



Australian Government

Department of Education, Employment and Workplace Relations

RIIMCU214A Conduct face ventilation operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of face ventilation operations in the coal industry. It includes planning and preparing for operations, ventilating the face, and maintaining face ventilation. 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.

Application of the Unit

This unit is appropriate for those working in an assistant role at worksites within:

- Coal mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare for operations	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Receive and clarify face ventilation requirement details in the form of work requirements before proceeding 1.3. Access, interpret and apply mine environmental data required to complete the allocated work in accordance with site procedures 1.4. Obtain, transport and prepare materials and resources required for the work in accordance with the plan, site requirements and Hazchem procedures
2. Ventilate the face	2.1. Resolve coordination activities with others at the site prior to commencement of, and during, the work activity 2.2. Prepare worksite in accordance with site procedures to ensure a safe working environment 2.3. Install and extend brattice /vent tubes according to site procedures 2.4. Erect temporary stoppings in accordance with sequence plan and site requirements 2.5. Recognise and respond to hazardous and emergency situations in accordance with manufacturer's instructions and/or site procedures 2.6. Report ventilation status in accordance with site requirements
3. Maintain face ventilation	3.1. Carry out routine inspections in accordance with site requirements 3.2. Obtain, transport and prepare necessary replacement materials/equipment required for the work in accordance with the plan and relevant site requirements 3.3. Carry out minor maintenance to manufacturer's instructions and/or site requirements 3.4. Maintain records in accordance with site requirements.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to conduct face ventilation operations:

- apply legislative, organisation and site requirements and procedures for face ventilation operations
- apply operational safety requirements
- monitor and identify gas content
- identify hazards
- install and extend ventilation equipment
- read and interpret ventilation plans
- isolate and tag

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to conduct face ventilation operations:

- site personal and operational safety procedures
- site ventilation procedures and methods
- gas characteristics
- causes and effects of static electricity
- ventilation line installation and extension procedures
- auxiliary ventilation rules
- sequence plan
- isolation and tagging procedures
- degassing procedures
- reporting procedures

Evidence Guide

<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for face ventilation operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of face ventilation operations • working with others to undertake and complete the face ventilation operations in a way that meets all of the required outcomes • consistent timely completion of face ventilation operations that safely, effectively and efficiently meets the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • This unit must be assessed in the context of the 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 workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.

	<ul style="list-style-type: none"> • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete the face ventilation operations
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • OHS policy • code of practice • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Work requirements may be in the form of:</p>	<ul style="list-style-type: none"> • shift briefings • handover details • work orders
<p>Mine environmental data may be in the form of:</p>	<ul style="list-style-type: none"> • ventilation/gas data • deputy reports • geological data • survey data
<p>Brattice methods may include:</p>	<ul style="list-style-type: none"> • wide side • narrow side • hurdles • wings • screens/stoppings
<p>Work Requirement details may include:</p>	<ul style="list-style-type: none"> • equipment and plant, including any defects • cutting sequence • achievement targets • essential survey data • geological conditions • essential environmental information • hazards • potential hazards • coordination requirements / issues
<p>Types of ventilation methods may include:</p>	<ul style="list-style-type: none"> • auxiliary fan (forcing and extracting) • venturi blower • stoppings

	<ul style="list-style-type: none"> • brattice line
Defects of equipment may include:	<ul style="list-style-type: none"> • broken earth wire • damaged ventilation tubes • torn brattice • broken ventilation tube rubbers • fan malfunction
Potential hazards may include:	<ul style="list-style-type: none"> • gas • dust • static electricity • condition of roof, floor and rib • water accumulation • recirculation of ventilating air
Environmental monitoring may be for dust and gas.	

Unit Sector(s)

Coal Mining (Underground)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.