



Australian Government

PMBPROD259 Operate granulating equipment

Release: 1

PMBPROD259 Operate granulating equipment

Modification History

Release 1. Supersedes and is equivalent to PMBPROD259C Operate granulating equipment

Application

This unit of competency covers the skills and knowledge required to operate granulating equipment and ancillary equipment that is integral to the process. Granulating equipment is typically used in the plastics and rubber sectors to process virgin or recycled material into granules for further production.

This unit of competency applies to operators who are required to check materials and measurements, monitor operations and adjust equipment, maintain feed and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

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

Pre-requisite Unit

Nil

Competency Field

Production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Check work requirements	1.1	Identify work requirements from production plan or request
		1.2	Check product, materials and equipment meet requirements for job
		1.3	Recognise requirements which may not be in accordance

			with usual practice
		1.4	Ask questions of appropriate person to confirm unusual practice
		1.5	Identify hazards associated with the job and take appropriate action
		1.6	Perform other pre-operational checks in accordance with procedures
2	Start up granulator to procedures	2.1	Conduct pre-start checks
		2.2	Start up granulator
3	Operate equipment to procedures	3.1	Check process is operating within required limits
		3.2	Check materials are in specification and to required quality standard
		3.3	Ensure materials are consistently ready for next operation
		3.4	Maintain supply of materials as required
		3.5	Complete logs and records as required
		3.6	Collect and segregate scrap, trim and other materials as required
		3.7	Keep equipment and work area clean
		3.8	Pause machine cycle and perform emergency stop, as required
4	Respond to routine problems in accordance with procedures	4.1	Recognise known faults that occur during the operation
		4.2	Identify and take action on causes of routine faults
		4.3	Log problems as required
		4.4	Identify non-routine process and quality problems and take appropriate action

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes

- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment

Tools and equipment include:

- granulator equipment
- ancillary equipment that is integral to the process, such as regrind evacuation systems, conveyors, hoppers and de-humidifiers.

Additional tools and equipment will be selected as required from:

- magnets
- screens
- dust collection systems tools (such as verniers and gauges)
- hoists/lifting equipment not requiring any special permits or licences
- manual handling aids, such as hand carts and trolleys
- relevant personal protective equipment (PPE).

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- weight, shape, volume of materials to be handled
- hazardous products and materials
- knives, blades and cutting tools
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- rotational equipment or vibration
- high temperatures
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- equipment malfunction
- variations in cycle time, temperature, pressure and speed
- variations in materials or contamination of materials
- poor maintenance of blades, screens
- inconsistency in granulation
- incorrect product size
- incorrect weight
- poor mixing of additive and raw material
- surface moisture.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMBPROD259C Operate granulating equipment

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

Assessment Requirements for PMBPROD259 Operate granulating equipment

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- read and interpret procedures, job specifications, basic machine control panels, material labels and safety data sheets (SDS)
- select and use materials, procedures, tools and equipment to meet job specifications
- monitor granulating and ancillary equipment using measured/indicated data and smell, sight, sound and feel as appropriate
- monitor and interpret key variables, including:
 - speeds
 - temperature
 - output rate
 - product integrity and general conformance to specification/sample
- operate and adjust the equipment to meet product quality and production output specifications
- pause the equipment or shut down equipment in normal and abnormal circumstances
- identify hazards and apply relevant hazard controls
- apply safety procedures
- apply housekeeping procedures
- apply waste management procedures
- recognise early warning signs of equipment/processes needing attention or with potential problems
- recognise routine and non-routine problems
- identify when the operator is able to rectify faults, when assistance is required and who is the appropriate source for assistance
- take action to resolve faults or report faults to appropriate personnel
- distinguish between possible causes of routine faults, including:
 - raw material variations/contamination
 - process abnormalities
 - procedural errors
 - mechanical abnormalities
- communicate effectively with team/work group and supervisors
- complete workplace records

- do basic arithmetical manipulations, including additions, subtractions, divisions, fractions and percentages.

Knowledge Evidence

Assessment Conditions

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