

Hard Rock Mine Ventilation 2013

26 - 28 February, 2013, Holiday Inn, Perth, Australia



Australian Mine Ventilation Legislation

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Australian Mine Ventilation Legislation

This presentation will examine Australian Mine Ventilation Legislation under these topic heads:

- Understanding the VO's legislative obligation
- Understanding the different state ventilation legislative requirements – comparing and contrasting
- Creating a national legislative standard
- Harmonisation of mining legislation
- Creating a unified workplace health and safety scheme





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Western Australia

- WA did not adopt the Commonwealth Model Work Health and Safety Act 2011 (WHS Act). The *Occupational Safety and Health Act 1984* (WA) remains in force.
- The *Mines Safety and Inspection Act 1994* (WA) and *Mines Safety and Inspection Regulations 1995* (WA) apply to all mining methods and all resources.
- Part 9, of the Regulations governs ventilation and control of dust and atmospheric contaminants.
- VO must enter in the ventilation log book all records required under Part 9, and ensure that each complete entry is dated and signed.
- The National Engineering Registration Board (NERB) says that WA is considering the Qld model for registration of engineers under the *National uniform scheme for the regulation of engineers*.



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Queensland

- Queensland did adopt the WHSA. However, pursuant to Schedule 1(2) of *Work Health and Safety Act 2011* (Qld) the WHSA does not apply to a coal mine, a hard rock mine or petroleum and gas operating plant.
- The *National uniform scheme for the regulation of engineers* and the definition of “professional engineering service” appears to follow the existing Qld legislation for RPEQ and BPEQ.
- The *Mining and Quarrying Safety and Health Regulation* applies to quarries and both underground and open cut hard rock mines. Regulation 48 provides that ventilation at a mine be of a sufficient volume, velocity and quality to achieve a healthy atmosphere.



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New South Wales

- NSW restricts the application to mining of the WHSA.
- “Coal workplaces” and “mining workplaces” are excluded from the effect of the WHSA section-by- section.
- *Work Health and Safety Regulation 2011* (NSW) obligations relating to ventilation at workplaces do apply to mines.
- Provisions for ‘confined spaces’ do apply to the surface parts of open cut and underground mines that are not “mine workings”.
- *Mine Health and Safety Regulation 2007* (NSW) applies to underground hardrock mines.



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Northern Territory

- The NT has adopted WHSA.
- The *Work Health and Safety (National Uniform Legislation) Regulations 2011* (NT) include Chapter 10 dealing with mining and imposing some duties upon the mine operator including the requirement to give the regulator a risk management plan certified by a competent person.
- NT already requires registration of “design engineers” and “certifying engineers” for building work and will soon adopt the *National uniform scheme for the regulation of engineers* so then mining work, including ventilation work, will come within the definition of “professional engineering service”.



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South Australia

- On 01 January 2013, SA adopted the WHSA but with a Mining and Quarrying OH&S Committee, with power to make regulations.
- The *Mines and Works Inspection Act 1920* (SA) and *M&W Regulations 1998* (SA) have *not* been repealed.
- The *WHSA Regulations 2012* (SA) include Chapter 10 which applies to quarries, open cut and underground mines regardless of resource.
- The ventilation obligations are placed upon the mine manager. No requirement for a VO or a special ventilation competency for the mine manager.



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Tasmania

- On 01 January 2013, Tasmania adopted the *WHS Act 2012 (TAS)* and the *Work Health and Safety (Transitional) Regulations 2012 (TAS)*, but not Chapter 10 of the Model WHS Laws dealing with mining.
- The *Mines Work Health and Safety (Supplementary Requirements) Act 2012 (Tas)* and *MWHS (SR) Regulations 2012* apply to hardrock and coal mines, both open cut and underground.
- The Site Senior Officer provisions use some of the language in the Qld legislation for Site Senior Executive, but is not a complete emulation.
- Mine operator responsible for ventilation. Standards for mine ventilation. No ventilation competency demanded.



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Victoria

- Victoria has *not* adopted the WHSA. The regulation of all mines for all mining methods and all resources is left to the *Occupational Health and Safety Regulations 2007* (Vic). The provisions relating to mine ventilation contained in Part 5.3 are encapsulated in seven sentences.
- The principal obligation is to ensure “the air does not pass through so many work areas that it becomes unfit to breathe”. The slightly more comprehensive provisions dealing with confined spaces do not apply to mines.



Australian Capital Territory

- The ACT adopted the *WHS Act 2011* (ACT), but the *WHS Regulations 2011* (ACT) do not include Chapter 10 applying to mining.
- The ACT will adopt the *National uniform scheme for the regulation of engineers* (Bill drafted).





