



Australian Government

Department of Education, Employment and Workplace Relations

RTE2315A Operate a compost bagging process

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to set up, operate, adjust and shut down a compost bagging process. The unit also covers the process of handling and bagging bulk mulches, compost products and other value-added products such as potting mixes. The unit involves applying well-developed skills with some discretion and judgement and routine supervision. It requires taking responsibility for own work output.

Application of the Unit

Application of the unit

Compost is used as a general expression and includes recycled organic products from aerobic and anaerobic composting and vermiculture technologies.

This unit of competency applies to an employee of an enterprise engaged in commercial-scale composting operations. Work is likely to be performed as a part of a team.

This unit must be read in conjunction with the National Guidelines for Occupational Health and Safety Competency Standards for Operation of Load-Shifting Equipment and Other Types of Specified Equipment [NOHSC: 7019 (1992)].

Where work requires the use of load-shifting equipment, appropriate training/certification must be provided according to state and territory safety and licensing requirements.

Licensing/Regulatory Information

Refer to Application of the Unit

Pre-Requisites

Not applicable.

Employability Skills Information

Employability Skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where **bold italicised** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 1 Organise for bagging operations.	1.1 Job sheet or work order is reviewed to clearly identify product bagging requirements. 1.2 Product for bagging is confirmed and available to meet job requirements. 1.3 Equipment, materials and personnel requirements for safe, effective and efficient bagging operations are identified and organised. 1.4 Suitable personal protective clothing and equipment are selected, used, maintained and stored according to occupational health and safety (OHS) procedures.
2 2 Prepare bagging plant for use.	2.1 Machine components and related attachments are fitted and adjusted to meet safety requirements. 2.2 Materials for bag are fitted and adjusted to ensure efficient operation, according to manufacturer specifications. 2.3 Safety devices and alarm systems are checked for correct operation according to manufacturer specifications, enterprise procedures and relevant statutory requirements. 2.4 Routine pre-operational checks are carried out to meet enterprise procedures and manufacturer specifications. 2.5 Operational systems are checked, cleaned and calibrated, and batch number and operating parameters are entered as required to meet

production requirements.

- 2.6 Faulty plant or machinery is identified, safety tagged and reported promptly to supervisor according to enterprise procedures.
- 2.7 **OHS hazards** are identified, reported to supervisor and managed according to enterprise procedures.
- 2.8 **Environmental implications** associated with machinery operation are identified and reported to supervisor.
- 2.9 Product to be bagged is obtained and positioned as required to meet production requirements.

3 **3 Start and operate bagging plant.**

- 3.1 Operational area is checked, and personnel in operational area are informed of initiation of plant operation.
- 3.2 Risks to self, others and the environment are recognised and minimised according to enterprise and OHS procedures.
- 3.3 Product for bagging is loaded into the bagging plant hopper in required quantities.
- 3.4 Bagging plant is started up using correct sequence according to manufacturer specifications and enterprise procedures.
- 3.5 Bagging plant is operated in a **safe and controlled** manner, and monitored for performance and efficiency.
- 3.6 Input materials are monitored, and non-conformances clearly identified and handled according to enterprise procedures and manufacturer specifications.
- 3.7 Processing outputs are monitored and adjustments to plant operation are made to meet job specifications.
- 3.8 Out-of-specification product or process outcomes are identified and reported to supervisor and appropriate action is taken as directed.
- 3.9 Bagged product is labelled, palletised or stacked and wrapped according to enterprise procedures

and customer requirements.

- 4 **4 Shut down bagging plant.**
 - 4.1 Bagging plant and machinery shut-down procedures are carried out to manufacturer specifications and enterprise procedures.
 - 4.2 Routine maintenance of bagging plant and machinery is carried out to remove debris and contaminants and ensure safe and efficient operation.
 - 4.3 Bagging plant and equipment is cleaned, secured and stored according to manufacturer specifications and enterprise procedures.
 - 4.4 Unsafe plant or equipment is reported to supervisor and tagged or locked out.
- 5 **5 Maintain records.**
 - 5.1 Bagging **plant operational records** are maintained accurately and promptly according to enterprise procedures.
 - 5.2 Any required maintenance, damage, malfunctions and irregular performance of machinery is recorded and addressed according to enterprise procedures.
- 6 **6 Check product to confirm readiness for distribution.**
 - 6.1 Palletised or stacked product is inspected and checked to confirm compliance with job sheet and enterprise procedures.
 - 6.2 Product is transported to and positioned in holding area with labels and bar codes clearly visible.
 - 6.3 Supervisor or product dispatcher is informed of product readiness for dispatch according to enterprise procedures.
 - 6.4 Product awaiting distribution is checked for temperature rise during storage and any out-of-range readings are reported to supervisor.

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills include:

- calibrating bagging components
- communicating with work team and supervisor
- completing workplace records
- correctly using emergency and personal protective equipment
- demonstrating batch/product changeovers that maintain product quality and hygiene
- demonstrating safe and environmentally responsible workplace practices
- maintaining work area to meet housekeeping standards
- operating machinery and equipment to industry standards
- reading and applying manufacturer specifications, work instructions, maintenance plans and material safety data sheets (MSDS)
- recording and reporting equipment faults and workplace hazards and accidents.

