



Australian Government

MSMPMC402 Process raw meal into product

Release: 1

MSMPMC402 Process raw meal into product

Modification History

Release 1. New unit. Supersedes and is equivalent to PMC553010 Process raw meal into product

Application

This unit describes the skills and knowledge required to process raw meal through a kiln to produce cement and/or lime product.

This unit applies to experienced operators, leading hands, supervisors or those in similar roles who are required to perform pre-start, start-up and shutdown procedures; monitor and adjust the process to maximise throughput and maintain quality; distribute product to storage and solve problems within area of responsibility.

This unit applies to an experienced operator demonstrating broad theoretical and technical knowledge and well-developed skills in situations that require some discretion and judgement. The experienced operator may work alone or as part of a team or group and in liaison with other shift team members, team leader and supervisor.

This competency does not require the operation of a central control panel.

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

MSMPMC307 Operate a calcining kiln

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. Prepare for processing	1.1 Notify and keep informed all relevant people about the status of operations and any intention to make changes 1.2 Perform all pre-start and settings checks in accordance with standard operating procedures (SOPs) 1.3 Set up and configure equipment start-up function complying with

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	procedures 1.4 Load raw materials 1.5 Start up plant or equipment
2. Process raw material	2.1 Commence and continue process operations in accordance with specified operating procedures 2.2 Monitor and check instrument and control panels against target parameters for variations, fluctuations or trends 2.3 Maximise throughput of system while meeting quality target parameters 2.4 Check and adjust ancillary equipment
3. Distribute product to storage	3.1 Monitor and perform necessary adjustments to discharge rate and temperature as required 3.2 Monitor the distribution transport system for efficiency and spillages and take appropriate action 3.3 Monitor the distribution of product to the correct storage area and level of product in that area, and redirect as required
4. Shut down equipment	4.1 Ensure line is clear of all product and shutdown equipment 4.2 Complete appropriate records and logs
5. Prepare equipment for maintenance	5.1 Isolate equipment 5.2 Remove any broken materials safely 5.3 Ensure area is clear and safe for maintenance
6. Respond to problems	6.1 Identify routine and non-routine problems in the equipment or process 6.2 Rectify problem using appropriate solution within area of responsibility 6.3 Report problems outside area of responsibility to designated person
7. Control hazards	7.1 Identify hazards in kiln work area 7.2 Assess the risks arising from those hazards 7.3 Implement measures to control those risks 7.4 Shut down equipment in an emergency

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 PMC553010 Process raw meal into product

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 MSMPMC402 Process raw meal into product

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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:

- processed raw meal into at least 1 product, including:
 - monitoring the following key variables to ensure product integrity and conformance to specification:
 - operating temperatures
 - material feed rate
 - discharge rate
 - material properties and chemical reactions
 - recognising possible causes of the following problems:
 - electrical, mechanical or instrument failure and malfunction
 - raw material variations and contamination
 - kiln quality and optimisation practices
 - types of kiln fuels and reactions
 - process abnormalities
 - procedural errors.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- equipment, including:
 - functions, limitations
 - start-up, operation and shutdown processes
 - impact of equipment settings on product quality and production output
- impact of variations in process conditions and raw materials on product quality and production output
- characteristics of materials being processed and their behaviour in relation to process conditions and stages of production
- quality requirements at each stage of production
- common adjustments in process variables and their impact on product quality and production output

- routine and non-routine problems that may arise, the range of possible causes and appropriate actions
- work health and safety (WHS) requirements relevant to work outcome
- processing 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:
 - kiln, ancillary and supporting equipment
 - materials to be processed
 - 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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