



Australian Government

Department of Education, Employment and Workplace Relations

RIIMCU206A Install, maintain and recover gas drainage systems

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the installation, maintenance and recovery of gas drainage systems in the coal mining industry. It includes: planning and preparing for operations, installing and recovering services, and carrying out operator 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 the 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. Obtain, transport and prepare materials and resources required for the work in accordance with the plan and relevant manufacturer and/or site requirements.
2. Install and recover services	2.1. Resolve coordination activities with others at the site prior to commencement of, and during, the work activity. 2.2. Establish and monitor safe work environment throughout the job. 2.3. Install services in accordance with site specific installation instructions and practices. 2.4. Identify and mark services in accordance with site hazards. 2.5. Inspect and test installation to ensure functionality, safety and compliance with specifications. 2.6. Recognise and respond to hazardous and emergency situations in accordance with manufacturer's instructions and/or site procedures. 2.7. Recover services systematically, in accordance with authorised mine procedures and with minimal loss and damage to the recovered equipment and the site.
3. Carry out operator maintenance	3.1. Inspect and maintain services in accordance with legislative requirements and site procedures. 3.2. Process reports on gas drainage maintenance requirements in accordance with legislative requirements and site procedures.

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 applied. This includes the ability to carry out the following, as required to install, maintain and recover gas drainage systems:

- apply legislative, organisation and site requirements and procedures for installing, maintaining and recovering gas drainage systems
- apply operational safety requirements
- read, interpret and apply technical information
- install, maintain and recover equipment
- identify potential hazards
- apply equipment/manual handling techniques
- identify defects
- isolate, tag and drain
- use relevant hand tools
- 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 applied. This includes knowledge of the following, as required to install, maintain and recover gas drainage systems:

- site operational safety procedures
- legislative and environmental requirements related to gas drainage
- site operational procedures
- gas characteristics
- gas related safety requirements and emergency procedures
- gas drainage installation, recovery and maintenance techniques
- gas drainage equipment characteristics, technical capabilities and limitations
- gas drainage operational and maintenance procedures

Evidence Guide

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.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	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: • knowledge of the requirements, procedures and instructions for installing, maintaining and recovering gas drainage systems • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of the installation, maintenance and recovery of gas drainage systems • working with others to undertake and complete the installation, maintenance and recovery of gas drainage systems in a way that meets all of the required outcomes • consistent timely completion of the installation, maintenance and recovery of gas drainage systems that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	• 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. • 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	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: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • 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: • working with others to undertake and complete the installation, maintenance and recovery of gas drainage systems
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

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.

Relevant compliance documentation may include:	• 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 • shift briefings • handover details, and/or • management plan • OHS policy • code of practice • work orders
Work requirements may include:	• nature and scope of job • hazards and work environment • related work activities • sequencing of work
Materials required may include:	• bolted pipes • victaulic pipes • AS clamps • earthing equipment • hand tools • clearance indicators • material handling machinery • indicator and warning signals • hanging and support materials • water / coal fines separator • FRAS hose • valves and outlets • flame arrestor • breathing apparatus
Operator (operational) maintenance procedures are those	

established and authorised for the site.	
Gas to be drained may include:	• methane • carbon dioxide • other seam gases
Method of drainage may be:	• vacuum • free flow
Specific safety requirements are to include:	• observance of safety tagging procedures • isolation

Unit Sector(s)

Coal Mining (Underground)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.