industry training policy.¹⁶ The commission recommends that, for high-hazard sectors, funding is available for training with a strong health and safety emphasis.¹⁷ This includes funding for short health and safety courses that are a regulatory requirement. Such courses contribute to the achievement of wider vocational qualifications. Taxpayer provided resources for industry training are substantial.¹⁸

Alignment with international standards

25. The labour market for skilled and experienced mine managers, specialists and workers is global. To maintain a qualified and competent mining workforce in New Zealand, skill standards and industry training need to be generally aligned with international standards and practice. Close alignment with Australian standards makes sense, owing to the dominance of the Australian mining sector and the free flow of capital, skilled mining personnel and technologies across the Tasman.
26. Ensuring ease of labour market movement across borders should not be at the expense of minimum standards. New Zealand officials should therefore work in partnership with Australian regulators and standard setters to ensure qualifications, skill standards and industry training are robust and comparable on both sides of the Tasman. This should help the New Zealand mining sector to compete with Australia for skilled labour and expertise.
27. Existing processes developed by EXITO to assess the competency of overseas workers recruited to New Zealand mines require strengthening. There should be no scope for any 'back door' entry into labour markets because of inconsistent regulatory and administrative requirements between the two countries.
28. As part of this strengthening work the regulator should collaborate with Australian counterparts to develop joint Australia-New Zealand accreditation processes. The goal would be a consistent approach to examining competency of candidates seeking appointment to safety critical management, technical and supervisory positions. A joint Australia-New Zealand board of examiners should certify competency in safety critical roles.
29. Whatever trans-Tasman model is adopted, it must provide greater assurance that workers from third world countries have equivalent competencies to those required in Australia and New Zealand.

Working with Australia

30. An important part of the cross-jurisdictional work in the Australian safety framework is 'competency support' for the industry. This work involves the development of a standard set of competencies for safety critical mining roles identified in state legislation, reaching agreement on how those competencies are demonstrated, and identifying a process that allows states to implement the agreed national standards in a manner consistent with their respective legislation.¹⁹

31. To capture the benefits of 'competency support' for industry, New Zealand officials need to develop a close working relationship with leading state mining regulators, including relevant advisory committees and boards of examiners, to achieve the following goals:
- regulatory alignment with respect to competency requirements and qualifications, including supervision requirements for uncertified staff holding statutory roles;
 - benchmarking the consistency of New Zealand and Australian unit standards developed by respective industry training organisations;
 - developing a detailed New Zealand mining training standard comparable to Queensland's Recognised Standard 11: Training in Coal Mines 2010; and
 - working towards the development of joint accreditation processes including an Australia-New Zealand board of examiners.

Occupational health and safety consultants

32. Specialist consultants and firms have an important role to play in the New Zealand occupational health and safety system. The advice of health and safety professionals has been shown to contribute positively to corporate safety performance.²⁰
33. In the United Kingdom recent reforms have resulted in the establishment of an occupational safety and health consultants' register, which enables consultants who have met certain standards to market themselves accordingly. Registered consultants must abide by a code of conduct, provide sensible and proportionate advice, hold professional indemnity insurance and be committed to continuing professional development.²¹
34. Similarly, the Australian Safety Institute operates a registered safety professional scheme that certifies members' professional competence.²² The OHS Education Accreditation Board also verifies courses offered in Australia to ensure they are based on strong scientific and technical concepts and delivered by competent instructors.²³
35. In 2006 the National Occupational Health and Safety Advisory Committee (NOHSAC) raised concerns about the capability of occupational health and safety consultants in New Zealand.²⁴ Similar concerns were raised by others during subsequent reviews. The government's National Action Agenda 2010–13 adopted a specific priority to strengthen the competency framework for health and safety professionals.²⁵
36. There is no research showing the magnitude and scope of competency problems, but submissions to the commission by a leading health and safety consultancy highlighted the low level of formal qualifications required, while a leading academic in 'human factors' noted that anyone can claim 'experience' as the basis for calling themselves a health and safety professional.²⁶
37. Raising the professional standards of health and safety consultants is important and should be part of the regulator's work programme. This work should be led by the regulator and involve the Accident Compensation Corporation (ACC), leading consultants, academics and relevant professional organisations and tertiary training providers.²⁷ Consideration should be given to the merits or otherwise of greater industry self-regulation and co-regulation with government. Requirements for continuing professional development should be defined.

Recommendation 12:

The regulator should supervise the granting of mining qualifications to mining managers and workers.

- The regulator should lead the work to strengthen standards so that they are comparable with those of Australia.
- The regulator should work with Australian counterparts towards developing a joint accreditation process with Australia and an Australia/New Zealand board of examiners.

