



Australian Government

Department of Education, Employment and Workplace Relations

CPPWMT5061A Plan resource recovery

Release: 1

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Modification History

Revised unit

Unit updated and equivalent to PRMWM61A Plan resource recovery

Unit Descriptor

This unit of competency specifies the outcomes required to plan for resource recovery. It requires the ability to develop and apply policy, lead or manage operations, and liaise effectively with clients.

Application of the Unit

This unit of competency supports individuals working as a team leader or supervisor, with responsibilities for planning the organisation's resource recovery policies, procedures and programs. It includes the development of strategies, systems and plans, 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

1	Identify range of materials within the waste stream available for recovery.	1.1	Audit of <i>waste stream</i> is undertaken.
		1.2	Identification of needs is undertaken incorporating the source, frequency of disposal, method of transportation and manner in which loads are delivered for disposal.
2	Undertake feasibility study to assess the financial viability of a resource recovery operation.	2.1	Material recovery, storage, transport and sales processes are determined according to legislation and codes and organisational requirements .
		2.2	Market research is undertaken to assess demand for recovered material and products and current market values.
		2.3	Stakeholders are consulted to identify existing or potential recovery facilities.
		2.4	Level of stakeholder commitment to developing resource recovery strategies is determined.
3	Develop a resource recovery strategy.	3.1	Goals and targets to divert components of the waste stream are established based on audit or assessment, feasibility study outcomes and planning .
		3.2	Legislation, codes and organisational requirements are incorporated into strategy.
		3.3	Stakeholders are consulted to identify opportunities and risks to be considered in strategy.
4	Determine operational requirements.	4.1	Site requirements are assessed, including infrastructure requirements, zoning, environmental aspects and energy efficiency systems.
		4.2	Budgets are developed for plant, equipment and materials .
		4.3	Service requirements that may include education and customer service are identified.
		4.4	Human resources required to support strategy are identified.

- 4.5 Product marketing strategies are developed.
- 5 Determine strategy implementation.
 - 5.1 Resource ***development and implementation*** strategies are determined.
 - 5.2 Measures and methods to be used in monitoring plan outcomes are established.
- 6 Record resource recovery strategy.
 - 6.1 Resource recovery strategy is recorded in a logical and concise manner, with stakeholder input.
 - 6.2 Resource recovery strategy is completed, incorporating goals and targets.
 - 6.3 Resource recovery strategy is communicated to stakeholders.

Required Skills and Knowledge

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

Required skills

- analytical skills to:
 - develop diagnostic techniques
 - conduct feasibility analysis
 - research, plan and evaluate
 - list options through procedures, such as brainstorming
 - segregate waste types, including potentially hazardous waste
 - segregate valuable resources in composite materials
- critical thinking skills to develop resource recovery plan, including review of:
 - drawings
 - specifications
 - technical plans
 - material safety data sheets (MSDS)
 - strategies
- management skills to:
 - apply diagnostic techniques
 - organise work practices safely and efficiently
 - conduct complex problem solving
 - identify hazards and risks
 - use information technology to complete tasks
 - use emergency and personal protective equipment (PPE)
 - work in confined area
- reading skills to interpret:
 - data
 - drawings
 - specifications
 - technical plans
 - organisational policies
- critical thinking skills to plan resource recovery, identifying:
 - resource needs
 - hazards and risks
- oral communication skills to:
 - ask questions

- listen actively
- consult
- undertake facilitation and conciliation
- follow instructions
- present information
- written communication skills to:
 - report on resource recovery outcomes
 - prepare strategic documentation

Required knowledge

- environmental issues relating to:
 - life cycle of products: re-new, re-use and recycle
 - environmental regulations
 - renewable energy
- identification of:
 - hazardous waste
 - recoverable waste
 - waste to be used for recycling
 - waste types, streams and characteristics
 - waste non-conformances
 - unanticipated waste
 - waste non-conformance procedures
 - waste containment
 - waste disposal and recovery routes
- interpretation of ground conditions for:
 - dumping techniques
 - pushing techniques
 - mixing and applying fertiliser
 - planting seedlings by machine and hand
 - watering
- occupational health and safety (OHS) requirements relating to:
 - dangerous goods and hazardous substances
 - OHS hierarchy of control
- rehabilitation plan, including:
 - closure or rehabilitation
 - job requirements
- resource recovery options relating to:
 - valuable resources within materials
 - potential resources to be recovered
 - timeframe to recover resources

- recycling options
- industry standards
- environmental regulations and legislation
- waste assessment review, including:
 - analysing recovery practices
 - analysing previous assessment plans and assessment processes
 - outlining possible benefits and outcomes from conducting a waste assessment pertaining to resource recovery
 - incorporating standard audit requirements and procedures
 - incorporating nature and significance of waste minimisation hierarchy
- service requirements for resource recovery, including:
 - organisational requirements and structure, including workplace communication channels and procedures
 - legislation, regulations and codes of practice applicable to specific waste management functions
 - waste management options
 - waste management hierarchy
 - material recovery opportunities and market availability
 - market principles
 - stakeholder identification
 - planning and related approval processes
 - resource recovery infrastructure needs
 - waste audit techniques
 - waste assessment techniques
 - waste analytical methods
 - standard audit requirements and procedures
 - sampling techniques
 - duty of care

