



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD235C Use materials and process knowledge to complete work operations

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the application of materials and process knowledge to the operation of the equipment, processes, materials and end product, so that work procedures and quality requirements can be met. It applies to workers in any sector of the industry.

This competency is typically performed by all operators working either independently or as part of a work team.

This unit of competency may be designated for a stream - see the Range Statement.

Application of the Unit

Application of this unit

This competency applies to operators who maintain an overview of the production process, collect and prepare materials for the production process and observe and make judgements about the end product. The key factors are the delivery of the right material to the right place at the right time and ensuring there is no contamination of the materials.

It includes:

- checking job sheets for work to be done and identifying the priority in which jobs/ product will be made/completed
- discussing work progress with other workers planning which jobs have the higher priority
- utilising raw materials to produce products through a production process
- inspecting the products of the process and identifying routine production faults
- employing appropriate shutdown procedures.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

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. Locate materials, equipment and workplace documentation for production process.	1.1 Follow workplace documentation requirements relating to production processes. 1.2 Identify and locate the range of materials used and their physical forms. 1.3 Acquire necessary equipment and tools and identify appropriate work checking procedures. 1.4 Identify and follow safety requirements for the materials and process to be employed.
2. Follow production process.	2.1 Follow procedures for the production process. 2.2 Identify those parts of the production process where extra care and attention is required. 2.3 Identify and apply the operating principles behind the equipment to be used.
3. Identify product features.	3.1 Inspect products for compliance with quality specifications. 3.2 Identify products in terms of end purpose and relationship to workplace production output and economic value. 3.3 Relate features of products to the production process.
4. Locate required equipment, materials and product storage.	4.1 Follow the correct workplace procedures and safety precautions for the storage of equipment, materials and products. 4.2 Identify and separate incompatible materials in accordance with workplace procedures and practices. 4.3 Ensure equipment is cleaned prior to return to storage. 4.4 Dispose of waste materials through approved means or product recycling.
5. Identify routine production and product faults.	5.1 Identify the causes of production faults and take appropriate restorative or reporting action. 5.2 Establish the basis for product faults and report or address (as appropriate) potential causes due to inappropriate production methods and materials quality.
6. Follow shutdown procedures	6.1 Differentiate between routine and emergency shutdown situations and procedures. 6.2 Demonstrate the procedures to be followed in an emergency shutdown of the process and the alert

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	procedures that accompany that process. 6.3 Follow the appropriate procedures for routine shutdowns for breaks and other routine short term discontinuances. 6.4 Notify appropriate personnel of shutdowns and complete any workplace documentation.

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 out-of-specification products, process problems and materials faults.

Knowledge of organisation procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards.

Competence includes the ability for the practical completion of the job to apply and/or explain:

- impact of incorrect or faulty materials
- types of products made with different processes
- the changes to raw materials during the process
- production workflow sequences and materials demand
- focus of operation of work systems and equipment
- correct selection and use of equipment, materials, processes and procedures
- hazards of the materials and process and appropriate hazard control procedures.

Competence also includes the ability to:

- recognise the importance of material properties and qualities
- recognise the importance of process conditions
- apply approved procedures
- take appropriate action to resolve faults or report faults to appropriate personnel
- explain and implement emergency shutdown procedures.

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

- production standards are met consistently
- upstream and downstream communication is timely
- effective operating procedures and work instructions are read and interpreted correctly
- problems are identified and appropriate action is taken (ie the problem is fixed or reported)
- all safety procedures are followed.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets and material labels as provided to operators

Writing is required to the level of completing workplace forms.

Basic numeracy is also required, eg to determine that two 25 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:

- recognise the importance of material properties and qualities
- recognise the importance of process conditions
- apply approved procedures
- take appropriate action to resolve faults or report faults to appropriate personnel.
- explain and implement emergency shutdown procedures.

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Assessment method and context

Assessment will occur on industrial materials and processes and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- by use of an appropriate, industrial materials and processes
- in a situation allowing for the generation of evidence of the ability to 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 all work environments and sectors within the plastics, rubber and cabling industry.

This competency unit includes the use of manual handling aids such as handcarts. It does not include the use of powered equipment/aids.

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 competency includes use of equipment and tools such as:

- basic hand tools required for opening of material packaging
- hand carts and trolleys
- hoists/lifting equipment not requiring any special permits or licences rules or callipers
- relevant personal protective equipment inventory and workplace records systems.

Hazards

Typical hazards include:

- material spills
- fumes, dusts/vapours
- hazardous materials
- manual handling hazards
- machinery hazards.

Problems

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'. Typical process and product problems may include:

- variations in materials
- contamination of materials
- variations in equipment operations
- product faults
- equipment breakdowns.
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Unit Sector(s)

Not applicable.