



Australian Government

Department of Education, Employment and Workplace Relations

RIIWBP202A Distribute tailings

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers distribution of tailings in coal and metalliferous mining and extractive industries. It includes: planning and preparing; starting up equipment; monitoring and dispersing tailings; conducting housekeeping activities; and shutting down and/or isolating equipment.

Application of the Unit

This unit applies in all contexts to the distribution of tailings as part of the processing cycle. This unit is appropriate for those working in operational roles, at worksites within:

- Coal mining
- 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. Plan and prepare	1.1. Access, interpret and apply compliance documentation relevant to distribution of tailings 1.2. Receive, interpret and clarify shift changeover details 1.3. Communicate with other personnel using approved communication methods 1.4. Select personal protective equipment appropriate for work activities 1.5. Select appropriate type of auxiliary equipment for work activities 1.6. Perform equipment pre-start checks 1.7. Identify, address and report potential risks and hazards 1.8. Identify, address and report environmental issues 1.9. Adhere to emergency procedures 1.10. Use approved dust suppression and extraction methods 1.11. Prepare site for positioning of equipment 1.12. Position and stabilise equipment according to work plan
2. Start-up equipment in sequence	2.1. Carry out start-up procedures and complete start-up checks according to plant configurations and system requirements 2.2. Confirm plant is operational
3. Monitor and disperse tailings	3.1. Read and interpret data from equipment indicators to determine deposition parameters 3.2. Continuously inspect plant and identify defects and potential problems 3.3. Adjust equipment to approved operating parameters to optimise performance, maintain efficiency and to meet tailings quality targets 3.4. Control feed to equipment 3.5. Monitor bunded areas and manage overflows

	3.6. Complete all required documentation 3.7. Identify, address and report hazards 3.8. Report spillages to meet environmental guidelines 3.9. Pass on end of shift information to oncoming shift 3.10. Ensure tailings meet fill plant operating parameters
4. Conduct housekeeping activities	4.1. Clean equipment to maintain condition of equipment and ensure safe and efficient operations 4.2. Clean and store auxiliary service equipment
5. Shutdown in sequence and/or isolate equipment	5.1. Flush lines to remove all material 5.2. Shutdown or isolate equipment based on process and safety requirements 5.3. Perform post shutdown or isolation checks

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 distribute tailings:

- apply legislative, organisation and site requirements and procedures
- maintain, clean and operate, equipment
- apply hazard identification procedures
- apply hazardous goods handling requirements and procedures
- interpret reports
- apply lifting techniques (manual, cranes and loads)
- apply records maintenance requirements
- apply safe work practices
- use hand and power tools

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 distribute tailings:

- breakdown procedures
- emergency procedures
- environmental procedures
- equipment processes, technical capability and limitations
- equipment safety requirements
- flushing lines
- hazard identification and management
- identifying repair requirements
- isolation procedures
- metallurgical and technical data (basic)
- occupational health and safety procedures
- operational procedures and checks
- pumping system
- reclaim ponds/dams
- safety requirements
- securing pipes
- security procedures (e.g. shutting of gates)
- site procedures
- spillage procedures
- tailings

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| <ul style="list-style-type: none">• wet and dry working procedures |
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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 distribution of tailings • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of the distribution of tailings • working with others to undertake and complete the distribution of tailings that meets all of the required outcomes • consistent timely completion of the distribution of tailings 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. • 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 the work 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 requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete the distribution of tailings
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
Auxiliary equipment may be anything that is portable and mobile that is not part of the fixed infrastructure: These may include:	• compressors • cyclones • hand and power tools • hoses (water and air) • lines and ropes • loaders, pontoons, boats • thickening agents (e.g. de-scaling)
Pre-start checks may include:	• availability of equipment • detection of conditions that are unusual • drive through plant • personnel availability
Environmental issues may include:	• drainage • dust • emissions • flora and fauna • hazardous chemicals • recycling (e.g. water) • run-off/spills • waste management and disposal • water quality
Start-up procedures may include:	• checking interlocks • checks distribution control system (DCS) • chutes • drive belts • isolations

	• material transfer system condition (e.g. leaks, blockages) • pumping system • remote systems (e.g. telemetry) • valves
Plant may include:	• decant towers and ponds • pumps and siphons • spigots • tailings pipeline • valves
Indicator readings may measure:	• concentration (e.g. cyanide) • current • density • flow • levels • pressure • speed (e.g. pump) • unusual noises
Monitoring may include the checking of:	• blockages • current draw • detecting noises and smells • flow rates • missing components (e.g. spigots) • overloads • pressures • spillages • wear and tear
Overflow areas may include:	• collection dams • scour pits
Cleaning methods may include:	• hosing with water
Materials may include:	• reagents • slurry • tailings • water
Post-shutdown checks are:	• beaching • density • location of discharge points • regulate decant water removal • relocation of spigots

Unit Sector(s)

Waste and By-products

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.