



Australian Government

Department of Education, Employment and Workplace Relations

CPPWMT3016A Operate waste processing plant

Release: 1

CPPWMT3016A Operate waste processing plant

Modification History

Revised unit

Unit updated and equivalent to PRMWM16B Operate waste processing plant

Unit Descriptor

This unit of competency specifies the outcomes required to operate a waste processing plant to prepare waste for disposal or recycling. It requires the ability to analyse practices in order to organise and implement activity.

Application of the Unit

This unit of competency supports individuals with responsibilities for implementing waste management activity in a processing plant. It includes contributing to the implementation of developed operational procedures, as well as recognising the need for expert advice.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

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.

Elements and Performance Criteria

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| 1 | Organise for plant operation. | 1.1 | <i>Job specification requirements or job sheet</i> are reviewed with supervisor or <i>client</i> to identify <i>plant</i> operating requirements. |
| | | 1.2 | <i>Potential hazards and risks</i> to work are identified and handled according to job requirements, occupational health and safety (OHS) regulations, <i>organisational requirements</i> , and <i>relevant legislation and codes</i> . |
| | | 1.3 | <i>Equipment, materials</i> and <i>personnel requirements</i> are identified to suit <i>waste categories</i> and organised for safe operating procedures. |
| | | 1.4 | <i>Emergency and personal protective equipment</i> (PPE) is selected and fitted according to work requirements, manufacturer specifications, organisational requirements and relevant legislation and codes. |
| 2 | Conduct pre-operational checks. | 2.1 | <i>Pre-start visual</i> and <i>basic maintenance checks</i> are conducted according to manufacturer specifications, organisational requirements and relevant legislation and codes to confirm correct plant operation. |
| | | 2.2 | Equipment systems are tested for correct functioning according to manufacturer specifications and organisational requirements. |
| | | 2.3 | Equipment <i>non-conformances</i> are reported promptly to supervisor or team leader when detected. |
| | | 2.4 | Equipment is cleaned to ensure safe and tidy operation according to organisational requirements and relevant legislation and codes. |
| | | 2.5 | <i>Safety structures and controls</i> are checked to ensure their operational capacity complies with organisational requirements and relevant legislation and codes. |
| 3 | Start plant. | 3.1 | Appropriate personnel are advised of impending plant operation to ensure safety and readiness for operation. |
| | | 3.2 | Plant is started according to manufacturer specifications and organisational requirements. |

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| | | 3.3 | Plant inputs are screened and non-conformances are identified and handled according to organisational requirements, manufacturer specifications and relevant legislation and codes. |
| | | 3.4 | Communication with other personnel is maintained to ensure safe usage of equipment in a manner that complies with organisational requirements. |
| 4 | Operate and shut down plant. | 4.1 | Plant is operated efficiently and safely, using safety structures and controls according to organisational requirements, manufacturer specifications and relevant legislation and codes. |
| | | 4.2 | Gauges and warning devices are monitored to ensure optimal plant operation, identify potential faults and hazards, and ensure continuous operation. |
| | | 4.3 | Plant inputs, processing and outputs are monitored and adjustments made where necessary according to organisational specifications. |
| | | 4.4 | Faults that create hazardous operations are identified and reported on, and operations are then suspended according to organisational requirements and manufacturer specifications. |
| | | 4.5 | Plant is shut down according to manufacturer specifications and organisational requirements. |
| 5 | Carry out basic housekeeping. | 5.1 | Plant and associated equipment are cleaned to remove debris and contamination and ensure safe and efficient operation. |
| | | 5.2 | Housekeeping is conducted to ensure cleanliness of plant. |
| | | 5.3 | Record of plant operation is completed promptly and according to organisational requirements. |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- interpersonal skills to work in a team environment
- literacy skills to:
 - document and keep records
 - report waste processing activity
 - read and interpret:
 - job sheets
 - gauges and indicators
 - work requirements and material safety data sheets (MSDS)
- oral communication skills to:
 - ask questions
 - follow instructions
 - provide clear information
 - listen actively
- problem-solving skills to:
 - maintain plant and equipment
 - select plant and equipment
- waste processing technical skills to:
 - operate and clean plant and equipment
 - apply waste processing techniques
 - maintain plant components
 - apply plant shut-down, lock-out and isolation procedures
- technology skills to use computers
- problem-solving skills to:
 - identify hazards and risks
 - identify waste types, including regulated waste and waste non-conformance
 - segregate waste types, including potentially hazardous wastes
 - segregate valuable resources in waste
- self-management skills to:
 - apply signalling techniques
 - conduct work practices safely and efficiently
 - organise work methodically
 - handle chemicals and additives

