



**NSW
Resources
Regulator**

COMPETENCY FRAMEWORK

UNDERGROUND MINE SUPERVISOR

of underground mines other than 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 4, clause 26:

'The statutory function of underground mine supervisor is to supervise mining operations at the mine for a shift during which production is taking place.'

3. Competencies for underground mine supervisor of underground mines other than 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 underground mine supervisor of underground mines other than coal mines is to apply a broad range of technical and practical knowledge and skills for specialised and/or skilled work in the assessment of hazards and potential risks, in varied contexts, within the specific area of the mine they operate, to support a safe workplace. This includes applying knowledge and skills to demonstrate autonomy, judgement and limited responsibility within established parameters in areas such as:

- applying plans and processes to support the identification and control of hazards and potential risks
- inspecting work areas in a part of the mine
- sourcing information relevant to supervising their assigned area of mining operations
- assessing the work place to identify hazards and potential risks during their shift
- reviewing reports, information provided by others, and other available evidence to put in action risks assessment activities within their assigned area of supervising mining operations.

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

- Gather information from workers and management, as well as review written reports, processes, standards regarding WHS matters, changing conditions and requirements, as required.
- Identify hazards or potential risks within their assigned area of mining operations.
- Inspect areas or cause them to be conducted as per standards and processes.
- Apply learnings from previous situations to assist the identification of hazards and potential risks.
- Assess the area of the mine they are responsible by conducting physical inspections and general supervision.



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 underground mine supervisor of underground mines other than coal mines is expected to apply a broad range of factual and technical knowledge and skills when communicating information, in varied contexts, within the specific area of the mine they are responsible for. This includes:

- using clear and appropriate communication to support others, understand issues, risks, or relevant decisions, within their assigned area of mining operations
- consulting with and providing relevant information and instruction to workers to enable them to safely carry out their assigned work
- checking others understand and follow the instructions provided
- sharing information with other outgoing and incoming underground mine supervisors, shift supervisors, managers and any others, using appropriate channels.

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

- Use available channels to ensure relevant information is communicated.
- Use clear and appropriate verbal and non-verbal communication, providing clear and comprehensive instructions and listen actively to others.
- Provide clear and comprehensive instructions to workers within their area of mining operations and verify if instructions are understood by workers.
- Attend or conduct start of shift communication meeting with workers.

- Share relevant information, verbally and written (i.e. document information for shift changeovers as per clause 27 of the WHS (M&PS) Regs 2014), and clarify information with the incoming and outgoing deputy(s), undermanager or workers within their specific area of the mine they are responsible for.
- Provide feedback as an opportunity for improvement of processes, systems, plans or personal approach.
- Record and review inspections, as required in the inspection plan.
- Reads and signs off on outgoing deputy report for the previous shift and communicates content to workers as required.



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 underground mine supervisor of underground mines other than coal mines is expected to support the interaction and supervision of workers, supporting a safe, healthy and compliant operation within the specific area of the mine they are responsible for and within the shift. This includes:

- engaging with relevant teams, and supporting others to engage and collaborate
- contributing to the team dynamic within the work area, and preventing or resolving conflicts in a high-risk situation to minimise negative impacts
- supervising workers and providing clear direction when assigning activities, including standards and procedures as applicable
- identifying knowledge or skills needs, and supporting training and development where appropriate.

Behavioural tendencies and skills to support the demonstration of Collaboration:

- Engage effectively with a multidisciplinary team to facilitate information and support as required, and to ensure mining operations are coordinated, safe and healthy.
- Supervise the delivery of training and instructions and inform on WHS matters to workers and other supervisors.
- Supervise workers to participate in the mine training program, testing of the emergency plan as required in the mine training program that may include the legislation required training in self-rescuers.
- Support the application of standards and processes, providing the necessary instruction and supervision.
- Supervise others, including contractors to ensure they are compliant and that work instructions and procedures are followed as required. This includes assign and delegate tasks

and clarify expectations and review of tasks, referring to the SMS and any specific relevant part of a contractor management plan.

- Establish the whereabouts of workers and ensuring risks are managed.
- Prevent or resolve conflict in a high-risk situation to minimise negative impacts, as appropriate.
- Identify technical gaps relevant for completing activities in a safe manner (e.g. identify strengths and areas for improvement within the team) and allocate tasks accordingly.
- Participate or assist in mine consultation processes, audits and reviews of the SMS, as required.
- Assist others to ensure the accuracy and content of mine survey plans.

