



**NSW
Resources
Regulator**

COMPETENCY FRAMEWORK

DUST EXPLOSION CONTROL MEASURES AUDITOR

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 Work Health Safety (Mines and Petroleum Sites) Regulations 2014, Schedule 10, clause 9:

(1) The statutory function of dust explosion control measures auditor is to audit the dust explosion control measures and standards used at the mine and report the results of those audits to the mine operator.

3. Competencies for dust explosion control measures auditor 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 dust explosion control measures auditor of underground coal mines is to apply a highly specialised theoretical and technical knowledge and skills in the assessment and auditing of the dust explosion control measures and standards, to support the management of hazards and potential risks, and demonstrate autonomy, judgement and defined responsibility. This includes:

- auditing the performance of specific coal dust explosion control measures for all underground coal mines
- monitoring and reviewing data, processes and audit outcomes and reports to ensure the effectiveness of the dust explosion control measures and standards.

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

- Undertake investigation and analysis processes as part of auditing the dust explosion control measures and standards used at the mine.
- Identify how to access various sources of information and evaluate its merit.
- Analyse and interpret reports and information available under the SMS to identify how and why a hazard can be present in the mine, the likelihood and potential consequences of the risk eventuating.
- Verify processes used at the mine to ensure the effectiveness of dust explosion control measures and standards.
- Evaluate audit outcomes on the effectiveness of the dust explosion control measures and standards.
- Evaluate the performance of the mine inspection plan, as relevant to dust control measures.

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 dust explosion control measures auditor of underground coal mines is expected to transfer complex information and communicate audit outcomes. This includes:

- supporting the communication and reporting the effectiveness of the dust explosion control measures and standards for the mine
- explaining the results of their analysis of data, information, audit outcomes when verifying compliance with standards
- providing written reports to the mine operator on the conduct and outcomes of the audit.

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

- Use appropriate verbal and non-verbal communication to explain highly technical information in an articulate and clear manner and listen actively to others (i.e. when communicating information to technical and non-technical professionals within the mine).
- Use appropriate communication channels to report outcomes of the audit.
- Present as a credible source of information.
- Manage barriers to communication, supporting others to understand the outcomes of the audit, where required.
- Report information and outcomes of an audit effectively, using reporting tools and systems as appropriate, and maintaining written and verbal reporting requirements.
- Seek to clarify information or reports by asking question and actively listening to others' input.

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 dust explosion control measures auditor of underground coal mines is expected to support the collaboration and supervision of contractors and their management plans, to ensure the dust explosion control measures in accordance with the mine safety management system and applicable standards. This includes:

- identifying key internal stakeholders to support the collection of relevant information and the auditing process.

Behavioural tendencies and skills to support the demonstration of Collaboration:

- Understand the scope of other functions and their statutory requirements and manage their interdependencies.
- Cooperate with others to ensure the auditing process for the dust explosion control measures and standards is undertaken.
- Advise others on opportunities for improvement when non-conformances to the legislation are identified, and provide and areas of good practice in relation to the dust explosion control measures and standards.

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 dust explosion control measures auditor of underground coal mines is to apply highly specialised knowledge of advanced dust explosion control measures and auditing processes to support decision-making. This includes:

- carrying out an audit in accordance with the mine SMS and applicable standards
- referring to evidence and objective information when auditing the performance of specific coal dust explosion control measures for all underground coal mines
- managing risks, such as for major changes to the ventilation system and plans
- reporting on the effectiveness of the specific coal dust explosion control measures for underground coal mines.

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

- Demonstrate autonomy, judgement and responsibility when undertaking auditing processes and reporting the outcomes of the audits.
- Take the initiative to identify and bring to others' attention non-compliance, opportunities for improvement and/or areas of good practice in relation to the effectiveness of the dust explosion control measures and standards of the mine in the dust explosion control measures and standards.
- Use an objective evidence-based approach to decision-making.
- Integrate and combine different set of information, from different sources, to form general conclusions.

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 dust explosion control measures auditor of underground coal mines is to apply highly specialised knowledge of advanced concepts, systems and processes related to the dust explosion control measures and standards, to undertake auditing processes in an organised and systematic manner.

This includes:

- planning and organising audits, as prescribed by relevant regulation and the SMS
- gathering evidence of implementation and effectiveness of the dust explosion control measures and standards in a systematic and timely manner
- monitoring and reviewing processes used at the mine to ensure the effectiveness of dust explosion control measures and standards.

