



Australian Government

PMBPROD308E Take a machine out of production

Release: 1

PMBPROD308E Take a machine out of production

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 PMBPROD308 Take a machine out of production.

Application

This unit covers the skills and knowledge required to perform a long-term shutdown of equipment where the machine needs to be or become 'cold', typically for maintenance, a holiday shutdown period or 'mothballing' (deactivation and preservation of equipment so it is in working order and may be restored to production quickly) of the machine and its ancillary units.

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

The unit principally refers to large or complex machinery; however, the procedures covered in this unit are universal.

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

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. Take over operation of machine	1.1 Arrange handover from operator according to workplace procedures 1.2 Identify type of and reason for shutdown to determine shutdown process to be followed 1.3 Check for and act on hazards that may impact shutdown procedures 1.4 Communicate plan for shutdown with relevant personnel

Elements Elements describe the essential outcomes.	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.
2. Perform long-term shutdown	2.1 Stop material feed according to equipment instructions 2.2 Purge machine, using appropriate methods and materials, according to equipment specifications and workplace shutdown procedures 2.3 Switch off ancillary equipment according to equipment instructions 2.4 Make other pre-shutdown adjustments to ensure safety of machine and materials 2.5 Isolate, lock out and make machine safe for personnel, and leave with appropriate tags or notices 2.6 Accurately complete workplace shutdown documentation
3. Perform post-shutdown preventive maintenance and clean-up after long-term shutdown	3.1 Clean all components according to equipment specifications and workplace procedures 3.2 Assess equipment to identify need for surface treatment and apply as required 3.3 Leave all parts in suitable condition according to machine specifications 3.4 Confirm all isolations have been performed against shutdown plan 3.5 Pack or process any remaining products and label according to workplace procedures 3.6 Apply waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled or reprocessed according to workplace procedures 3.7 Clean and clear work area, ready for machine restart and according to workplace procedures
4. Anticipate and solve process control variances	4.1 Recognise existing or potential process control variances and their causes 4.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 4.3 Monitor process control variances and corrective actions taken until resolved 4.4 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 record and report on equipment shutdown procedures.

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 PMBPROD308 Take a machine out of production.

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 PMBPROD308E Take a machine out of production

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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:

- take a machine out of production at least once to support a long-term shutdown period where the equipment will need to be restored to production at a later date.

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, including:
 - production plant and equipment
 - machine control systems
 - safety interlocks and systems
 - measuring instruments
- the functions and applications of analogue controls, digital controls, and microprocessor-based process controls
- types of and reasons for machine shutdown, and the procedures associated with each
- types of machine purging and the appropriate application of each
- the criteria for overall process/equipment readiness for the process or equipment being used
- function of and readings from measuring instruments, including:
 - levelling
 - thermocouples
 - pyrometers
 - transducers
 - thermometers
 - pressure gauges
 - vacuum gauges
 - flow meters
- purpose and operation of safety interlocks and systems, including:
 - limit switches

- machine guards
- methods and materials for purging equipment, and their combinations and applications
- key variables that may affect product quality and production output
- typical and atypical process and product problems, including early warning signs, possible causes and corrective actions:
 - cycle interruptions
 - degradation of materials
 - cooling and solidification of compounds
 - rusting and corrosion of moulds put in storage
- organisational procedures relevant to the work environment or job role, including procedures for the emergency shutdown of equipment
- 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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