



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **RIIUND201A Install, maintain and recover reticulation systems**

**Release: 1**

## RIIUND201A Install, maintain and recover reticulation systems

### Modification History

Not applicable.

### Unit Descriptor

This unit covers the installation, maintenance and recovery of reticulation systems in the resources and infrastructure industries. It includes planning and preparing for installation of reticulation systems, installing and recovering service pipes, and carrying out ongoing maintenance. 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
- 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 installation of reticulation system</p>	<p>1.1. Access, interpret and apply <b>compliance documentation</b> relevant to the work activity</p> <p>1.2. Plan and prepare work for installation of <b>reticulation systems</b> according to site procedures and relevant legislation</p> <p>1.3. Obtain, interpret and clarify/confirm <b>work requirements</b> before proceeding</p> <p>1.4. Access and apply <b>safety information (OHS) and procedures</b> throughout the work</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 and prepare <b>materials</b> required for task</p> <p>1.7. Communicate with other personnel and coordinate work activities with others prior and during operation</p> <p>1.8. Identify, address and report potential hazards, risks and <b>environmental issues</b>, and adhere to emergency procedures</p> <p>1.9. Use approved <b>dust suppression and extraction methods</b></p> <p>1.10. Ensure area is well ventilated before entry into work area</p>
<p>2. Install and recover service pipes</p>	<p>2.1. Install service pipe support systems according to site procedures and standards</p> <p>2.2. Carry out isolation, tagging and re-energising procedures</p> <p>2.3. Install and stabilise service pipes according to site procedures and standards</p> <p>2.4. Inspect and test installation to ensure functionality, safety and compliance with specifications</p> <p>2.5. Connect/recover supply to service pipes</p>
<p>3. Carry out ongoing maintenance</p>	<p>3.1. Inspect and assess site conditions to determine if <b>cable support systems</b> are required and take action</p> <p>3.2. Report on maintenance requirements</p> <p>3.3. Clean and store equipment</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, maintain and recover reticulation systems:

- apply legislative, organisation and site requirements and procedures for installation, maintenance and recovery of reticulation systems
- apply operational safety requirements
- access, read, interpret and apply technical information
- install, maintain and recover equipment and materials
- identify defects and damage
- comply with environmental requirements

### 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, maintain and recover reticulation systems:

- legislative requirements for air/water systems
- operational safety requirements
- mine operational procedures
- lifting techniques
- signalling procedures
- site environmental requirements and constraints related to water/air services
- site procedures
- start-up and shutdown procedures
- underground 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><b>Overview of assessment</b></p>	
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></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"> <li>• knowledge of the requirements, procedures and instructions for installation, maintenance and recovery of reticulation systems</li> <li>• implementation of requirements, procedures and techniques for the safe, effective and efficient completion of installation, maintenance and recovery of reticulation systems</li> <li>• working with others to undertake and complete the installation, maintenance and recovery of reticulation systems that meet all of the required outcomes</li> <li>• consistent timely completion of installation, maintenance and recovery of reticulation systems that safely, effectively and efficiently meet the required outcomes</li> </ul>
<p><b>Context of and specific resources for assessment</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assessment environment should not disadvantage the participant. For example,</li> </ul>

	<p>language, literacy and numeracy demands of assessment should not be greater than those required on the job.</p> <ul style="list-style-type: none"> <li>• Customisation of assessment and delivery environment should sensitively accommodate cultural diversity.</li> <li>• Aboriginal people and other people from a non English speaking background may have second language issues.</li> <li>• 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.</li> </ul>
<p><b>Method of assessment</b></p>	<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"> <li>• written and/or oral assessment of the candidate's required knowledge</li> <li>• observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• implementation of appropriate requirements, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>• consistent achievement of required outcomes</li> </ul> </li> <li>• first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• working with others to undertake and complete the installation, maintenance and recovery of reticulation systems</li> </ul> </li> </ul>
<p><b>Guidance information for assessment</b></p>	<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><b>Relevant compliance documentation</b> may include:</p>	<ul style="list-style-type: none"> <li>• legislative including Acts and regulations dealing with:             <ul style="list-style-type: none"> <li>• mining safety and health</li> <li>• mine inspection</li> <li>• OHS</li> <li>• explosives</li> <li>• environment</li> </ul> </li> <li>• organisational and site requirements and procedures</li> <li>• manufacturer's guidelines and specifications</li> <li>• Australian standards</li> <li>• Employment and workplace relations legislation</li> <li>• Equal Employment Opportunity and Disability Discrimination legislation</li> </ul>
<p><b>Reticulation system</b> may include:</p>	<ul style="list-style-type: none"> <li>• air</li> <li>• dropper manifold</li> <li>• junction</li> <li>• pump lines</li> <li>• sand fill</li> <li>• water (waste, fresh)</li> <li>• hanging ventilation duct</li> <li>• facility for isolation</li> </ul>
<p><b>Work requirements</b> may include:</p>	<ul style="list-style-type: none"> <li>• the nature and scope of work</li> <li>• equipment and plant, including any defects</li> <li>• achievement targets</li> <li>• related work activities</li> <li>• routes/plans</li> <li>• sequencing</li> <li>• working conditions</li> <li>• hazards</li> <li>• potential hazards</li> <li>• coordination requirements/issues</li> </ul>
<p><b>Safety information (OHS) and</b></p>	<ul style="list-style-type: none"> <li>• legislation and regulations</li> </ul>

<b>procedures</b> may include:	<ul style="list-style-type: none"> <li>• relevant Australian standards</li> <li>• management plans</li> <li>• OHS policy</li> <li>• code of practice</li> <li>• manufacturer's instructions</li> <li>• safe working procedures (or equivalents)</li> <li>• recognised standards</li> </ul>
<b>Materials</b> may include:	<ul style="list-style-type: none"> <li>• pipes</li> <li>• hoses</li> <li>• hydraulic hoses</li> <li>• clamps</li> <li>• hand tools</li> <li>• chains</li> <li>• rope</li> <li>• nylon straps</li> <li>• taps</li> <li>• fire hydrants</li> <li>• valves</li> <li>• hanging and support materials</li> </ul>
<b>Environmental issues</b> may include:	<ul style="list-style-type: none"> <li>• dust/fumes</li> <li>• leakage of service</li> <li>• noise</li> <li>• water</li> </ul>
<b>Dust suppression and extraction methods</b> may include:	<ul style="list-style-type: none"> <li>• mobile/fixed sprays</li> <li>• screens (vent doors, vent blinds)</li> <li>• use of water trucks</li> <li>• ventilation bags operational</li> <li>• watering down site</li> </ul>
<b>Cable support systems</b> may include:	<ul style="list-style-type: none"> <li>• chains</li> <li>• extended wire</li> <li>• hanger brackets</li> <li>• hanger bull halls</li> <li>• slings</li> </ul>

## Unit Sector(s)

Underground Mining



## **Competency field**

Refer to Unit Sector(s).

## **Co-requisite units**

Not applicable.