



Australian Government

Department of Education, Employment and Workplace Relations

RIIRAI504A Select and install surface plant and equipment

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers selecting and installing surface plant and equipment in the metalliferous mining and extractive industries. It includes: identifying the need, selecting, justifying and recommending acquisition of plant and equipment; managing the installation and commissioning of plant and equipment; and reviewing and reporting on the outcomes of the acquisition of plant and equipment.

Application of the Unit

This unit is appropriate for those working in management and technical specialist roles, within:

- Extractive industries
- 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. Identify plant and/or equipment need	1.1. Access, interpret and apply the compliance documentation relevant to the selecting and installing of surface plant and equipment 1.2. Involve internal and external stakeholders in the identification process in a way that uses their contribution effectively and gains their support for the outcomes 1.3. Identify parameters to be applied in the selection of the plant and/or equipment based on relevant requirements 1.4. Draft the specification for plant and/or equipment that meets the requirements of the identified parameters
2. Select plant and/or equipment	2.1. Involve internal and external stakeholders in the selection process in a way that uses their contribution effectively and gains their support for the outcomes 2.2. Identify options that meet the selection parameters 2.3. Gather, validate and assess the data on the various options relevant to the selection parameters 2.4. Analyse the various options and select the option that best meets the required parameters
3. Justify and recommend acquisition of plant/ equipment	3.1. Involve internal and external stakeholders in the justification and recommendation process in a way that uses their contribution effectively and gains their support for the outcomes 3.2. Draft the recommendation for the selected plant and/or equipment 3.3. Present the recommendation for plant and/or equipment to be acquired relevant persons
4. Manage the installation of plant and/or equipment	4.1. Inform internal and external stakeholders of the outcomes of the approval process and involve them in the planning for and conduct of the installation of plant and/or equipment in a way that uses their contribution effectively and gains their

	support for the outcomes 4.2. Select suppliers and contractors 4.3. Issue orders and/or contracts for the initiation of the project 4.4. Supervise and coordinate the safe, effective and efficient installation of the plant and/or equipment 4.5. Ensure records of cost are maintained and monitor costs against the budget
5. Manage the commission of plant and/or equipment	5.1. Involve internal and external stakeholders in the commissioning process in a way that uses their contribution effectively and gains their support for the outcomes 5.2. Conduct risk assessment of new plant/equipment to determine treatment measures to be applied 5.3. Develop or revise operating procedures to take into account the requirements and characteristics of the new plan and/or equipment and the outcomes of the risk assessment 5.4. Provide training for all relevant personnel to cover any requirements of the new plant and/or equipment and the outcomes of the risk assessment 5.5. Supervise the operation, testing and adjustment of the plant/equipment and assess and record its performance against the specification 5.6. Acknowledge the completion of the installation and commissioning of the plant and/or equipment in accordance with the terms of the contract
6. Review and report on outcome of plant and/or equipment acquisition	6.1. Develop strategies and reporting mechanisms for the ongoing reporting of performance of plant and/or equipment 6.2. Ensure installation records and reports are maintained and forwarded to relevant personnel 6.3. Establish feedback mechanisms to ensure that the planning processes and outcomes are continuously improved 6.4. Review and report on the performance of suppliers or contractors and plant and

	equipment against specification and contract requirements and general performance
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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 select and install surface plant and equipment:

- apply legislative, organisation and site requirements and procedures
- apply procedures for the drafting and interpretation of specifications/interpret tender documents
- apply procedures for the drafting and interpretation of contract management documents
- apply and manage purchasing procedures
- apply capital expenditure applications preparation requirements and procedures
- apply contract management requirements and procedures
- apply procedures for the assessing of operating capacity
- apply procedures for the assessing of the compatibility of items of plant and equipment
- apply procedures for determining ownership cost
- apply procedures for determining operating cost targets
- apply procedures for determining product support requirements
- apply procedures for identifying market considerations
- apply procedures for identifying operational considerations

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 select and install surface plant and equipment:

- risk management
- statutory compliance requirements
- development approval, mining licences (or equivalent)
- OHS requirements
- environmental management requirements
- quality requirements
- purchasing requirements and procedures
- capital expenditure requirements and procedures
- contract management requirements and procedures
- administration requirements (including records and reports)
- plant and equipment characteristics

- specification requirements
- contract requirements
- operating cost record and analysis procedures
- product support requirements
- market information
- operational requirements
- approved suppliers

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 selection and installation of surface plant and equipment • implementation of procedures and techniques for the safe, effective and efficient selection and installation of surface plant and equipment • the identification of the relevant information and scope of the work required to meet the required outcomes • the identification of viable options and the selection of options that best meet the required outcomes • working with others to undertake and complete the selection and installation surface plant and equipment • consistent successful selection and installation of surface plant and equipment
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 civil works environment. Selection and use of resources for particular worksites may differ due to 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 • identification of the relevant information and scope of the work required to meet the required outcomes • identification of viable options and the selection of plant and equipment that best meet the required outcomes • consistently achieving the required outcomes • first hand testimonial and documentary evidence of the candidate's: • working with others to undertake and complete the selection and installation of surface plant and equipment • provision of clear and timely required

	support and advice on the selection and installation surface plant and equipment
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.

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
Parameters may include:	• physical size • operating capacity • other performance criteria • quality criteria • occupational health, safety and environmental features required • compatibility with existing plant and equipment • capital cost limitation • ownership cost • operating cost targets • nominated suppliers • product support requirements • training to be provided by supplier • maximum downtime requirements
Relevant requirements may include:	• market considerations • operational considerations • compatibility with existing plant and equipment • capital cost limitations • limitations on downtime • approved suppliers

Unit Sector(s)

Resources and Infrastructure

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.