



Australian Government

RIIMSM307D Install and maintain ventilation systems and equipment

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIISM307A Install and maintain ventilation systems and equipment
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to install and maintain ventilation systems and equipment in Metalliferous Mining (Small Mines).

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Metalliferous Mining (Small Mines)

Elements and Performance Criteria

1. Plan and prepare for installation and maintenance of ventilation systems and equipment	1.1. Access, interpret and apply ventilation systems and equipment documentation and ensure the work activity is compliant 1.2. Obtain, read, interpret, clarify and confirm work requirements 1.3. Identify and address potential risks, hazards and environmental issues, and implement control measures 1.4. Inspect and evaluate mine configuration, or obtain advice from appropriate source, to identify the most effective mine ventilation method 1.5. Determine ventilation system configuration and location of ventilation equipment and devices for effective mine ventilation
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	1.6. Identify and obtain required ventilation equipment and devices 1.7. Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency 1.8. Select and wear personal protective equipment appropriate for work activities
2. Install/construct ventilation system	2.1. Coordinate activities with others throughout the work activity 2.2. Prepare work site and establish a safe working environment 2.3. Install ventilation equipment in designated location 2.4. Construct ventilation device in designated location 2.5. Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment
3. Monitor and maintain mine ventilation system	3.1. Carry out inspections of ventilation equipment, devices and system to ensure safe efficient operation 3.2. Detect and measure airflow and adjust ventilation system to maintain adequate flow of air through the mine 3.3. Monitor and maintain mine air quality to identify impurities and contaminants to ensure respirability of mine air 3.4. Obtain and prepare necessary replacement materials/equipment required for the work 3.5. Carry out maintenance work 3.6. Process written and verbal records and reporting requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIMSM307A Install and maintain ventilation systems and equipment

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIISM307D Install and maintain ventilation systems and equipment

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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 applicable legislation, documentation, policies and procedures
- implements requirements, procedures and techniques for the safe, effective and efficient completion of installing and maintaining ventilation systems and equipment including:
 - selecting and using relevant tools & equipment
 - measuring and testing air flow and gas levels
 - identifying impurities
- works effectively with others to undertake and complete the installation and maintenance of ventilation systems and equipment that meets all of the required outcomes including:
 - communicating clearly and concisely with others to confirm instructions
 - organising and prioritising work activities
 - identifying and addressing the coordinating requirements
- demonstrates completion of installing and maintaining ventilation systems and equipment that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - determining ventilation system configuration and location requirements
 - inspecting ventilation equipment, devices and system to ensure safe efficient operation
 - measuring airflow and adjusting ventilation system to maintain adequate flow of air through the mine
 - identifying and obtaining required ventilation materials, equipment and devices

Knowledge Evidence

The candidate must demonstrate knowledge in installing and maintaining ventilation systems and equipment through:

- accessing, interpreting and applying legislative, organisation and site requirements and procedures for:
 - mine operation
 - risk management
 - gas monitoring and testing
 - air flow measurement
 - site environmental requirements and constraints
- accessing, interpreting and applying basic mine geology and survey information related to ventilation systems
- accessing, interpreting and applying types and applications of ventilation systems
- accessing, interpreting and applying ventilation equipment and device construction, processes and operating characteristics
- accessing, interpreting and applying ventilation device equipment and material characteristics
- identifying and addressing changing environmental conditions
- being prepared for fire/accident/emergency

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 must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,

- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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