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 underground mine supervisor of underground mines other than coal mines is expected to apply a broad range of factual and technical knowledge and skills in a range of contexts within the underground mine, to make and follow operational decisions. This includes:

- reporting and taking appropriate action to manage hazards or risks identified
- considering available evidence and objective information when applying appropriate standards and procedures
- supporting the management of risk, including risk assessment processes within their area.

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

- Use available evidence and judgement to make decisions on how to manage hazards, potential risks within their area and shift, as well as inspections that may be required.
- Use judgement to determine the frequency of inspections that may be supplementary to the inspection plan (if applicable).
- Undertake operational decision-making on how to apply standards, systems and plans with confidence.
- Participate in operational decisions and assist manager and other supervisors within their assigned area of mining operations in a timely manner.
- Take action prescribed under WHS laws when safety concerns or hazards and risks are identified.

- Proactively act on non-compliance within their assigned area of mining operations in a timely manner.
- Seek a decision from the appropriate person and obtain sign off to apply an action plan to resolve issues where it lies in another person's area of authority.
- Report outcomes of inspections and take timely action as required.
- Investigate and report on incidents.
- Escalate issues to manager where appropriate and through the appropriate channels when a resolution is important and requires other input.

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 underground mine supervisor of underground mines other than coal mines is expected to apply a broad range of factual and technical knowledge and skills in a range of contexts within the specific area of the mine, to minimise or control WHS and safety risks at the mine in an organised and systematic manner. This includes:

- organising sufficient and appropriate WHS resources for workers.
- supervising workers activities and priorities within their assigned area to ensure compliance with the SMS.
- conducting inspections and checks during their shift to ensure the SMS is effectively implemented and any.
- recording, reporting and actioning all non-compliances found.
- ensuring that statutory shift reports are formally signed and acknowledged.

Behavioural tendencies to support the demonstration of Organised and Disciplined:

- Act in a consistent manner and in a range of contexts within underground mine, especially when scheduling tasks and organising WHS resources for workers.
- Identify tasks and priorities within their shift, as per plans and standards.
- Conduct timely inspections of all safely accessible parts of each inspection area at an underground mine e.g. shift inspections, pre-shift inspections.
- Identify tasks and priorities within their shift, as per plans and standards.
- Record and review inspections, as required in the inspection plan.
- Complete and support the delivery and completion of activities within their area and shift, as per legislation, standards and procedures.

- Monitor the performance and compliance of the SMS against the specified standards as part of the supervision.
- Report 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.
- Make entries in the shift report, such as a safety critical changes or incidents, to notify the relevant person as stated in the SMS.

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 underground mine supervisor of underground mines other than coal mines is expected to apply a broad range of factual and technical knowledge and skills to act consistently in accordance to legislation, standards and procedures, and support workers within their shift to adhere to those principles consistent with existing legislation. This includes:

- acting in a consistent manner, complying with legislation and standards, even in situations of considerable internal or external pressure
- identifying and informing of an area or activity is not compliant with safety standards within their shift
- instructing workers on how to complete their activities in accordance to safety standards
- ensuring standards, procedures and safety management system are applied within their shift for the area of the mine
- following instructions and guidance when applying standards.

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

- Carry out activities in a reliable and consistent manner, in compliance to function, as per legislation and standards.
- Apply the SMS so workers remain familiar with the emergency exits and facilities.
- Identify and inform where non-compliance is in the area they operate in, and challenge situations where required to support safe operation.
- Follow instructions from manager, and ensure workers follow tasks as instructed.
- Admit own mistakes, remediate and/or inform appropriate person.
- Notify the appropriate mine personnel when an incident occurs, in particular a notifiable incident by the WHS (M&PS) Regs 2014.
- Supervise the preservation of incident sites, where required by SMS or WHS legislation.

- Monitor hazards and risks and ensure that required controls are applied.
- Monitor work practices, including contractors, with reference to any work procedures, plans and SMS requirements.
- Monitor plans being used and workers entering the work area(s), especially mobile plant movements.

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 underground mine supervisor of underground mines other than coal mines is expected to apply a broad range of factual and technical knowledge, skills and specific experience to apply contingencies plans and accommodate change. This includes:

- reassigning activities to changing or emerging circumstances, without compromising compliance
- assisting others to remain focused during stressful situations
- supporting others to apply changes as required.

Behavioural tendencies to support the demonstration of Responsiveness to Change:

- Accept and cope with change and ambiguity.
- Remain solution-focused when facing emergencies or changes in requirements.
- Apply changes to ensure standards are met, without compromising safety.
- Seek advice or instruction when applying new processes and standards.
- Manage own emotions and others' emotions during critical situations.
- Receptive to feedback or criticism.
- Reassess changes to ensure further risks are not encountered.
- Think flexibly when required in the face of new events.

