



Australian Government

Department of Education, Employment and Workplace Relations

RIIUMM202A Install and maintain vent

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the installation and maintenance of vents in the metalliferous mining industry. It includes planning and preparing for the installation of ventilations systems, installing and maintaining vents, removing vents, and conducting housekeeping activities. 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:

- Metalliferous 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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<ul style="list-style-type: none"> • Plan and prepare for the installation of ventilation systems 	<ol style="list-style-type: none"> 1.1. Access, interpret and apply <i>compliance documentation</i> relevant to the work activity 1.2. Plan and prepare work 1.3. Receive, interpret and clarify shift change over details 1.4. Select personal protective equipment appropriate for work activities 1.5. Inspect and assess site conditions to determine if scaling is required and take action 1.6. Select appropriate type of equipment according to job type and specifications 1.7. Perform <i>equipment pre-start checks</i> 1.8. Carry out start-up procedures 1.9. Identify, address and report potential risks and hazards 1.10. Communicate with other <i>equipment</i> operators and <i>personnel</i> using approved communication methods 1.11. Identify, address and report <i>environmental issues</i> 1.12. Adhere to emergency procedures 1.13. Use approved <i>dust suppression and extraction methods</i> 1.14. Ensure area is ventilated before entry into work area
<ol style="list-style-type: none"> 2. Install and maintain vent 	<ol style="list-style-type: none"> 2.1. Isolate and lock out ventilation devices 2.2. Install and test catenary cable or secure to existing ground support mechanisms where appropriate 2.3. Hang and secure ventilation bag using site procedure 2.4. Check vent for correct operation and replace and/or adjust vent if required
<ol style="list-style-type: none"> 3. Remove vent 	<ol style="list-style-type: none"> 3.1. Isolate and lock out ventilation devices 3.2. Loosen and disconnect vent support mechanisms 3.3. Remove <i>vent</i> whilst ensuring the <i>safety of personnel</i> and associated equipment and

	services 3.4. Seal any reticulation system openings correctly to minimise entry of foreign material
4. Conduct housekeeping activities	4.1. Clean <i>equipment</i> 4.2. Clean and store auxiliary services equipment 4.3. Pass on end of shift information to oncoming shift 4.4. Complete all required documentation

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 install and maintain vents:

- apply legislative, organisation and site requirements and procedures for installation and maintenance of vents
- operate, maintain and clean equipment
- interpret ground conditions
- repair vent bags
- use hand and power tools

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 install and maintain vents:

- equipment parking
- equipment processes, technical capability and limitations
- geological and technical data (basic)
- isolation procedures
- operational procedures and checks
- primary and secondary ventilation
- site procedures
- start-up and shutdown procedures
- underground procedures
- ventilation systems

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 installing and maintaining vents • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of vent installation and maintenance • working with others to undertake and complete the installation and maintenance of vents that meets all of the required outcomes • consistent timely completion of vent installation and maintenance 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

	<p>required on the job.</p> <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 installation and maintenance of vents
Guidance information for assessment	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

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 • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Vents may be secondary or temporary and include fans.</p>	
<p>Pre-start checks may include:</p>	<ul style="list-style-type: none"> • air filter restriction indicator • cab (horn, lights, air conditioner) • computer systems • display instrumentation and gauges (indicators, gauges, laser levels) • engine and stop engine lights (orange and red) • fluid levels (windscreen washer tank, hydraulic oil, coolant, grease, water, engine oil, fuel, transmission) • no kinks • no leaks • no tears • vent bag affixed in position • visual and audio warning devices and lights
<p>Equipment may include:</p>	<ul style="list-style-type: none"> • 4WD • cutting implements • elevating work platform • hand and power tools • integrated tool carrier • light trucks • velcro • minsup clip • recommended/required PPE
<p>Dust suppression and extraction</p>	<ul style="list-style-type: none"> • mobile/fixed sprays

methods may include:	<ul style="list-style-type: none"> • screens (vent doors, vent blinds) • use of water trucks • ventilation bags operational • watering down site • fans
Personnel may include:	<ul style="list-style-type: none"> • blasters • contractors • drillers • drivers • holders of appropriate tickets • licensed operators • maintenance staff • personnel authorised by mine management • service personnel • supervisors • surveyors • tradespersons
Legislation may include:	<ul style="list-style-type: none"> • Australian standards • environmental agencies regulations • Environmental Protection Act • isolation procedures • mine safety and health legislation and regulations • OHS legislation • lead code of practice
Environmental issues may include:	<ul style="list-style-type: none"> • dust • fumes • noise • water

Unit Sector(s)

Metalliferous Mining (Underground)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.