- handle waste non-conformances
- use emergency and PPE
- use hand and power tools

Required knowledge

- identification of:
 - waste sorting techniques
 - waste contaminants
 - waste non-conformances
 - waste types, streams and characteristics
 - waste disposal and recovery routes
 - waste processing plant types
- OHS requirements relating to:
 - dangerous goods and hazardous substances
 - OHS hierarchy of control
- plant, equipment and materials to facilitate:
 - operation of waste processing plant and equipment
 - cleaning and maintenance of plant and equipment
 - plant shut-down, lock-out and isolation procedures
 - recycling
 - standard maintenance requirements
- potential hazards and risks relating to:
 - waste processing
 - operating plant and equipment
 - emergency response procedures
- service requirements for waste processing, including:
 - client requirements
 - duty of care
 - organisational requirements
 - reporting requirements
 - waste management options
 - waste management hierarchy
 - waste management processing techniques
 - waste management business methods and operations
 - waste site management plan

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	This unit of competency could be assessed by observation of practical demonstration in the workplace or in a simulated environment operating a waste processing plant.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	A person who demonstrates competency in this unit must be able to provide evidence of the required skills and knowledge specified in this unit. In particular the person should demonstrate the ability to: • identify and organise plant, equipment, materials and personnel requirements • select emergency and PPE requirements • identify potential hazards and risks to plant operation • identify and handle equipment non-conformances • observe OHS requirements.
Context of and specific resources for assessment	Assessment of essential underpinning knowledge may be conducted in an off-site context. It is to comply with relevant regulatory or Australian standards' requirements. Resource implications for assessment include: • work plans and approved specifications • forms and procedures manuals.
Method of assessment	The operation of a waste processing plant must comply with industry expectations in the particular client environment. If the environment is narrowly defined or is not representative of industry needs, it may be necessary to refer to portfolio case studies to assess competency in the operation of a waste processing plant. Assessment methods must: • satisfy the endorsed Assessment Guidelines of the Property Services Training Package • include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application • reinforce the integration of employability skills with workplace tasks and job roles • confirm that competency is verified and able to be transferred to other circumstances and environments.
Guidance information for	Reasonable adjustments for people with disabilities must be made to

assessment	assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support. Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed. This unit could be assessed on its own or in combination with other units relevant to the job function, for example: • CPPCMN2002A Participate in workplace safety arrangements • CPPCMN3003A Contribute to workplace safety arrangements • CPPWMT2034A Maintain equipment and consumables storage area • CPPWMT3014A Manually sort waste • CPPWMT3038A Process waste • CPPWMT4037A Conduct minor maintenance and repairs on waste processing plant and equipment.
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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.

<i>Job specification requirements or job sheet</i> typically include:	• emergency and PPE requirements • equipment requirements • personnel requirements • plant operation requirements • potential hazards and risks • reporting requirements • site requirements • waste types to be processed • work schedules.
<i>Client</i> may include:	• all forms of business enterprises in this context, including: • government agencies • internal customers • local governments and councils • private and public companies • residents and ratepayers.
<i>Plant</i> may include:	• autoclaves • balers • bobcats • boilers • bunded areas • centrifuges • chippers • combustion • compactors • composters • computer hardware and software • conveyors • crushers • dozers and associated earthmoving equipment • forklifts • hammer mills • incinerators • loaders: • front-end

