



Australian Government

**Assessment Requirements for RIIUND401D
Apply and monitor the ventilation
management plan**

Release: 1

Assessment Requirements for RIIUND401D Apply and monitor the ventilation management plan

Modification History

Not applicable.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant legislation, documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient application and monitoring of the ventilation management plan including:
 - interpreting and applying a limited range of mathematical and scientific theorems/laws related to ventilation
 - collecting, collating and interpreting ventilation data
 - interpreting and applying ventilation device construction/installation specifications
 - conducting enquiries/investigations and preparing reports
 - accessing, interpreting and applying data from monitoring systems and equipment
 - applying risk management processes and techniques
 - initiating ventilation training
- demonstrates consistent and timely completion of applying and monitoring the ventilation management plan that safely, effectively and efficiently meet all of the required outcomes on a minimum of one (1) occasion including:
 - operating hand-held monitoring equipment
 - installing, monitoring and maintaining ventilation control device
 - monitoring, recording and reporting on mine ventilation, including defects to ventilation control devices
 - adjusting mine control devices
 - applying water management procedures
 - scheduling and carrying out inspections, repair and maintenance activities
 - reviewing and reporting on maintenance requirements and activities
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Knowledge Evidence

The candidate must demonstrate knowledge in applying and monitoring the ventilation management plan through:

- methods of mine ventilation and their applications/limitations
- methods of panel ventilation and their applications/limitations
- impact of mining techniques and mine and panel design on ventilation
- mine roadways and shafts and their impact on mine ventilation
- impact of geological characteristics and seam gradients on mine ventilation design
- impacts on the ventilation system of gas drainage, spontaneous combustion, outburst and windblast
- mine gases; the types and their characteristics, sources, physiological effects and methods of detection
- dust, fumes and other particulate matter; the types, sources, physical and physiological effect and control/mitigation methods
- mine fires; the types, sources of ignition, possible effects on the ventilation circuit and prevention/control/mitigation methods

- mine explosions; the types, ignition sources, possible effects on the ventilation circuits and prevention/control/mitigation methods
- pressure changes; causes, the impacts on the ventilation system, and responses
- heat/humidity; the sources and factors which may impact on mine ventilation and personnel
- fixed ventilation monitoring systems types, uses and limitations
- portable monitoring equipment, types, characteristics, uses and limitations
- ventilation surveys including the types, frequency and method for conduct including pressure/quantity/temperature and gas
- dust surveys for irrespirable quantity
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Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's work environment;
- where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed using Resources and Infrastructure Industry sector specific policies, procedures, processes and operational manuals; and,
- assessor requirements differ between sectors as follows:
 - when assessing this unit in the context of the **Metalliferous Mining** sector:
 - an assessor must demonstrate the skills and knowledge of this unit through five (5) years of current and continuous work with the Industry sector and must hold the TAE Assessor Skill Set or equivalent; or,
 - when assessing this unit in the context of the **Coal Mining** sector:
 - an assessor must demonstrate the skills and knowledge of this unit through twelve (12) month work experience in an Industry relevant to the skills being assessed within the last three (3) years; and,
 - where the assessor does not have current experience a co-assessment or partnership arrangement needs to exist between the qualified assessor and an Industry technical expert/ subject matter expert. The Industry technical expert/subject matter expert must demonstrate competency in the unit being assessed, and be currently working in the sector with a minimum of twelve (12) months' work experience within the last three (3) years.

Links

SkillsDMC RII Companion Volumes - <http://www.skillsdmc.com.au/>