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 underground mine supervisor of underground mines other than coal mines is expected to demonstrate a broad factual, technical and some theoretical knowledge of specific technical information, processes and systems they are required to apply within their assigned area of mining operations of underground mines. They are required to demonstrate an ability to apply knowledge in

a wide range of contexts, and they can source additional information if required to carry out their function 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

- Sound knowledge of the mine’s emergency management and response systems.
- Sound mining knowledge and skills including but not limited to the following areas:
 - ventilation
 - ground control and support systems
 - explosives including licensing and security requirements
 - road and traffic management systems
 - water management systems including pumps/sumps
 - underground mining equipment e.g. drill rigs, loaders, trucks
 - mining methods - such as block caving, sublevel caving, long hole open stopping, narrow vein mining, cut and fill, hand-held mining practices, raiseboring, rising, winzing and shaft sinking,
 - mine filling activities such as hydraulic filling, paste filling, aggregate fill including cemented aggregate
 - management of mining voids.
- Able to use, facilitate and mentor team members in the effective use of risk management systems such as conducting and implementing JSA and risk assessments. Apply the hierarchy of control in the risk management process.

Safety management system (SMS)

- Understand their obligations in applying the relevant components of the SMS and standards.

- Apply established standards and the SMS within their assigned area of mining operations.
- Identify gaps relevant for the SMS within the specific area of the mine they operate.
- Identify non-compliance in processes and high risks activities within their assigned area of mining operations as prescribed by the WHS (M&PS) Regs 2014.
- Complete inspection and maintenance requirements.
- Sound knowledge and understanding of the different requirements regarding reportable accidents and incidents required under the WHS(M&PS) Regs 2014 e.g. Dangerous incidents (Clause 179) preserve scene and immediate notification and high potential incidents (clause 128) reportable within seven days.
- Understand the need to preserve the scene for certain reportable accidents & incidents for investigation assessment and reporting requirements 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.
- Anticipate when the SMS may not be complied with and proactively mitigates this.
- Operational planning within the scope of their function.
- Critical systems and devices.
- Reporting and action tracking/completion.
- Supporting audits (i.e. qualifying auditors, scheduling, documenting results and tracking recommendations).
- Conducting and documenting risk assessments.
- Reviewing results of risk assessment.

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*

- Application 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 for a specified area of the mine

- Requirements included in ‘Principal mining hazard management plans— additional matters’.
- 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 hazard hazards.
- Nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening.

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*

- Apply knowledge in a wide range of contexts of relevant control plans within the scope of their area of responsibility (e.g. electrical engineering, worker health management, explosives control plans, and emergency control plans).
- Act as per relevant control plan as instructed.

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

- Check that control measures are being applied and adequately supported by relevant systems within the SMS within the specific area of the underground mine.
- Apply and supervise the application of specific control measures as instructed.
- Identify appropriate controls using the hierarchy of controls to manage risks and anticipate limitations or challenges of applying 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.

Legislation

Apply 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

- Apply the emergency plan to supervise workers to safety access refuge chambers and or fresh air bases or withdraw or escape using the primary access or secondary egress.
- 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 or a part of the mine are to be withdrawn to a place of safety.
- Continue to operate effectively in stressful situations.
- Ability to maintain focus and clear purpose in a dynamic environment with multiple demands.
- Think flexibly when required in the face of new events.
- Participating in emergency exercises.
- Investigate incidents that involved emergencies using reporting and investigation procedures, and tracking remedial actions.

General WHS topics

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

General knowledge to support the demonstration of technical skills incorporating

- Strategies to source information relevant to supervising their assigned area of the mining operations (i.e. including accessing written reports, communication meetings, consultation with other supervisors, workers or managers, inspection of work areas).
- Strategies to undertake risks assessments.

associated non-technical skills

- Equipment requirements for different types of emergencies relevant to the work and the designated area they operate in.
- Incident investigation processes.
- Communication techniques, equipment or systems to support a clear and appropriate communication of instructions and information.
- Reporting requirement, including relevant terminology and concepts
- Available and relevant information or communication channels (e.g. record processes and systems, documentation related to the SMS, standards, inspections and shift reports).
- Relevant briefing and debriefing processes.
- Conflict resolution processes in a high-risk situation.
- Resources available, relevant plans and processes .
- WHS requirements for scheduling, supervision, and application of plans and standards.
- Operation of instruments to monitor air contaminants and gas levels, such as portable gas detector.
- Contingency planning.
- Workplace environment requirements and procedures, including vibration, noise, dust and chemicals.
- Ability to remain focused on critical tasks over a period of time without being distracted.