



Australian Government

RIIMCU214E Conduct ventilation operations

Release: 1

RIIMCU214E Conduct ventilation operations

Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to conduct ventilation operations in coal mining, including auxiliary fan, venturi blower, stoppings and brattice line.

It applies to those working in operational roles. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Coal mining

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to conduct ventilation operations	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required to conduct ventilation operations 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures according to site requirements 1.4 Select and wear personal protective equipment according to site requirements 1.5 Access, interpret and apply mine environmental data required to complete allocated work 1.6 Obtain, transport and prepare materials and resources required for

ELEMENT	PERFORMANCE CRITERIA
	the work 1.7 Obtain and interpret emergency procedures and identify steps required to respond to emergencies
2. Ventilate operations	2.1 Communicate work activities with others within scope of own role 2.2 Prepare worksite according to job requirements 2.3 Install and extend brattice and vent tubes according to job and site requirements 2.4 Erect temporary stoppings to sequence plan according to job requirements 2.5 Monitor hazards and risks and confirm safe operation of plant and equipment 2.6 Report ventilation status according to site requirements
3. Maintain ventilation	3.1 Monitor ventilation conditions within scope of own role 3.2 Obtain, transport and prepare replacement materials and equipment according to job requirements 3.3 Carry out minor maintenance according to manufacturer specifications and site requirements 3.4 Carry out housekeeping activities according to site requirements 3.5 Maintain records and complete reports according to site requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	Calculates basic measurements and dimensions
Reading	Identifies and interprets information from workplace documentation
Self-management	Monitors and minimises own exposure to worksite risks and hazards during activities

Unit Mapping Information

Supersedes and is equivalent to RIIMCU214D Conduct face ventilation operations.

Links

Companion Volume implementation guides is found on VETNet -

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

Assessment Requirements for RIIMCU214E Conduct ventilation operations

Modification History

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- conduct ventilation operations on at least two occasions, including performing at least two of the following ventilation methods:
 - auxiliary fan (forcing and extracting)
 - venturi blower
 - stoppings
 - brattice line.

During the above, the candidate must:

- locate and apply required documentation, policies and procedures and confirm work activity is compliant
- implement the requirements, procedures and techniques for conducting ventilation operations, including:
 - identifying, addressing and reporting environmental issues, potential hazards and risks
 - applying equipment and manual handling techniques
 - selecting and using relevant tools and equipment
 - identifying work requirements
 - identifying gas content
 - installing and extending ventilation equipment
 - reading and interpreting ventilation plans
 - applying isolation and tagging
- work with others to conduct ventilation operations in a way that meets required outcomes, including:
 - communicating clearly and concisely with others to receive and clarify work instructions
 - complying with reporting requirements and procedures.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- key legislation required to conduct ventilation operations
- key policies, procedures and documentation required to conduct ventilation operations
- equipment characteristics, technical capabilities and limitations required for ventilation operations
- principles and techniques for applying ventilation methods, including:
 - auxiliary fan (forcing and extracting)
 - venturi blower
 - stoppings
 - brattice line
- principles and techniques for installing and extending brattices and vent tubes, including the following brattice methods:
 - wide side
 - narrow side
 - hurdles
 - wings
 - screens/stoppings
- gas characteristics relevant to ventilation operations, including inrush gases
- causes and effects of static electricity relevant to ventilation operations
- principles and techniques for auxiliary ventilation
- principles and techniques for applying sequence plans
- techniques for identifying and responding to relevant hazards, including those related to:
 - inundation inrush
 - gas
 - dust
 - static electricity
 - roof, floor and rib conditions
 - water accumulation
 - ventilating air recirculation
- basic maintenance techniques, including for the following equipment defects:
 - broken earth wires
 - damaged ventilation tubes
 - torn brattices
 - broken ventilation tube rubbers
- techniques for applying mine environmental data, requirements and constraints related to ventilation operations
- site requirements for housekeeping, completing maintenance records and reporting requirements, including reporting ventilation status.

- basic techniques for communicating job activities with others.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - personal protective equipment
 - equipment required to conduct ventilation operations
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work 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.

Assessor requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 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.	

*Guidance on simulated environments has been stipulated in the Companion Volume Implementation Guide located on VETNet.

**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 a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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