



Australian Government

PMBPROD235 Use materials and process knowledge to complete work operations

Release: 1

PMBPROD235 Use materials and process knowledge to complete work operations

Modification History

Release 1. Supersedes and is equivalent to PMBPROD235C Use materials and process knowledge to complete work operations

Application

This unit of competency covers the skills and knowledge required to apply 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 unit of 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. They also recognise routine and non-routine production 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 **Determine production**

1.1 Follow workplace documentation requirements relating to production processes

	requirements	1.2	Check job sheets for work to be done
		1.3	Identify the priority in which jobs will be done
		1.4	Identify and locate the materials to be used and their physical forms
		1.5	Acquire necessary equipment and tools and identify appropriate work checking procedures
		1.6	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 the critical parts of the production process
		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	Store equipment, materials and product	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	Correct routine	5.1	Identify production faults

	production and product faults	5.2	Identify the causes of production faults
		5.3	Identify product faults
		5.4	Identify the causes of product faults
		5.5	Take appropriate remedial action to correct the fault
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
		6.3	Demonstrate the alert procedures required in an emergency shutdown of the process
		6.4	Follow the appropriate procedures for routine shutdowns
		6.5	Notify appropriate personnel of shutdowns
		6.6	Complete required workplace documentation

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.

Appropriate remedial action Appropriate remedial action includes one or more of:

- adjust machine to achieve requirements
- report fault to supervisor/senior operator
- fill out workplace documentation
- follow workplace procedures

Tools and equipment Tools and equipment include one or more of:

- hand tools required for opening of material packaging
- manual handling aids, such as hand carts and trolleys
- hoists/lifting equipment not requiring any special permits or licences
- rules
- callipers
- relevant personal protective equipment (PPE)
- inventory and workplace records systems.

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

- material spills or leaks
- hazardous products and materials
- manual handling hazards
- heavy stationary and moving machinery
- machinery hazards
- protrusions or obstructions
- slippery surfaces
- rotational equipment or vibration
- smoke, dust, fumes, vapours or other atmospheric hazards
- extreme temperatures
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Problems Problems include one or more of:

- variations in materials
- contamination of materials
- variations in equipment operations
- product faults
- equipment breakdown, malfunction or wear and tear
- variable site conditions
- limitations in available data on specific job requirements
- variations in quality
- emergency situations
- intermittent faults.

Unit Mapping Information

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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 PMBPROD235 Use materials and process knowledge to complete work operations

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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, material labels and safety data sheets (SDS)
- determine production requirements
- discuss work progress with other workers
- plan which jobs have the higher priority
- use specified materials to produce products through a production process
- inspect product conformance to requirements
- meet production standards consistently
- identify and rectify routine production faults
- distinguish between causes of problems, including:
 - operational problems
 - materials properties
 - process variables
 - procedural errors
- store equipment, materials and product appropriately
- follow appropriate shutdown procedures
- adhere to safety requirements.

Knowledge 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 knowledge of:

- the impact of incorrect or faulty materials
- types of products made with different processes
- changes to raw materials during the process
- production work flow sequences and materials demands
- selection practices for equipment, materials, processes and procedures
- uses of equipment, materials, processes and procedures
- materials and process hazards
- appropriate hazard control procedures

- the importance of material properties and qualities
- the importance of process conditions
- approved procedures
- appropriate action to resolve faults or report faults
- emergency shutdown procedures
- safety requirements.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- The collection of performance evidence:
 - should occur over a range of situations
 - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
 - must include the use of appropriate industrial equipment requiring demonstration of operation, start and stop procedures and responding to problems
 - may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.

- Technical competence can be demonstrated through one or more of:
 - relevant VET or other qualification/Statement of Attainment
 - appropriate workplace experience
 - appropriate workplace experience supervising/evaluating the type of work being assessed
- Currency can be demonstrated through one or more of:
 - being currently employed undertaking the type of work being assessed
 - being employed by the organisation undertaking the type of work being assessed and having maintained currency
 - having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
 - conducting on the job training/assessments of the type of work being assessed.

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