



Australian Government

MSMPMC302 Operate equipment to blend/mix materials

Release: 1

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Modification History

Release 1. New Unit. Supersedes and is equivalent to PMC552002 Operate equipment to blend/mix materials.

Application

This unit describes the skills and knowledge required to select and blend or mix materials using blending or mixing and ancillary equipment.

This unit applies to operators who are required to take responsibility for own outputs and follow established procedures to select the correct type and quantity of materials; set up and operate equipment; and conduct routine maintenance. Operators are also required to work autonomously and apply their own judgement to interpret information; monitor processes; identify and address routine and non-routine problems and control hazards.

This unit 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 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

Operations

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine blend or mix requirements	1.1 Check work schedule and/or job specification and/or job card 1.2 Identify customer requirements and set parameters in accordance with standard procedures 1.3 Select correct type and quantity of materials 1.4 Identify and action all special requirements and specifications 1.5 Identify and rectify any material handling problems in accordance with standard procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.6 Update material records
2. Blend or mix materials	2.1 Set up, start and operate blending or mixing equipment and ancillary equipment as required by specifications 2.2 Prepare and add materials to blender or mixer as required by specification 2.3 Blend or mix materials and check that materials prepared match requirements
3. Monitor and record operation	3.1 Monitor equipment performance in accordance with work instructions and manufacturer specification 3.2 Monitor non-conforming product against customer specifications 3.3 Adjust and control equipment to ensure correct product quality 3.4 Complete final inspection checks 3.5 Complete appropriate records and logs
4. Maintain blending or mixing plant and area	4.1 Keep area and equipment clean and in good order 4.2 Unload and shut down equipment 4.3 Maintain records
5. Rectify routine and non-routine problems and faults	5.1 Identify and rectify faults and equipment failure 5.2 Maintain records and log books of equipment operations 5.3 Identify non-routine problems and report to designated person
6. Control hazards	6.1 Identify hazards in blending or mixing work area 6.2 Assess the risks arising from those hazards 6.3 Implement measures to control those risks

Foundation Skills

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

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

Unit Mapping Information

Release 1. New Unit. Supersedes and is equivalent to PMC552002 Operate equipment to blend/mix materials.

Links

Companion Volume Implementation Guides are available at VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

Assessment Requirements for MSMPMC302 Operate equipment to blend/mix materials

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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:

- set up and operated the equipment according to procedures to blend or mix materials on at least 1 occasion, including:
 - monitoring the following key variables to ensure product integrity and conformance to specification:
 - process conditions and parameters
 - duration of blend and mix
 - mixing sequence
 - blend and mix tolerance
 - recognising possible causes of the following routine problems:
 - raw material variations
 - process problems
 - mechanical abnormalities
 - electrical or instrument reading variations
 - equipment faults, damage or failure.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- principles of blending or mixing products
- blending and mixing equipment, including:
 - start-up, operation and shutdown processes
 - impact of equipment operation and limitations on mixing efficiency, effectiveness and quality of product
- vibration monitoring
- impact of:
 - blending or mixing on final product
 - variations in product specification on the blending or mixing process
 - variations in raw materials in relation to quality of product
- process used to transform the feed materials into the product

- product specifications and tolerances
- routine problems and factors which may affect product quality or production output, their probable causes and relevant corrective actions
- enterprise production schedules
- blending and mixing hazards and:
 - their possible causes
 - potential consequences
 - risk control procedures
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - blending or mixing equipment and ancillary equipment
 - materials to be blended or mixed
 - specifications, procedures and job sheets
- modelling of industry operating conditions, including:
 - routine and non-routine problems.

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

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