



**NSW  
Resources  
Regulator**

**COMPETENCY FRAMEWORK**

# **UNDERMANAGER**

**of underground coal mines**

Work Health and Safety (Mines and Petroleum Sites Regulation) 2014



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# 1. Introduction

This document should be read in conjunction with the framework for competencies of statutory functions requiring practising certificates.

# 2. Legislation

Extract from the WHS (M&PS) Regs 2014, Schedule 10, Part 2, clause 6:

- (1) *The statutory function of Undermanager is to supervise the mining operations at the mine for a shift during which:*
- (a) *there are more than 15 persons underground, or*
  - (b) *secondary extraction is occurring at the mine, or*
  - (c) *major changes are being made to the ventilation system for the mine.*

# 3. Competencies for undermanager of underground coal mines

The competencies of statutory functions in the framework are generally described below and specific details for this function are found in the following sections.



## Situational Awareness and Risk Assessment

This competency covers the practitioners' actions to identify and assess risks, hazards or other issues that may affect the safe functioning of the mine. It involves gathering information, analysing emerging issues and seeking objective evidence to draw conclusions, so as to eliminate or minimise undesirable consequences.

The undermanager of underground coal mines is to apply specialised knowledge and skills in the assessment of hazards and potential risks, to support a safe workplace. These include technical and theoretical knowledge in a specific area or a broad field of work, to assist them in the demonstration of autonomy, judgement and defined responsibility in known or changing contexts and within broad but established parameters when:

- implementing plans and processes to support the identification and control of hazards and potential risks
- sourcing information relevant to supervising the management of risks
- monitoring by obtaining data and information, undertaking audit and/or verifying compliance with standards and legislation

- reviewing risk assessments and controls to ensure they refer to the appropriate standards, where applicable, and control the risks from hazards
- supervising workers and inspect work areas as applicable at the mine.

Behavioural tendencies and skills to support the demonstration of Situational Awareness and Risk Assessment:

- Source any information relevant to managing the mining operations for the shift.
- Gather information to establish status of risks to hazards within the mining operation.
- Inspect areas or cause them to be conducted as per standards and processes for a designated part of the mine.
- Use own judgement and experience from previous situations to anticipate and identify potential issues and hazardous situations.
- Review risk assessments and controls to ensure they refer to the appropriate standards, where applicable, and control the risks from hazards.
- Investigate and report incidents, including preserving the scene for certain reportable incidents.

A blue circular icon with a white border containing the text "Effective communication".

Effective  
communication

This competency refers to the practitioners' responsibility in using appropriate, clear and effective communication to ensure instructions, hazards, risks, safety plans and other technical and non-technical issues are effectively communicated at all levels, taking into account the knowledge, expectations, requirements, interests and terminology of the intended audience. Methods of communication and ensuring the communication has been delivered and understood forms part of this competency.

The undermanager of underground coal mines is expected to transfer technical information and communicate advice on application to a variety of audiences within the underground coal mine. This includes:

- ensuring others have access to relevant documentation and information to apply standards, processes and systems
- explaining to others technical and non-technical concepts and instructions, the result of their analysis of data, information, audit outcomes when verifying compliance with standards and legislation
- participating in consultation where appropriate
- reporting to the manager of any deficiencies or significant deviations from the SMS.

Behavioural tendencies and skills to support the demonstration of Effective Communication:

- Consult with others to gather relevant information to implement standards and supervise others.

- Implement appropriate channels to ensure relevant information is communicated in a timely manner.
- Instruct, advise and consult with others as appropriate to support the implementation of standards, processes or systems.
- Present information in a credible manner.
- Maintain written and verbal reporting requirements.
- Notify the regulator of a high-risk activity prescribed by the WHS (M&PS) Regs 2014 for electrical work on energised electrical equipment.
- Notify the regulator where an incident occurs prescribed as a notifiable incident by the WHS (M&PS) Regs 2014.

#### Collaboration

This competency covers the practitioners' competency to collaborate, provide support and leadership, facilitate the gathering and dissemination of information and knowledge for mine compliance. It includes behaviours and mechanisms that support the supervision, training and support of workers.

