



Australian Government

Department of Education, Employment and Workplace Relations

RIISAM403A Commission/recommission plant

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the commissioning and recommissioning of plant in the metalliferous mining industry. It includes: contributing to the design of plant and/or equipment; participating in hazard and operability studies; participating in acceptance of plant and/or equipment; conducting test runs and/or trials; evaluating the results and identify modifications.

Application of the Unit

This unit is appropriate for those working in supervisory or technical specialist roles, 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

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. Contribute to the design of plant/equipment	1.1. Access, interpret and apply compliance documentation relevant to commissioning and recommissioning of plant 1.2. Apply process understanding to the design process 1.3. Identify the role and purpose of the plant and equipment 1.4. Ensure design meets the identified need
2. Participate in hazard and operability studies	2.1. Identify process conditions and apply to hazard and operability studies 2.2. Undertake investigations following hazard studies 2.3. Record and report findings
3. Participate in acceptance of plant/equipment	3.1. Undertake pre Commissioning activities 3.2. Complete safety acceptance documentation 3.3. Identify, record and report problems or non-conformances
4. Conduct test runs/trials	4.1. Conduct trials/test runs 4.2. Record and report performance data
5. Evaluate results and identify modifications	5.1. Identify modifications and improvements required 5.2. Complete documentation and report to appropriate personnel

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 in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to commission or recommission plant:

- apply legislative, organisation and site requirements and procedures
- apply policy management procedures
- liaise with other parties
- coordinate others
- manage information
- apply problem solving techniques
- apply clear report writing techniques
- access, interpret and apply technical and safety information
- communicate and coordinate activities with others
- apply plant and equipment record keeping requirements and procedures
- apply diagnostic/faultfinding techniques
- apply environmental compliance requirements and procedures
- apply task analyses
- apply atmospheric contaminant measure requirements and procedures
- apply First Aid
- apply fire fighting techniques
- apply negotiation procedures with employers and employees
- provide information, instruction, training and supervision
- apply procedures for proposing practical recommendations for identified key issues

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to commission or recommission plant:

- HAZOP study process and the interpretation of findings
- results and impact of a HAZAN study
- the process of hazard identification, risk assessment and control
- hierarchy of control
- sources of hazard information (such as material safety data sheets)
- principles of operation of equipment
- interpretation of design drawings, schematics and manuals
- principles of operation of instrumentation

- principles of basic control systems
- distinguish between the following problem sources, and their avoidance:
 - chemical
 - instrument
 - equipment (electrical/mechanical)
- maintenance as is relevant to the practical operation of equipment at that job level
- identifying and clearly communicating key issues

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 the commissioning and recommissioning of plant • implementation of appropriate procedures and techniques for the safe, effective and efficient commissioning or recommissioning of plant • working with others to plan, prepare and conduct commission or recommission plant • provision of clear and timely instruction and supervision by the individual of those involved in commissioning or recommissioning of plant • evidence of the consistent successful commissioning or recommissioning of plant
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. • 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. • 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. • 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 procedures and techniques for the safe, effective and efficient achievement of the required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to plan, prepare and conduct the commissioning or recommissioning of plant • provision of clear and timely instruction and supervision by the individual of those involved in the conduct of the commissioning or recommissioning of plant
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, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Hazards may include:	• rail and road movement • cranes • molten metal • hot materials • noise • air pollution • sharp objects • moving machinery • heights • falling objects • gases
Documentation may include:	• tonnages • quality • analysis/testing • identity • tracking

Unit Sector(s)

Service and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.