	• rear-end • tailgate • materials recovery facility • microwaves • pipes • processing plants, including size-reduction processing plant • tankers • safety structures and controls • separators • shredders • sorters • storage tanks • transfer station • treatment plants, including: • biological treatment plant • chemical treatment plant • liquid waste treatment plant • microwave treatment plant • physical treatment plant • treatment tanks • trucks: • articulated • open-bodied • rigid • tub grinders.
Potential hazards and risks are those identified by the organisation that may lead to:	• damage to plant, vehicle or property • harm to the environment • illness or injury to employees, contractors or the public • injuries resulting from manual handling and repetitive work.
Hazards and risks may include:	• broken glass • broken metal • compaction equipment • contamination • dust • fire • gases and fumes • hazardous waste (e.g. sharps) • narrow driveways • other vehicles and equipment • overhanging signs • projectiles

	• spark-producing equipment • unguarded conveyor belts • weather.
Organisational requirements may include information found in:	• briefing papers • job sheets • letters • memos • operations manuals • quality assurance documents • tender and contract documents • verbal or written instructions • work procedures.
Relevant legislation and codes may include:	• codes, including: • Australian Code for the Transport of Dangerous Goods by Road and Rail • industry • commonwealth, state and territory legislation, including: • anti-discrimination • environmental protection • equal employment opportunity • freedom of information • industrial • OHS • trade practices • road laws.
Equipment may include:	• barriers and warning signs • communications equipment • compactors • conveyors • generators • hoses • lifting equipment • loadshifting equipment • PPE • pumps • recording equipment • sampling equipment • scales • skips • sorting tables • storage containers

	• tools • trailers • trolleys • vacuums • weighbridge • waste containers.
Materials may include:	• cleaning chemicals • cleaning rags • consumables • cover materials • fuels • lubricants • office requisites • oils • road maintenance materials • treatment and processing chemicals • water.
Personnel requirements may include:	• briefing • knowledge required • licences required • occupational support • skills required • training.
Waste categories may include:	• solid (non-hazardous), e.g. construction and demolition • liquid (non-hazardous), e.g. chemical and aqueous • hazardous – regulated, prescribed, quarantined, medical and clinical • recoverable resources, e.g. recyclable and green waste.
Emergency and personal protective equipment must include:	• communications equipment • eye protection, such as goggles and protective glasses • eyewash kit • fire extinguishers • first aid kit • footwear • gloves • overalls and protective clothing.
Emergency and personal protective equipment could also include:	• breathing apparatus • emergency procedure guides • face shields or masks • hard hats • hearing protection

	• MSDS • spill kit.
Personal protective equipment must be:	• cleaned and fitted according to organisational requirements, manufacturer specifications and OHS requirements • worn when required according to organisational requirements • stored according to organisational requirements.
Pre-start visuals may include:	• blockages • checks to pinpoint any damage • component wear • leaks • obstructions • potential hazards to plant operation and personnel.
Basic maintenance checks may include checks on:	• fuel • hoses • lubrication • oil seals • tyres • water.
Non-conformances may include:	• conditions that are not acceptable by manufacturers' standards, regulatory bodies or organisational requirements • damaged equipment • equipment not operating in required condition.
Safety structures and controls may include:	• alarms • automatic plant shut-down buttons • barriers • cords and lanyards • earth leakage devices • guards • isolation and lock-out or tag-out procedures.
Housekeeping may include:	• high-pressure water or air-hosing • shovelling • sweeping out • using decontamination products • vacuuming.
Record of plant operations may include record of:	• checks completed • defects identified • downtime • equipment non-conformances • faults and breakdowns • hours of operation • housekeeping undertaken

	• incidents • materials used • repairs and adjustments • replacement of parts • servicing faults • stoppages • type, volume or amount of waste processed • waste non-conformances.
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Unit Sector(s)

Waste management

Custom Content Section

Not applicable.