The undermanager of underground coal mines is expected to support the collaboration and supervision of others for a safe healthy and compliant mining operations. This includes:

- supervising others at the mine, including coordinating others to support the safe application and monitoring of their tasks and responsibilities. This includes assign and delegate tasks and clarify expectations, in accordance with SMS and any specific relevant part of contractor WHS management plans
- identifying key internal and external stakeholders, and engaging them as appropriate to support standards and procedures are implemented appropriately
- providing advice, instructions and assistance to others on how to apply the standards and procedures
- verifying that others in the mine have the necessary training and competency required to apply standards and procedures
- sharing information with other outgoing and incoming shift under managers, and any other worker, using appropriate channels.

Behavioural tendencies to support the demonstration of Collaboration:

- Support and consult with relevant stakeholders to assist the implementation of standards and processes.
- Supervise workers in a part of the mine, as set out in the SMS, including managing and coordinating workers and the work activities, contractors and their management plans.
- Train, instruct and inform on WHS matters and technical issues.

- Ensure all underground workers, other than mining supervisors, are under the supervision of a deputy allocated to that part of the underground coal mine.
- Ensure a mining supervisor is assigned to, and present, in any part of the mine where coal extraction is occurring, and a competent person remains on the surface, and is readily available to be contactable, whilst ever persons remain underground.
- Prevent or resolve conflict in a high-risk situation to minimise negative impacts, as appropriate
- Supporting others to understand and apply the standards and procedures.

Operational  
decision making  
and initiative

This competency covers the practitioners' operational decision-making ability to initiate, plan, lead or manage the resolution of hazards and risks that have been identified to support safe mining operations. It includes the ability to respond to issues in a decisive manner, applying their knowledge and using their experience from previous situations.

The undermanager of underground coal mines is expected to apply a specialised knowledge and skills to make decisions and respond to hazards and potential risks. These include technical and theoretical knowledge in a specific area or a broad field of work, to assist them in the demonstration of autonomy and judgement in their actions and decision-making process in known or changing contexts and within broad but established parameters. These include:

- referring to evidence and objective information when making decisions and supporting the implementation of appropriate standards and procedures
- assisting and reviewing procedures for contractors and their management plans
- implementation of risk management plans and processes
- implementing and supporting the application of controls plans.

Behavioural tendencies and skills to support the demonstration of Operational Decision Making and Initiative:

- Use evidence and judgement to support decision-making process and problem-solving.
- Make informed and timely decisions how to implement standards, systems and plans with confidence.
- Act on non-compliance or when safety concerns arise within the mine.
- Investigate and report on incidents.
- Report or receive reports on outcomes of inspections and take appropriate action to manage hazards or risks identified, in accordance with the SMS.
- Preservation of a scene for an incident.

### Organised and disciplined

This competency covers the practitioners' abilities in planning and organising their work and the work of others, to support processes being followed, tasks prioritised, and inspections and checks are completed in a systematic manner as per legislation. It includes supporting systems, plans and procedures that are implemented, maintained and updated as required.

The undermanager of underground coal mines is expected to apply a specialised knowledge and skills to manage WHS and safety risks at the mine in an organised and systematic manner. This include:

- organising sufficient and appropriate WHS resources for workers
- supporting the organisation of activities when developing and amending standards and procedures that form part of the SMS
- monitoring and reviewing standards and processes in a systematic and organised manner
- ensuring systems and plans are maintained, updated, and implemented appropriately.

Behavioural tendencies to support the demonstration of Organised and Disciplined:

- Organise sufficient and appropriate WHS resources for workers.
- Act in a consistent manner and in a range of contexts within underground coal mine, especially when coordinating and supervising others.
- Conduct timely inspections.
- Monitor tasks and actions, anticipate limitations or challenges and adjust plans accordingly.
- Monitor the compliance of the SMS with reporting mine incidents, matters and reportable incidents to the regulator, including high risks activity prescribed by the WHS (M&PS) Regs 2014; where an incident occurs prescribed as a notifiable incident by the WHS (M&PS) Regs 2014.
- Work in a systematic manner (e.g. when supervising, inspecting areas of the mine, and implementing plans).
- Implement task/work plans and verification of control plans.
- Implement plans for secondary extraction and verify they are controlling risks from hazards.

### Driven by safety and integrity

This competency refers to the practitioners' capability to act so as to comply with legislation, as well as supporting others to adhere to legislation. It includes their ability to persist with challenging tasks through sustained commitment and effort whilst maintaining standards, and their ability to model high standards of behaviours for others through own behaviour.