- Additional statutory roles and qualifications are required in new regulations, including a statutory ventilation officer and an agreed level of industry training and supervision for all new or inexperienced workers.
- The regulator should work with the Accident Compensation Corporation and others on raising the standards of health and safety consultants.

ENDNOTES

¹ Health and Safety in Employment Act 1992, s 13.

² Health and Safety in Employment (Mining Administration) Regulations 1996.

³ SafetyWise Solutions Pty Ltd, Incident Investigation Reference Guide, Issue 4, October 2010, section 7, p. 5.

⁴ Health and Safety in Employment (Mining Administration) Regulations 1996, regs 8, 15.

⁵ Department of Labour, Pike River Mine Tragedy 19 November, 2010: Investigation Report, [2011], DOL3000130010/240, paras 5.8.5–5.8.6.

⁶ Coal Mining Safety and Health Regulation 2001 (Qld).

⁷ Australian Department of Resources, Energy and Tourism, National Mine Safety Framework, 16 August 2012, <http://www.ret.gov.au/resources/mining/framework/Pages/default.aspx>

⁸ National Mine Safety Framework Steering Group, National Mine Safety Framework: Implementation Report, 2008, CAC0170/19.

⁹ *Ibid.*, DOL4000010005/45–48, paras 178–92.

¹⁰ Health and Safety in Employment Act 1992, s 13.

¹¹ Robin Hughes, transcript, pp. 248–50; Kevin Poynter, transcript, p. 2995.

¹² Extractive Industry Training Organisation, Adding Value to Industry Training with On-job Training and National Qualifications, pp. 7–12; Extractive Industry Training Organisation, Extractive Sector Industry Training Plan, 2009–2011, pp. 6–8. Both available at: <http://exito.org.nz/industry-info/extractive>; See also: <http://www.industrytraining.co.nz/OurTraining/Industry+Courses/Surface+++Underground+Mining.html>

¹³ Coal Mining Safety and Health Act 1999 (Qld), s 76 (Functions of committee), s 80 (Appointment of members).

¹⁴ For New South Wales see: <http://www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications>

¹⁵ Extractive Industry Training Organisation, Adding Value to Industry Training, pp. 7–12; Extractive Industry Training Organisation, Training Plan, 2009–2011, pp. 6–8. Both available at: <http://exito.org.nz/industry-info/extractive>

¹⁶ Ministry of Education, Review of Industry Training, 2012. <http://www.minedu.govt.nz/NZEducation/EducationPolicies/TertiaryEducation/PolicyAndStrategy/ReviewIndustryTraining.aspx>

¹⁷ Tertiary Education Commission, Determination of Design and Funding Mechanism, 2012, paras 30–31. <http://www.tec.govt.nz/Documents/Ministerial%20determinations/determination-ITF-ITO-MA-2012.pdf>

¹⁸ Actual expenditure for industry training in 2011–12 was \$109 million, well below the appropriation of \$129m: <http://www.treasury.govt.nz/budget/2012/ise/v2/ise12-v2-pia-tered.pdf>

¹⁹ The minister of energy and resources is currently a full member of the Council of Australian Governments' Standing Council on Energy and Resources. The Standing Council is responsible for overseeing this work.

²⁰ A.P. Smith and E.J.K. Wadsworth, Safety Culture, Advice and Performance, Report Submitted to the IOSH Research Committee, 2009, p. 9, http://www.iosh.co.uk/books_and_resources/published_research.aspx#Research

²¹ Occupational Safety and Health Consultants Register, About OSHCR, <http://www.oshcr.org/page/AboutOSHCR>

²² Safety Institute of Australia Ltd, How to Become an RSP, 2012, <http://www.sia.org.au/membership/safety-professional>

²³ Australian OHS Education Accreditation Board, About the Australian OHS Education Accreditation Board, 2012, <http://www.ohseducationaccreditation.org.au/about.aspx>

²⁴ Allen & Clarke Policy and Regulatory Specialists Ltd, Occupational Health and Safety in New Zealand (NOHSAC Technical Report 7), 2006, p. 65, <http://ohsnetnz.org.nz/documents/NOH11098TechRep7Web.pdf>

²⁵ Department of Labour, Review of Workplace Health and Safety Strategy for New Zealand to 2015: Summary of Written Submissions, 2009, p. 15; Department of Labour, National Action Agenda 2010–2013, March 2011, DOL0020010015/9.

²⁶ Impac Services Ltd, Submission by Impac Services Ltd to Phase 4 of the Pike River Royal Commission, 9 March 2012, IMP0001/8; Kathleen Callaghan, witness statement, 23 March 2012, FAM0058/7, para. 34.

²⁷ New Zealand's leading professional organisations include the New Zealand Institute of Safety Management and the New Zealand Safety Council. Impac Services Ltd and Massey University offer degree level qualifications.