Required knowledge includes:

- basic principles of the bagging process
- characteristics of product that is fit for bagging
- product quality and hygiene
- purpose of packaging, coding requirements and related legal requirements, including product weight
- basic operating principles of the equipment which may include:
 - operational understanding of main equipment components, status and purpose of guards,
 - equipment operating capacities and applications
 - purpose and location of sensors and related feedback instrumentation
- knowledge of services required and action to take if services are not available
- methods used to monitor the process
- inspection or test points (control points) in the process and related procedures and recording requirements
- equipment cleaning requirements
- flow of this process and effect on downstream processes
- packaging quality and seal integrity
- effect of variation in inputs which may include ingredient quality and condition, packaging components and consumables, and/or services on process performance
- OHS hazards and controls
- emergency and routine shutdowns and procedures to follow in the event of a power outage
- product and batch changeover procedures
- lock-out and tag-out procedures and responsibilities.

Evidence Guide

Overview of assessment

This unit of competency could be assessed on its own or in combination with other units of competency relevant to the job function such as:

RTC2210A Maintain properties and structures

RTC2701A Follow OHS procedures

RTE2507A Recognise raw materials, production processes and products on a composting site.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The critical requirements for this unit of competency as a whole are listed below.

Assessment must confirm one's ability to:

select and use various features and controls of a range of bagging plant

carry out work plans

determine appropriate operating methods

carry out routine maintenance and adjustments

report faults and workplace hazards

monitor operations

maintain records

apply safe and environmentally responsible workplace practices.

Context and specific resources for assessment

Assessment for this unit of competency is to be largely practical in nature and must be assessed in a commercial-scale composting facility or in a situation that reproduces and/or simulates operational conditions.

For valid assessment, one should have opportunities to participate in exercises, case studies and other real and simulated practical and knowledge assessments that demonstrate the skills and knowledge specified in this unit.

The candidate should also have access to the following resources:

compost bagging plant

load-shifting machinery

personal protective equipment

products and materials for handling and bagging

bagging plant cleaning equipment

job sheets.

Guidance information for assessment

To ensure consistency in performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities and, where possible, over a number of assessment activities.

The skills and knowledge required to demonstrate competency must allow for application in a broad industry context, and should be transferable to a range of work environments, including the ability to deal with unplanned events. For example, this could include work within compost bagging operations of varying scale; producing a range of different composts and value-added products to meet the demands of different markets; located in an urban or rural context with varying environmental constraints; and using various equipment, practices, technologies and management systems.

Range Statement

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 in the performance criteria is detailed below. Add any 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.

Typical **job sheet** information may include:

- authorisation
- bag specification
- batch number
- packaging instructions
- product specification
- product type and availability
- quantity required
- work schedule.

Personal protective clothing and equipment may include:

- appropriate footwear
- emergency procedure guides (EPGs) and emergency equipment such as:
 - fire extinguisher
 - first aid kit
 - eye wash kit
 - eye and hearing protection
 - face shields or masks
 - gloves
 - hard hats
 - high visibility clothing
- MSDS
- overalls
- respirator.

Typical **bagging plant** components may include:

- bagging closure
- chute
- control mechanisms
- hopper
- pallet.

Typical bagging **machine components** may include:

compressor
pallet tacking hot glue
sewing dolly
shrink wrapper
stapler.

Bag **materials** that may be fitted include:

pre-printed film
woven plastic (single) bags.

Safety devices and controls to be checked may include:

alarms
barriers
earth leakage devices
emergency stop devices and cords/lanyards
lock-out or tag-out procedures
reverse alarms
warning lights.

Routine **pre-operational checks** of machinery and equipment may include:

checking and confirming equipment calibration settings
checking fuel, oils and lubricants, electrolyte levels, wheels, tyre pressure, fanbelts, leads, lines, connections, air filters, brakes, clutch and lighting
identifying and segregating unsafe or faulty equipment for repair or replacement
inspecting safety guards
observing and monitoring noise levels for correct operation
preparing independently powered tools, which may include cleaning, priming and tightening, as well as basic repairs and adjustments
pre-start and safety checks, including the service and maintenance of cooling system.

OHS hazards:

may include:
biological hazards associated with compost dust
ergonomic hazards associated with:

manual handling
posture and vibration
exposure to loud noise and fumes
mechanical malfunctions and exposed moving parts
other machinery, including hydraulics and conveyors
physical hazards such as:
vehicles and mobile machinery
underfoot conditions
compressed air and water
sharps or other physical contaminants in materials

may be addressed by implementing systems and procedures for:

appropriate use, maintenance and storage of personal protective equipment
ensuring working loads are secure and within working specifications
hazard identification, assessment and reporting
outdoor work, including protection from solar radiation
protection from hazardous noise, mechanical vibration, and organic and other dusts
protection of people in the workplace
safe lifting, carrying and handling
safe operation and maintenance of machinery and equipment including hydraulics, and guarding of exposed moving parts.

Environmental implications associated with the operation of plant and machinery may include:

negative environmental impacts resulting from:

- excessive noise and exhaust emissions
- hazardous substances such as:
 - fuel
 - fertiliser
 - organic dusts
- incorrect use and disposal of maintenance debris such as:
 - oils containers
 - chemical residues
- run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities
- soil disturbance and dust problems from high speed and frequent traffic (including irrigation equipment).

Procedures for **safe and controlled** operation of machinery and equipment may include:

- appropriate selection and use of machinery and equipment
- effective communication between work team members
- maintaining working loads within specifications and operating at the correct height.

Plant operational records may include:

- amount of bagging materials used
- equipment non-conformances
- faults and breakdowns
- odometer legislation, including:
 - rights and responsibilities of employers and employees
- hierarchy of control as it applies to distances, hours of operation, incidents, stoppages and down time
- type and volume/amount of material processed.

Unit Sector(s)

Not applicable.