The undermanager of underground coal mines is expected to apply specialised knowledge and skills to act consistently in accordance to legislation, standards and procedures, and support others to adhere to those principles consistent with existing legislation. This includes:

- acting and supporting others across the mine behave in a consistent manner that is accordance with legislation
- monitoring and verifying areas where legislation and safety standards are compromised
- following instructions and guiding others on how to comply to existing legislation, standards and procedures
- ensuring the SMS requirements are communicated to appropriate contractors to work at the mine.

Behavioural tendencies to support the demonstration of Driven by Safety and Integrity:

- Exercise their function and support others in their understanding of their expectations and duties for compliance and achieving WHS e.g. not supporting work shortcuts that compromise.
- Implement standards and the SMS to support safety operations in the mine, including the emergency plan to manage workers to safely withdraw or escape.
- Implement change after investigations and markets to all about the change, including peers and legislators, about findings and improvements.
- Monitor the performance and compliance of the SMS against the specified standards as part of supervising.
- Monitor hazards and risks, including air contaminants and gas levels, using instruments as required.
- Use their specialised technical knowledge to identify signs of non-compliance within the mine.
- Admit mistakes and is open and transparent with others in a timely manner.
- Investigate and report on incidents with other mining supervisors, including preserving the scene for certain reportable incidents.

Responsiveness  
to change

This competency refers to the practitioners' capability to use and apply their relevant knowledge of legislation and standards, previous experience and skills to respond to changing circumstances in the mine they operate in.

The undermanager of underground coal mines is expected to apply specialised knowledge, skills and specific experience to implement contingencies plans and accommodate to change. This includes:

- implementing and supporting the application of changes in plans and processes to emerging circumstances, without compromising compliance
- providing technical advice and support to others to remain effective during stressful situations.

Behavioural tendencies to support the demonstration of Responsiveness to Change:

- Suggest changes to ensure outcomes are met (which would otherwise be compromised).

- Implement change management processes and support the application of new plans and processes where required.
- Addresses changing conditions, informs and provides technical advice.
- Seek advice or instruction when implementing new processes and standards.
- Continue to operate effectively in stressful situations, remaining focused when mine plans change.
- Implement contingency plans where required.
- Ensure major changes to the ventilation system are managed and planned, in conjunction with the ventilation officer.
- Think flexibly when required in the face of new events.
- Maintain focus and clear purpose in a dynamic environment with multiple demands.

Technical  
knowledge  
and skills

This refers to the practitioners' capability to demonstrate technical skills and specific knowledge to be able to act or apply the requirements of legislation, standards, systems, procedures and processes.

The undermanager of underground coal mines is expected to understand in depth and apply advanced technical concepts and methods to guide own work and the work of others when implementing standards, processes and systems in a mine. They are required to demonstrate technical and theoretical knowledge in a specific area or a broad field of work, to assist them in the demonstration of autonomy, judgement and defined responsibility in known or changing contexts and within broad but established parameters. This includes:

- mining and WHS systems
- legislation
- emergency management
- general WHS topics
- general knowledge to support the demonstration of technical skills incorporating associated non-technical skills

## Technical knowledge and skills required

### Mining and WHS systems

#### Safety management system (SMS)

- Understand activities and role requirements of those statutory and other WHS functions being exercised at the mine, including their obligations in implementing the SMS and standards.

- Implement established standards and the SMS within their assigned area of mining operations.
- Ability to identify gaps relevant for the implementation of standards and processes.
- High-risk activities prescribed by the WHS (M&PS) Regs 2014 to be notified to the relevant personnel in accordance with the SMS.
- Complete inspection and maintenance requirements.
- Preserve the scene of certain notifiable incidents for assessment where required.
- Monitor work practices (including contractors), regarding their compliance to the SMS.
- Monitor and measure the performance of specific aspects of the SMS within their area.
- Ability to anticipate when achieving the SMS requirements may be compromised and proactively mitigates this.
- Operational planning within the scope of their function.
- Critical systems and devices for controls.
- Reporting and action tracking/completion.
- System for managing audits (i.e. qualifying auditors, scheduling, documenting results and tracking recommendations).
- Conducting and documenting risk assessments.

