



Australian Government

Department of Education, Employment and Workplace Relations

RIIUMM305A Install and remove a secondary fan

Release: 1

RIIUMM305A Install and remove a secondary fan

Modification History

Not applicable.

Unit Descriptor

This unit covers the installation and removal of secondary fans in the metalliferous mining industry. It includes planning and preparing for the installation of secondary fans, installing and maintaining secondary fans, removing secondary fans, 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 operational 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
<p>1. Plan and prepare for the installation of secondary fan</p>	<p>1.1. Access, interpret and apply compliance documentation relevant to the work activity</p> <p>1.2. Plan and prepare work</p> <p>1.3. Receive, interpret and clarify shift changeover details</p> <p>1.4. Select personal protective equipment appropriate for work activities</p> <p>1.5. Inspect and assess site conditions to determine if scaling is required and take action according to site requirements</p> <p>1.6. Select appropriate type of equipment according to job type and specifications to maximise efficiency and effectiveness of work activities</p> <p>1.7. Perform equipment pre-start checks</p> <p>1.8. Carry out start-up procedures according to manufacturer's specifications and site procedures</p> <p>1.9. Identify, address and report potential risks and hazards</p> <p>1.10. Communicate with other equipment operators and personnel using approved communication methods according to site procedures</p> <p>1.11. Identify, address and report environmental issues</p> <p>1.12. Adhere to emergency procedures according to manufacturer's guidelines and site procedures</p> <p>1.13. Use approved dust suppression and extraction methods</p> <p>1.14. Ensure area is well ventilated before entry into work area according to site procedures</p>
<p>2. Install and maintain secondary fan</p>	<p>2.1. Isolate and lock out ventilation devices</p> <p>2.2. Install and/or check secondary fan installation structure for soundness</p> <p>2.3. Install and secure secondary fan using approved methods</p> <p>2.4. Check secondary fan for correct operation</p>

	in accordance with maintenance schedule and replace and/or adjusts as required
3. Remove secondary fan	<p>3.1. Isolate and lock out ventilation devices</p> <p>3.2. Safely loosen and remove secondary fan whilst ensuring the safety of <i>personnel</i> and associated equipment and services in accordance with site procedures</p> <p>3.3. Seal any reticulation system openings correctly to minimise entry of foreign material</p>
4. Conduct housekeeping activities	<p>4.1. Clean <i>equipment</i></p> <p>4.2. Clean and store auxiliary services equipment</p> <p>4.3. Pass on end of shift information to oncoming shift</p> <p>4.4. Complete all required documentation clearly, concisely and on time</p>

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 remove a secondary fan:

- apply legislative, organisation and site requirements and procedures for the installation and removal of secondary fans
- operate, maintain and clean equipment
- interpret ground conditions
- use hand/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 remove a secondary fan:

- working at heights
- equipment parking
- 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
- maintenance schedules
- types of secondary fans
- installation and removal methods for secondary fans

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 removing a secondary fan • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of secondary fan installation and removal • working with others to undertake and complete the installation and removal of a secondary fan that meets all of the required outcomes • consistent timely completion of secondary fan installation and removal 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 installation and removal of secondary fans
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>Secondary fan is any ventilation system other than the primary ventilation system, and may include:</p>	<ul style="list-style-type: none"> • air movers • screamers • booster • exhaust
<p>Secondary fan installation checks may include:</p>	<ul style="list-style-type: none"> • air filter restriction indicator • computer systems • display instrumentation and gauges (indicators, gauges, levels) • vibration • correct alignment • visual and audio warning devices and lights • types of fans • power source connection
<p>Equipment may include:</p>	<ul style="list-style-type: none"> • 4WD • cutting implements • elevating work platform • hand tools • integrated tool carrier • light trucks • recommended/required PPE
<p>Dust suppression and extraction methods may include:</p>	<ul style="list-style-type: none"> • mobile/fixed sprays • screens (vent doors, vent blinds) • use of water trucks • ventilation bags operational • watering down site

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 Acts and regulation dealing with:	<ul style="list-style-type: none"> • mining safety and health • mine inspection • OHS • explosives
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.