

OVERVIEW OF MINING LEGISLATIVE FRAMEWORK CHANGES

White Paper

This year the Work Health and Safety (Mines) Act 2013 and Work Health and Safety (Mines) Regulation 2014 replace the Coal Mine Health and Safety Act 2002 and the Mine Health and Safety Act 2004 and associated regulations. The laws are NSW based, but with changes planned for WA and QLD legislation, increased harmonisation between the major mining states will be achieved.

This paper outlines the requirements of the new legislation including the key features and impact of the changes for applicable operations, with particular attention paid to electrical requirements.

Overview

The Work Health and Safety (Mines) Act 2013 and Work Health and Safety (Mines) Regulation 2014 came into law February 1st 2015, replacing the Coal Mine Health and Safety Act 2002 and the Mine Health and Safety Act 2004 and associated regulations. These laws support the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2011, providing additional direction specific to mines.

The new laws are applicable at all coal, metalliferous, opal and gemstone mines, and quarries. A 'mine' is a workplace where mining operations occur, namely mining activities and activities in connection with mining.

Mining activities refers to such undertakings as:

- Extracting minerals from the ground
- Injecting minerals into the ground but only where the primary purpose of the injection is to inject a mineral into the ground or to return a mineral to the ground or
- Exploring for minerals.

Activities in connection with mining (provided they are carried out on a site where mining activities occur or in the vicinity of such a site) include the construction of a mine site, as well as preparing or processing and handling or storage of extracted materials.

Exclusions exist for the application of these new laws, namely:

- Fossicking or an activity carried out in relation to the extraction of minerals on private land and non-commercial use of the owner of the land
- Where the extraction of minerals is incidental to the activity, for example, civil works such as tunnelling to create a road and
- Certain activities that are subject to regulation under separate safety laws.

Additionally, small opal and gemstone mines are exempt from many provision of the new legislation, and simplified management plans, considering specific risks may be considered.

Exemptions which were applied under former law are taken to continue in force in the same terms as previously legislated. They will cease on whichever occurs earlier:

- Nine months after commencement of the regulation
- The regulator revokes the exemption
- At the end of the specified period if applicable
- If no period was specified then at the end of five years from the date of the exemption being granted.

What has changed

The fundamental safety requirements prescribed in the new legislation are broadly similar to previous laws. There have been some changes in terminology when referring to safety management plans (previously differing between coal and metalliferous mines), mechanical and electrical engineering control (instead of management) plans, and safety and health representatives (previously check inspectors in coal mining).

Changes have been made to the requirements for notifying the regulator of incidents and injuries, high risk activities (for example, live electrical work), mine operators, as well as to other information required by the regulator including keeping a mine record.

Key features

Persons conducting a business or undertaking (PCBUs) have a primary duty to ensure the health and safety of all whose work activities they influence or direct, and must manage the risks associated with mining operations by:

- Complying with the specific requirements under the Work Health and Safety (Mines) laws
- Identifying foreseeable hazards, ensuring there are competent people to assess the risk
- Eliminating and minimising risks as far as reasonably practicable
- Maintaining and reviewing control measures

The management of risk includes developing and implementing a documented safety management system. Planning is a critical part of risk management, and the safety management system will usually include specific plans for hazards and risks. In particular, principal control plans are required for:

- Emergencies
- Electricity
- Health
- Plant and other mechanical equipment
- Explosives

Additionally, specific controls are prescribed for electrical safety, air quality, ventilation and dust, belt conveyors and shaft winders and coal dust explosion and spontaneous combustion.

The new legislation applies to all types of mining, but not all requirements apply to all mines. Specific controls are grouped to include those applying to all mines, underground mines, underground coal mines and all coal mines.

Electrical safety obligations

The fundamental obligations under the new law are similar to those previously required for coal mining under the previous legislation, in relation to electrical safety.

Clause 32 of the Work Health and Safety (Mines) Regulation 2014 outlines the specific requirements for managing the risks associated with electrical safety. In particular the mine operator must ensure that:

- Electrical work at the surface and testing of electrical circuits be carried out in accordance with the Wiring Rules (AS/NZS3000).
- Adequately rated switchgear is provided to switch off and restore power should a fault occur and not allow automatic restoration should a fault persist.
- Clearly labelled isolation facilities are provided for all electrical plant and that operators are competent in using this facility.

- Plans of all electrical installations are maintained, showing location, rating and operation of electrical equipment.
- All underground electrical equipment, as well as mobile electrical plant fed by flexible trailing or reeling cables at all mines, be protected to ensure as far as reasonably practicable the most likely type of fault is a low energy fault, with provision for protection including:
 - *Earth fault limitation*
 - *Earth fault lockout*
 - *Earth continuity*
- All mains powered hand held devices include earth leakage of no more than 30mA, and that an effective earth system is provided at the mine to minimise as far as reasonably practicable touch and step potentials.
- Overcurrent and short circuit protection is provided on all circuits, including sub-circuits.
- Earth leakage protection is included on all sub-circuits, distribution and control circuits, excepting extra-low voltage or isolated circuits.
- Additional requirements for the provision of training, information and instruction for safe operation and maintenance of equipment.
- Electrical safety and protection requirements and implications this may have for design changes for any installation should this be required (for example, for earth fault limitation).
- Ensuring all electrical infrastructure having an installed capacity above 1MW, or voltage above 1000V at the mine is inspected, installed and commissioned by appropriately qualified and competent personnel, including the appointment of relevant statutory positions for electrical signoff.

Transitional arrangements have been put in place to allow operators to review the new laws and take steps to ensure they comply. Up to two years is provided for the mine operator to comply with the requirements for the safety management system, principal mining hazard management plans and principal control plans (provided the operator complies with the specific provision of the current legislation). Licences and certificates of competence granted under previous laws will continue to be recognised, as will certain restriction, direction or exemptions.

Implications of the change

A process of audit and assessment of the current safety systems in place at an operation is required to ensure that the requirements of the new legislation are met. This will ensure that the appropriate controls are in place for managing risk.

Mine operators may need to consider the development of safety management plans and principal control plans, as well as the ensuring the registration of plant and plant designs.

Other aspects which may need to be considered include:

- Appropriate application of Codes of Practice and Standards in relation to new legislation, to ensure that risk is managed to as low as reasonably practicable.

Summary

The Work Health and Safety (Mines) Act 2013 and Work Health and Safety (Mines) Regulation 2014 replace the Coal Mine Health and Safety Act 2002 and the Mine Health and Safety Act 2004 and associated regulations. This legislation will provide increased harmonisation between the major mining states.

While the requirements of the new legislation are similar to the previous laws, there are changes which will need to be considered across mines. Transitional arrangements are in place to allow for mine operators to review the new legislation in conjunction with existing systems.

More information about the new legislation and its application can be found at the NSW Department of Resources and Energy website: www.resourcesandenergy.nsw.gov.au/safety