



Australian Government

PMBPROD343E Shut down plant area

Release: 1

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Modification History

Release 1. Unit code changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBPROD343 Shut down plant area.

Application

This unit describes the skills and knowledge required to shut down a plant area or production line, typically performed at the end of a production run or when maintenance is required.

This unit applies to an experienced technician working alone or as part of a team.

The unit principally refers to polymer processing operations that involve multiple machinery units and automated controls and can require a formalised shutdown with application of specialised processing knowledge.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil.

Competency Field

Production – Extrusion, Injection Moulding, Rotational Moulding

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Process request for plant or production line shutdown	1.1 Identify type of and reason for shutdown request 1.2 Assess impact of shutdown on production capabilities and adjust production plans to reflect those impacts 1.3 Communicate plan for shutdown with relevant personnel 1.4 Plan shutdown process according to type of shutdown and workplace shutdown procedures
2. Confirm shutdown of equipment or work area	2.1 Identify specific plant and equipment affected by shutdown and ensure no further raw materials are provided 2.2 Ensure equipment and site are cleaned up with all waste removed

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	for recycling or disposal 2.3 Tag or isolate equipment, and advise relevant personnel that equipment or area is offline 2.4 Supervise personnel in equipment shutdown procedures
3. Prepare equipment for idle period	3.1 Ensure suitable guards, locks, tags or notices are placed on equipment in clear view to prevent inadvertent startup 3.2 Ensure any adjustments, control alterations, lubrication or application of corrosion inhibitors are undertaken by appropriate personnel 3.3 Arrange for appropriate coverage of equipment and security of area based on duration of idleness
4. Complete workplace documentation	4.1 Complete relevant documentation, detailing nature of shutdown activity, dates and equipment that has been taken out of service 4.2 Advise management of shutdown procedure outcomes 4.3 Complete required regulatory documentation and obtain any required external certification
5. Anticipate and solve process control variances	5.1 Recognise existing or potential process control variances and their causes 5.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 5.3 Monitor process control variances and corrective actions taken until resolved 5.4 Accurately complete records and logbooks

Foundation Skills

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

- Numeracy skills to interpret technical information and equipment readings.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to communicate shutdown processes with personnel, and report and record outcomes to supervisors.

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

Unit Mapping Information

Supersedes and is equivalent to PMBPROD343 Shut down plant area.

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 PMBPROD343E Shut down plant area

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- shut down a plant area at least once, either for maintenance or at the end of a production run.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the structure, functions and principles of operation of equipment, machine components and ancillary equipment
- the nature of mechanical, hydraulic, pneumatic, electrical and electronic principles that affect machine operation
- the impact of variations in production cycle, process and sequences on shutdown of equipment systems
- functions and applications of analogue controls, digital controls, and microprocessor-based process controls
- functions of and readings from polymer processing machinery, including:
 - levelling
 - thermocouples
 - pyrometers
 - transducers
 - thermometers
 - pressure gauges
 - vacuum gauges
 - flow meters
- purpose and operation of safety interlocks and systems in the process, including:
 - limit switches
 - normally open/normally closed
 - overstroke control systems
 - hydraulic temperature control
 - material temperature control

- machine guards
- nozzle purge guard
- mould protection systems
- ejection limit switches
- organisational procedures relevant to the work environment or job role
- hazards that may arise in the job or work environment, and:
 - their possible causes
 - potential consequences
 - appropriate risk controls.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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