



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD343C Shut down plant area

Revision Number: 1

PMBPROD343C Shut down plant area

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the shutting down of equipment for maintenance or end of production run for a defined area. It extends beyond just the shutting down of an item of equipment. It applies to all sectors of the industry.

Application of the Unit

Application of this unit

This competency is typically performed by advanced operators who shut down equipment for a work area for maintenance, end of a production run or permanent closure of a production line. It requires using a range of well developed skills requiring some discretion and judgement to recognise and resolve a range of problems.

The operator will:

- confirm the shutdown instruction advising personnel of the decision
- ensure that production capacity is not compromised elsewhere by the closure
- tag or isolate the equipment
- ensure the equipment and area is clean and free of hazards
- cover equipment to resist dust encroachment and corrosion
- complete appropriate workplace documentation
- identify and minimise any hazards connected with materials and process from materials safety data sheets, labels and workplace procedures
- complete logs and reports.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

The required outcomes described in this unit contain applicable Employability Skills. The Employability Skills Summary of the qualification(s) in which this unit is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
1. Respond to requests for equipment shutdown.	1.1 Identify the nature of the shutdown required and the circumstances leading to the decision. 1.2 Establish the impact of the shutdown on production capabilities and where necessary reassign work. 1.3 Advise appropriate personnel of shutdown. 1.4 Plan the level of shutdown activity required.
2. Close down equipment or work area to procedures.	2.1 Identify specific plant and equipment affected by the shutdown and ensure that no further raw materials are provided. 2.2 Ensure equipment and site is cleaned up with all waste removed for recycling or disposal. 2.3 Tag or isolate equipment, and appropriate personnel are advised that the equipment and/or area are off-line. 2.4 Supervise personnel in equipment shutdown procedures.
3. Prepare equipment for idle period to procedures.	3.1 Ensure that suitable guards, locks, tags or notices are placed on equipment in clear view to prevent inadvertent start-up. 3.2 Ensure that any adjustments, control alterations, lubrication or application of corrosion inhibitors are undertaken by appropriate personnel in accordance with workplace procedures. 3.3 Arrange for appropriate coverage of equipment and security of area in the case of prolonged idleness.
4. Complete workplace documentation.	4.1 Complete relevant documentation, detailing the nature of the shutdown activity, dates and the equipment which has been taken out of service. 4.2 Advise management of shutdown procedure outcomes. 4.3 Complete required regulatory documentation and obtain any external certification that may be necessary.
5. Anticipate and solve problems.	5.1 Recognise a problem or a potential problem. 5.2 Determine problems needing priority action.

ELEMENT	PERFORMANCE CRITERIA
ELEMENT	Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
	5.3 Refer problems outside area of responsibility to appropriate person, with possible causes. 5.4 Seek information and assistance as required to solve problems. 5.5 Solve problems within area of responsibility. 5.5 Follow through items initiated until final resolution has occurred.

Required Skills and Knowledge

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

Application of knowledge of the materials, equipment and process sufficient to recognise material and equipment conditions which may lead to out-of-specification production.

Knowledge of organization procedures, quality requirements at each production stage and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards.

Application of the knowledge of managing risks using the hierarchy of controls applied to the composites process. Application of approved hazard control and safety procedures and the use of PPE in relation to handling materials, equipment operation and cleanup.

Knowledge as a basis for solving problems including:

- equipment has been isolated following appropriate workplace procedures and techniques
- ensuring appropriate lines of communication have been followed
- ensuring appropriate shutdown procedures have been followed
- correct storage/disposal of raw materials
- hazards of the materials and process and appropriate hazard control procedures
- nature of mechanical, hydraulic, pneumatic, electrical and electronic principles which affect machine operation
- the hierarchy of control, including engineering controls
- waste management and importance of non-conforming materials

Competence also includes the ability to:

- plan own work, including predicting consequences and identifying improvements
- identify and describe own role and role of others involved directly in the production process
- identify factors which may affect production output in other areas and appropriate remedies
- identify when assistance is required to solve problems.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets and complex machine control panels such as those displaying SPC information.

Writing is required to the level of completing workplace forms, quality assurance and production reports.

Basic numeracy is required, eg to determine how many 2 kg, 3 kg and 5 kg bags are needed to make up a requirement for 50 kg.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

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

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- identify critical equipment characteristics, hazards and procedures to minimise risk
- make adjustments to the process as required.
- identify and take appropriate action on problems and potential problems.

Consistent performance should be demonstrated. For example, look to see that:

- production requirements are understood and incorporated in plans
- the shutdown procedure runs consistently and smoothly, with the minimum need for human intervention
- all safety procedures are always followed.

Assessment method and context

Assessment will occur on appropriate industrial machinery and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- on a processing plant, allowing for operation under all normal and a range of abnormal conditions
- in a situation allowing for the generation of evidence of the ability to recognise, anticipate and respond to problems
 - by using a suitable simulation and/or a range of case studies/scenarios
 - through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

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. 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. Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to the shutdown and removal from service of equipment or lines. This competency applies to all work environments and sectors within the plastics, rubber and cabling industry. It includes the removal from operation of all relevant ancillary equipment.

Procedures

All operations are performed in accordance with procedures. Procedures include all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This unit of competency includes use of equipment and tools such as:

- hoists/lifting equipment not requiring any special permits or licences
- spanners and similar hand tools
- relevant personal protective equipment.

Hazards

Typical hazards include:

- equipment hazards
- hazardous materials
- manual handling hazards.

Problems

'Anticipate and solve problems' means resolve a wide range of routine and non-routine problems, using product and process knowledge to develop solutions to problems which do not have a known solution recorded in the procedures.

Typical process and product problems may include:

- inappropriate isolation practices
- site contamination.

Appropriate action for problems outside area of responsibility may be reporting to an appropriate person.

Appropriate action for solving problems within area of responsibility includes asking questions and seeking assistance from appropriate persons/sources.

Unit Sector(s)

Not applicable.