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Commonwealth

- The *WHSA 2011* [Cth], 01 January 2012. The *WHS Regulations 2011* [Cth], do not include Chapter 10 –Mining.
- Onshore and in coastal waters, the states and territories own and allocate mineral and petroleum rights, administer operations, including OH&S and collect royalties on production.
- Beyond the coastal waters (seaward of 3 three nautical miles of the territorial sea) to the outer limits of Australia's continental shelf, mineral and petroleum rights are held by the Commonwealth, but administered jointly with the relevant state or territory.
- The Commonwealth is not contemplating adopting the *National uniform scheme for the regulation of engineers*



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Australian Mine Ventilation Legislation

- Alignment of mining legislation, rather than Harmonisation
- All States say they want a national legislative standard, but do not want to lower their own standards
- Creating a unified workplace health and safety scheme for your workplace.
- Integrated Safety and Health Management Systems
- Management Excellence



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National uniform scheme for the regulation of engineers and Registered Professional Engineer Qld

The National scheme will emulate the Qld legislation. The Board of Professional Engineers of Queensland administers the *Professional Engineers Act 2002* (Qld) and the *Professional Engineers Regulations 2003* (Qld).

- Compulsory registration of professional engineers in Queensland;
- Restricts the use of the words “professional engineer” and “consulting engineer” to registered professional engineers.



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Registered Professional Engineer Qld (RPEQ)

- If you want to know if someone is a Registered Professional Engineer Queensland (RPEQ), there is a searchable database of maintained by the Board of Professional Engineers at:

http://www.bpeq.qld.gov.au/imis15/BPEQ/Finding_an_RPEQ/Search_Register/BPEQ/

- The Act provides for a complaint process about an engineer's professional conduct.





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Registered Professional Engineer Qld (RPEQ)

What mining, oil and gas activities are covered?

Schedule 2 of the Act defines professional engineering service as “an engineering service that requires, or is based on, the application of engineering principles and data to a design, or to a construction or production activity, relating to engineering, and does not include an engineering service that is provided only in accordance with a prescriptive standard”.



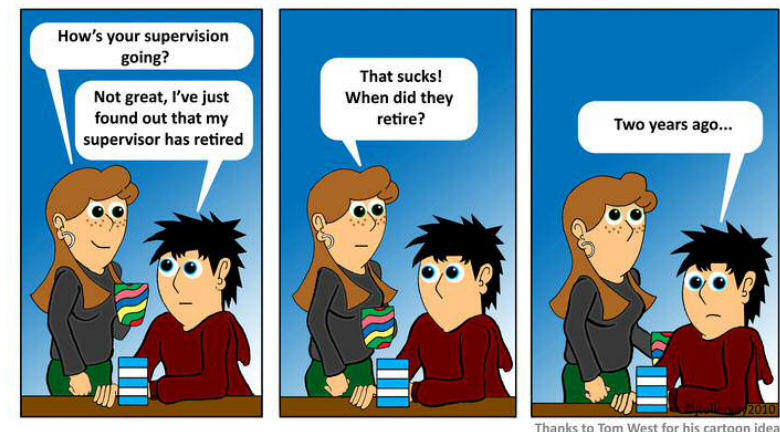


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Registered Professional Engineer Qld (RPEQ)

Section 115, of the Act prohibits:

- anyone from providing professional engineering services unless they are registered; or
- are working under the direct supervision of an RPEQ registered in the same area of engineering; and
- only then if the RPEQ directs the person in the carrying out of the services and oversees and evaluates the carrying out of the services by the person.





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Registered Professional Engineer Qld (RPEQ)

- **The Wivenhoe Dam:** The Board of Professional Engineers Queensland commenced a prosecution of Wivenhoe Dam engineer John Ruffini under the Act for providing a professional engineering service while not being registered.
- **Shirtcliff/Fisher:** Engineers Australia, which oversees the registration of civil engineers began an investigation as did the University of NSW. A William Fisher RPEQ is on the searchable database of Registered Professional Engineers so they perhaps are also investigating with a view to a further prosecution.

Pic: David Kapernick



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Registered Professional Engineer Qld (RPEQ)

Why do you need to be registered?

- The Board of Professional Engineers may prosecute if your workplace does not have an RPEQ on site under the auspices of whom all the *professional engineering services* are being provided.
- The successful prosecution of Wivenhoe Dam engineer John Ruffini under the Act will no doubt add weight to the class action for civil damages against the Qld State government. The lawyers are sure to use “employing an unregistered engineer” on the Wivenhoe Dam as further evidence of negligence.