**Principal hazards (catastrophic fatal hazards) as listed in schedule 1 - Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 under the *Work Health and Safety (Mines and Petroleum Sites) Act 2013***

- Underground coal mine hazard profile.
- Implementation and monitoring of the principal hazard management plans for all applicable prescribed principal hazards in WHS (M&P) Regs 2014, clause 5 and any other, during a shift.
- Requirements included in Schedule 1 'Principal mining hazard management plans— additional matters' in the WHS (Mines and Petroleum Sites).
- Keep accurate and detailed records and inspection reports, as required by the SMS.
- Monitor and mitigate risks to health and safety associated with the principal mining hazards.

- Nature of the harm that could be caused by hazards, how serious the harm could be and the likelihood of it happening for implementation.

**Principal control plans as listed in schedule 2 - Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 under the *Work Health and Safety (Mines and Petroleum Sites) Act 2013***

- Ability to apply knowledge in a wide range of contexts of relevant control plans within the scope of their area of responsibility (e.g. mechanical engineering control plan, electrical engineering, worker health management, explosives control plans, emergency control plans and ventilation control plans).
- Act as per relevant control plan across the mine for the shift.

**Specific control measures in Work Health and Safety (Mines) Regulation 2014 under the *Work Health and Safety (Mines) Act 2013***

- Check that each critical control measure in relation to high potential and dangerous incidents is adequately supported for ongoing implementation as per SMS.
- Implement and supervise the application of specific control measures as instructed.
- Identify appropriate controls, using the hierarchy of control, to manage risks and anticipate limitations or challenges of implementing control measures within their assigned area of mine operations.
- Evaluation and review of risk controls, using the hierarchy of controls.
- Contingency planning.
- Current and emerging health and safety issues in mining operations.
- System for monitoring the performance of control measures.
- Performance indicators to identify effectiveness and failure of control measures.
- Corrective actions in the event of failure of controls and in the event of the indicators not meeting performance targets.
- Follow-up action items to close any gaps.
- Environmental conditions may impact the implementation of standards and processes.

	<ul style="list-style-type: none"> <li>• Ventilation monitoring devices and control plan for levels of air quality, processes and controls.</li> <li>• Contingency planning.</li> <li>• Environmental requirements and procedures, including vibration, noise, dust and chemicals.</li> </ul>
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**Legislation**

Apply a specialised knowledge and skills, including technical and theoretical knowledge, in a wide range of contexts of acts, regulations, approved codes of practice, instruments, standards, and guidelines relevant to the execution of their function, sourcing and consulting with others, such as:

- *Work Health and Safety Act 2011* and *Work Health and Safety Regulations 2017*.
- *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and *Work Health and Safety (Mines and Petroleum Sites) Regulations 2014*.
- *Explosives Act 2003* and *Explosives Regulation 2013*.
- approved codes of practice under the *Work Health and Safety Act 2011*.
- international and Australian/New Zealand Standards.

**Emergency management**

- Site emergency plans.
- Implement the emergency plan to supervise crews and workers to safety withdraw or escape.
- Supervise the application and monitoring of emergency plans.
- Emergency preparedness and response systems, evacuation, notification and response.
- Health and safety issues in mining operations and the provision of medical treatment and assistance.
- Procedures and conditions under which persons at the mine are to be withdrawn to a place of safety.
- Pre-incident plans for prevention and management.
- Incident investigation processes, and system management, including reporting and investigation procedures, and tracking remedial actions.

**General WHS topics**

- Demonstrate an ability to apply knowledge of relevant topics included in the guide for maintenance of competence scheme for statutory functions requiring practicing certificate, including

general WHS risks, WHS requirements to coordinate and organise resources.

**General knowledge to support the demonstration of technical skills incorporating associated non-technical skills**

- Supervision and management processes.
- Conflict resolution processes in a high-risk situation.
- Strategies for sourcing information relevant to their area and responsibility.
- Range of communication techniques to convey information to others, including requirements for written and verbal reporting.
- Document control and procedures for documenting relevant communications.
- Relevant regulatory-based communication requirements and systems e.g. end of shift reports.
- Tools/equipment, systems and processes to ensure others are well informed of issues or relevant decisions.
- Meeting procedures and follow-up requirements.
- Resources available, plans and processes within the underground coal mine.
- WHS requirements for supervision and implementation of standards and processes.
- Standard operating processes, controls plan and other relevant systems and processes.
- Computerised maintenance scheme.