

## Mining engineering manager of underground coal mines

### Introduction

Type	Details
Name of the statutory function	Mining engineering manager
Class of mine	Underground coal mines
Key statutory function?	Yes
Mining Supervisor?	Yes

Statutory functions are certain safety-critical roles in the mining and extractives industry that are regulated by the department. This document has been developed for people who exercise specific statutory functions to help them understand their duties, key relationships, tasks and work practices. Schedule 10 of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 (WHS (M&PS) Regs 2014) regulates statutory functions.

This document will:

- inform you of what exercising your function involves
- help mine operators and individuals to develop training and/or mentoring programs to support individuals to practice in the function
- assist mine operators to develop their safety management system, including management arrangements
- guide mine operators and you when identifying maintenance of competence learning to be undertaken.

Please note, a [list of key terms](#) and [legislative provisions](#) can be found at the end of this document.

### Guidance on statutory function

Extract from the WHS (M&PS) Regs 2014, Schedule 10, Part 2, clause 3:

- (1) The statutory function of mining engineering manager is to develop, supervise, monitor and review the mining engineering standards and procedures forming part of mining operations at the mine.
- (2) The requirement for nomination to exercise the statutory function is that the individual nominated must hold a current practising certificate that authorises the exercise of the statutory function.

## Exercising the function

An individual exercising the function should:

**Develop:** establish the mining engineering standards and procedures through appropriate consultation, investigation and analysis methods, with reference to any design principles, engineering and technical standards relevant to legislative requirements, WHS and risk management.

**Supervise:** provide supervision of mining engineering standards and procedures through the processes of the mine safety management system. This may include but not be limited to a combination of the following activities:

- Verify and give advice on implementation.
- General supervision and to a lesser extent direct supervision, as required.
- Participate in the management of risk, including risk assessment processes and particularly those involving principle hazards.
- Maintain an understanding of WHS hazards and risks in the mining operations that are required to be controlled or eliminated and applying this knowledge.

**Monitor:** periodically obtain data and information to verify whether the mining engineering standards and procedures are being applied and achieving their purpose (i.e. 'fit for purpose') by:

- analysing reports and information provided by other statutory function holders and consultative mechanisms under the safety management system
- observing mining operations and verifying compliance with legislation to support a safe and healthy workplace for all mine workers
- ensuring that mining engineering standards and procedures used in any plans, such as trigger action response plans (TARPs), are relevant and timely
- verifying mining engineering standards and procedures in principal hazard management plans and principal control plans.
- evaluating audit outcomes on the effectiveness of the safety management system against its mining performance standards and procedures.

**Review:** measuring the effectiveness of the mining engineering standards and procedures against the performance standards of the safety management system and external good (or best) practice so they remain current, effective and improved where possible. They may rely on other workers and the safety

management system processes for review activities to be completed, including one or more of the following:

- Review and evaluate audit results, health and safety performance outcomes, and remedial actions.
- Review risk assessments and controls to ensure they refer to the appropriate standards, where applicable, and control the risks from hazards.
- Consider relevant external information sources such as original equipment manufacturer, regulator and other safety and health type alerts.

## Scope and relationships

This statutory function applies to underground coal mines only.

An individual will follow the management structure set out in the mine safety management system.

They should be aware of possibly interacting with other individuals exercising statutory functions at the mine:

- **Deputy** – assist with supervising, monitoring and reviewing WHS and safety management system requirements.
- **Undermanager** – assist with implementation of the safety management system.
- **Electrical and mechanical engineering managers** – cooperate to ensure mining and electrical engineering standards and procedures for mining operations are compatible and effective.
- **Qualified electrical and mechanical tradesperson** – day to day operations.
- **Ventilation officer** – develop standards for ventilation and to then monitor and review their effectiveness.
- **Fire officer** – establish standards for firefighting equipment, inspection and maintenance.
- **Mining surveyor** - assist with preparing the mine survey plan for prescribed items.

## Statement of minimum tasks

The individual should carry out the following tasks for required elements of the mine's safety management system to develop, supervise, monitor and review mining engineering standards and procedures.

### Generally

For the applicable elements of the safety management system:

- Manage risks.
- Supervise contractors and their management plans.
- Mine inspection plan.

## Principal Hazards

Principal hazard management plans for all applicable prescribed principal hazards in WHS (M&PS) Regs 2014, clause 5 and any others

## Principal Control Plans

- Principal control plans as required for mining engineering standards and procedures.
- Refer to [Scope and relationships](#) for implementation with other statutory function holders.

## Specific control measures (application as prescribed in the WHS laws<sup>1</sup>)

- Specific control measures that apply to a mine.
- Specific control measures that apply to all coal mines.
- Specific control measures that apply to underground mines.
- Specific control measures that apply to underground coal mines.
- Emergency and survey plans.

## Information, training, instruction and consultation

- Support information, training and instruction for mining engineering standards and procedures.
- Participate in mine consultation processes internally and externally as directed.

## Monitoring, auditing and review

- Monitor the safety management system against the mining engineering standards and procedures including:
  - compliance with the mining engineering standards and procedures for reporting mine incidents to the regulator, including preserving incident sites.
- Conduct or assist in the audit and review of the safety management system, as required.

## Key statutory function and mining supervisor

The mining engineering manager is a key statutory function under clause 135 of the WHS (M&PS) Regs 2014. Only one person is nominated by the mine operator in the safety management system to exercise the key statutory function.