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Registered Professional Engineer Qld (RPEQ)

How do you get registered?

- The AusIMM has been approved under the Act to assess competencies and run the continuing professional development schemes in the **areas of engineering** or disciplines of Mining, Environmental, Geotechnical (Mining) and Metallurgical. No Ventilation Engineer **area of engineering**. "Mining Ventilation Professionals" come under mining.
- The AusIMM Chartered Professional Accreditation program and its relationship to the RPEQ Assessment and Registration found on the AusIMM website at:
<http://www.ausimm.com.au/content/default.aspx?ID=318>



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Registered Professional Engineer Qld (RPEQ)

How do you get registered?

Applicants wishing to be assessed for RPEQ need to meet the following criteria under The AusIMM system:

- A minimum four year degree in an Engineering discipline. Where a degree less than four years is held the CP Board may consider additional education and training as equivalence to a four year degree.
- A minimum five years of relevant professional experience in the discipline for which accreditation is being sought.





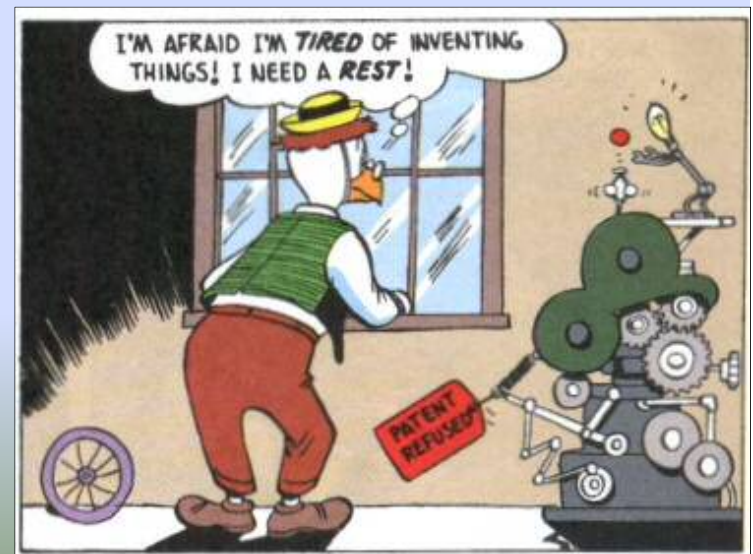
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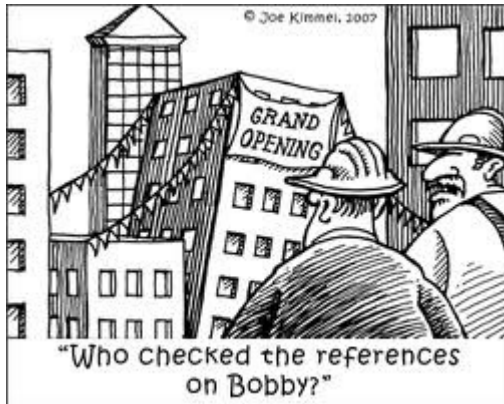
Registered Professional Engineer Qld (RPEQ)

How do you get registered?

- Engineers Australia is the accreditation and assessment entity for the Areas of Engineering:
Aerospace, Biomedical, Building Services, Chemical, Civil, Electrical, Environmental, Management, Mechanical, Structural, Naval Architecture, Information Telecommunications and Electronics Engineering (ITEE) and Petroleum

- An applicant must apply for accreditation under the Engineers Australia Approved Assessment Scheme:
<http://www.engineersaustralia.org.au/professional-development/echartered>





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Registered Professional Engineer Qld (RPEQ)

How do you get registered?

- After your successful assessment you must apply to the Board of Professional Engineers for registration as an RPEQ.
- The accrediting entities, Engineers Australia or the AusIMM notify the Board of Professional Engineers of your accreditation and assessment.
- You are then registered in the area of engineering for which you are accredited.
- You must make a separate RPEQ application for each area of engineering. RPEQ Mining and RPEQ Geotech (Mining).



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Registered Professional Engineer Qld (RPEQ)

Maintaining & updating registrations & competencies

- Maintaining and updating registrations and competencies is prescribed by legislation and by the CPD programs of accrediting entities such as Engineers Australia, the AusIMM, the MMAA.
- Section 54AA of the *Petroleum and Gas (Production and Safety) Regulation 2004* (Qld) provisions relating to “undergoing training” , “direct supervision” and “competent person”.



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Breaches of legislative requirements make liable for **criminal prosecution** and **civil damages** and affect:

- the workers who are unregistered or lack the competencies; and
- the companies that employ them knowing they are not registered or lack the competencies.



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Thank You

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