Behavioural tendencies to support the demonstration of Organised and Disciplined:

- Work in a systematic manner when monitoring and reviewing the performance of specific coal dust explosion control measures for an underground coal mine.
- Plan and schedule audits in compliance with legislation and standards.
- Ensure specific coal dust explosion control measures are implemented appropriately as per standards.
- Recommend activities or resources as per risks levels and legislation.
- Apply the legislative requirements for gathering, recording, evaluating, monitoring or reviewing data and information.
- Reviewing documents as part of the auditing process.

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 dust explosion control measures auditor of underground coal mines is to act consistently in accordance to legislation, standards and procedures. This includes:

- acting in a way that do not contravene existing legislation, standards and procedures even in situations of considerable internal or external pressure
- identifying situations where dust explosion control measures and/or standards are compromised.

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

- Act in accordance to legislation, processes and standards when undertaking the auditing process within a mine.
- Identify and report non-compliance as appropriate.
- Verify compliance requirements and remain objective.
- Fulfil responsibilities to the highest professional and ethical standards.

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 dust explosion control measures auditor of underground coal mines is to apply highly specialised theoretical and technical knowledge, skills and specific experience to understand and incorporate contingencies plans to accommodate change. This includes:

- auditing the dust explosion control measures and standards used at the mine and the SMS to institute change where necessary
- updating and realigning control plans and control measures to changing or emerging circumstances, without compromising compliance
- supporting others to implement changes as required by bringing to their attention opportunity for improvement and areas of good practice.

Behavioural tendencies to support the demonstration of Responsiveness to Change:

- Navigate uncertain, novel situations or ill-defined problems to identify when changes in the dust explosion control measures and standards are required under existing conditions.

- Use available evidence, information and expertise to reassess decisions based on new information.
- Consult, advise and support the implementation of the most optimal course of action.

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 dust explosion control measures auditor of underground coal mines is expected to demonstrate and apply highly specialised knowledge of advanced of dust explosion control measures and standards, and auditing processes. They should also be able to understand where to source additional information where required. The technical skills and knowledge include:

- 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 their obligations in auditing relevant to the SMS and standards.
- Demonstrate specialised theoretical and technical knowledge and skills in dust explosion control measures and standards.
- Operational planning.
- the scope, boundaries and performance of specific coal dust explosion control measures for an underground coal mine.
- Ability to identify gaps relevant to the dust explosion control measures and standards.
- Identify non-compliance to legislation.
- Monitoring and review of the performance of specific coal dust explosion control measures for all underground coal mines.

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

- Maintain an understanding of WHS hazards and risks in the mining operations, specifically for dust explosion control measures and standards.
- Audit principal hazards management plans for all applicable prescribed principal hazards in WHS (M&P) Regs 2014 relevant to dust control measures and standard.
- Nature of harm that could be caused by a hazard in the underground coal mine, how serious the harm could be and the likelihood of it happening.
- Mine ventilation principles, atmospheric gases and contaminants relevant to coal and dust control measures.

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

- Standards for the development, implementation and review of relevant control plans e.g. explosives.
- Implementation of relevant control plans.
- Verification of dust control measures and standards.

Specific control measures

- Verify that each dust explosion control measure is adequately supported by relevant systems within the SMS and standards.
- Systems for monitoring the performance of dust explosion control measures.
- Performance indicators to identify effectiveness and failure of dust explosion control measures.

Legislation

Apply a broad theoretical and technical knowledge of acts, regulations, approved codes of practice, standards, and guidelines relevant to the execution of their function, such as:

- *Work Health and Safety Act 2011* and Work Health and Safety Regulations 2011
- *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	<ul style="list-style-type: none"> • Emergency preparedness and response systems, evacuation, notification and response. • Health and safety issues relevant to dust control measures. • Procedures and conditions under which persons at the mine or a part of the mine are to be withdrawn to a place of safety. • Causes and prevention of mine incidents for the underground coal mine.
General WHS topics	<ul style="list-style-type: none"> • 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 associated non-technical skills	<ul style="list-style-type: none"> • Theoretical and highly specialised understanding of major changes for dust explosion control measures and standards. • Standards for audit and verification processes. • Audit and review processes and techniques. • Analytical techniques and processes relevant for auditing dust explosion control measures and standards. • Types of adverse environmental conditions and how it affects the dust explosion control measures and standards in an underground coal mine. • Communication channels and systems to report outcomes of an audit. • Document control and procedures for documenting relevant communications. • Recommended resources required to undertake auditing processes. • Contingency planning. • Changes in conditions that may impact on the dust explosion control measures. • Change management strategies to implement new or revised standards or procedures. • Implication of new information for both current and future problem-solving and decision-making, within their area of statutory responsibility.