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 demonstration of the resource recovery planned.
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: - analyse data with regard to resource recovery potential and options for stakeholders - consult with clients to obtain information and support for recovery strategy - incorporate necessary information into resource recovery plan - synthesise technical, legislative, economic, environmental and OHS issues in relation to resource recovery options.
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 - results of sampling - forms and procedures manuals - surveys and reports.
Method of assessment	The process of planning resource recovery 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 planning resource recovery. 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 assessment	Reasonable adjustments for people with disabilities must be made to 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 of competency relevant to the job function, for example: • CPPWMT4003A Review, evaluate and document waste assessment findings • CPPWMT4006A Organise waste recovery • CPPWMT5004A Develop waste management strategies.

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>Audit</i> may include:	• client waste management survey • cost reductions • determining sort categories • developing waste management plan • eliminating other variables • environmental concerns • identifying recyclable waste • identifying waste management policy • identifying waste streams • isolating waste streams • process review • resource recovery • reviewing implementation of waste management plan • scope of activity • waste minimisation • valid and representative data.
<i>Waste streams</i> may include:	• chemical waste • construction and demolition • dangerous goods • green waste • hazardous substances • municipal waste • prescribed waste • putrescibles • quarantine • recyclable liquids • regulated waste • solid inert.
<i>Identification of needs</i> may include:	• barriers for the implementation of resource recovery options • infrastructure requirements for resource recovery requirements on site • market research to determine on or off-site needs for materials • related organisational requirements • review of client and stakeholder needs • review of legislative and other requirements

	audits or assessments of all waste and resource recovery streams and types of materials in those streams.
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.
Organisational requirements may include information found in:	- briefing papers - job sheets - letters - memos - operations manuals - policy and procedures documents - quality assurance documents - site development plans - tender and contract documents - training materials - verbal or written instructions - work procedures.
Market research may include:	- advertising the research - customer analysis - choice modelling - competitor analysis - marketing mix modelling - product research - risk analysis.
Stakeholders may include:	- clients - government agencies - processors - product buyers - waste and recycling contractors - waste generators.
Resource recovery	composting

strategies may include:	• energy recovery • material changes • re-use or recycling of materials on and off site • supply chain management.
Feasibility study may include:	• analysis of data and information to determine targets and goals specific to each stream and material • communication with government agencies and businesses to determine strategies and infrastructure availability • cost-benefit analysis • identification of barriers • identification of available and required resources • prioritisation of options.
Planning may include:	• implementation strategies, including: • MSDS • measurement and recording • OHS procedures • PPE • relevant legislation and codes • site contract requirements • work procedures • objectives pertaining to: • changes to processes and procedures • environmental issues • education and training • past and future reviews and audits • recycling requirements • reduction of waste • review strategies, including: • internal and external audits • monitoring statistics • monitoring personnel performance following training • undertaking quality control checks • reviewing effectiveness of new procedures and processes • formalising review strategies via re-planning • sampling • counting waste • targets, such as: • carbon emissions reduction • lean management • recycling rates

	• waste minimisation.
Site may include:	• business premises • landfill site • local government area • plant and factory • waste processing plant.
Site requirements may include:	• energy recovery • identification of sources of information and data • production processes and methods • purchasing procedures • quality assurance protocols • raw material requirements • recycling requirements • waste handling, storage and disposal processes.
Plant may include:	• autoclave • balers • boilers • banded areas • centrifuge • chippers • combustion • compactors • composters • computer hardware and software • conveyors • crushers • hammer mills • incinerator • materials recovery facility • microwave • pipes • processing plants, including size-reduction processing plant • 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 • tub grinders.
Equipment may include:	• barriers and warning signs • compactors • computer and associated hardware and software • conveyors • dozers • earthmoving equipment • forklifts • generators • hoses • lawnmowers • lifting equipment • loadshifting equipment • pumps • safety barriers and signage • sampling equipment • scales • scrapers • skips • sorting tables • storage containers • tractors • trucks: • articulated • rigid • vacuums • waste containers • weighbridge.
Materials may include:	• cell cover materials • cleaning fluids • cleaning rags • fertiliser • fuel • fuses • globes • gravel for wet weather tipping areas • lawn seed

	• lubricants • oil • pesticides • plant protection covers • plants • road repairing materials: • compacted materials • dirt • gravel • sand • water.
Service requirements may be found in:	• organisational requirement documentation • contractual documentation • legislation • policies • publications • verbal or written communications.
Development and implementation may include:	• contract negotiation • development of resourcing requirements, including budgets • education and training programs to upskill staff or contractors • market development • material segregation processes • monitoring and review of options • preparation of procedures and associated documents • programs to monitor contamination levels • promotional strategies.

Unit Sector(s)

Waste management

Custom Content Section

Not applicable.