This statutory function is a mining supervisor under clause 3 of the WHS (M&PS) Regs 2014 to carry out specified tasks:

- Responsibilities for supervision of workers in a part of the mine, as set out in the safety management system.

---

<sup>1</sup> Means the *Work Health and Safety Act 2011*, *Work Health and Safety Regulation 2017*, *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*

- As a mining supervisor for an underground coal mine:
- Where provided, have and operate a portable gas detector in compliance with WHS laws.
  - Where informed by a worker or where they form a suspicion or belief of a place of risk where air quality and air safety standards are not being met, then taking the action prescribed under WHS laws.
  - Where directed by the mine operator, be present whenever extraction of coal or mineral is taking place, or where legislatively prescribed for other circumstances.
  - Inspection of all safely accessible parts of each inspection area at an underground coal mine, including:
    - for the areas, frequency and levels of atmospheric gases and contaminants set out in the inspection plan
    - after a withdrawal.
  - Where safety concerns arise from the inspections, respond as required.
  - Record and review inspections, as required in the inspection plan.

### Note

The safety management system forms part of the overall management system that is in place at the mine<sup>2</sup>. The mine management system may follow a management approach such as:

- plan, do, check, act
- identify, assess, control and review.

Regardless of what management approach is used at the mine, the individual should exercise the statutory function to meet the safety management system and WHS laws requirements.

## Work practices

There are no typical work practices across all mining engineering managers at underground coal mines. The individual should develop their work practices according to the requirements specified by the mine operator and the safety management system.

In general, the work practices of a mining engineering manager vary according to the mine and mine operator.

---

<sup>2</sup> Clause 13(4) Work Health and Safety (Mines and Petroleum Sites) Regulation 2014

## Authority

The WHS (M&PS) Regs 2014 enables the function and an individual to practice it by:

- Clause 136: only an individual who meets the requirements can exercise the function and only if they are nominated by the mine operator.
- Clause 137: the mine operator must ensure the nominated individual continues to meet the requirements and is able to exercise the function.
- Clause 138: an individual must inform the mine operator if they cannot exercise the function.

## Key terms<sup>3</sup>

Term	Definition
Apply	To put into practical operation or to put to use, e.g. an inspection program.
Develop	To bring into being or activity, generate or evolve. The term includes further adding to and amending standards and procedures that form part of the safety management system.
Fit for purpose	Something that is sufficient to do the job it was designed to do. This definition is taken from the <a href="#">NSW code of practice: mechanical engineering control plan</a> .
Implement	To put into effect, either directly or by causing others to carry out actions.
Lifecycle	For mining operations, this means the activities for exploration, construction, commissioning, extraction and those in connection with it, and the decommissioning of a mine.
Mining operations	For a definition of this term, refer to section 7 of the <i>Work Health and Safety (Mines and Petroleum Sites) Act 2013</i> . Mining operations includes lifecycle activities.
Monitor	To check, observe, supervise and/or record the operation of a mine, part of a mine, workers or related activities so as to assess the suitability of mining engineering standards and procedures to manage potential or actual risks.
Review	A retrospective assessment of something with the intention of instituting change if necessary.

<sup>3</sup> Some meanings are derived from the Macquarie Dictionary and added to for context

Term	Definition
Safety management system	All activities planned and documented by the mine operator to be carried out to manage health and safety risks at the mine in an organised manner.
Standards and procedures	<p>Written internal or external documents that set out or provide guidance on how mining operations should be carried out to achieve a performance level for WHS. This may include mining, electrical, mechanical or other areas.</p> <p>The standards may include:</p> <ul style="list-style-type: none"> <li>→ WHS legislation and codes of practice</li> <li>→ international and Australian standards</li> <li>→ guidance information from various sources that are credible, current and substantive</li> <li>→ industry publications such as WHS reports.</li> </ul>
Supervise	Oversee or direct some part of mining operations. The mining engineering manager should normally provide general supervision, but at times may exercise direct supervision, such as to verify critical controls are working or high-risk activities are being managed. This could include, for example, commissioning a large new piece of plant.
Direct supervision	Verifying through direct observation that mining operations and any contractors involved are applying the requirement of the safety management system
General supervision	Where the individual may not always be present or directly responsible for supervising the activities, but will monitor to ensure that the safety management system is implemented, applied and monitored, and provide advice to supervisors and workers.
Underground mine <sup>4</sup>	An underground mine that is a coal mine.
Underground mine <sup>5</sup>	Means that part of a mine that is beneath the surface of the earth and includes plant and structures that extend continuously from the surface into that part of the mine but does not include a part of the mine in which high wall mining is being carried out.
Verify	Confirm or substantiate by examination or comparison. In this description, it means directly or indirectly checking that requirements of

<sup>4</sup> Clause 3 Work Health and Safety (Mines and Petroleum Sites) Regulation 2014.

<sup>5</sup> Clause 3 Work Health and Safety (Mines and Petroleum Sites) Regulation 2014.

Term

Definition

the safety management system are being satisfied, e.g. direct supervision, reading reports.

© State of New South Wales through the NSW Department of Planning and Environment 2018.

This publication is copyright. You may download, display, print and reproduce this material in an unaltered form only (retaining this notice) for your personal use or for non-commercial use within your organisation. To copy, adapt, publish, distribute or commercialise any of this publication you will need to seek permission from the NSW Department of Planning and Environment.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (June 2021). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Planning and Environment or the user's independent advisor.

CM9 reference: PUB17/653