



Australian Government

PMAOPS217 Operate wet milling equipment

Release: 1

PMAOPS217 Operate wet milling equipment

Modification History

Release 1. Supersedes and is equivalent to PMAOPS217B Operate wet milling equipment

Application

This unit of competency covers the skills and knowledge required to operate wet milling equipment and its ancillary equipment.

Wet milling equipment is used in plants that manufacture paint and other materials. The wet milling equipment may be vertical or horizontal mills and may incorporate rolls, balls or beads as the milling medium.

This unit of competency applies to operators who are required to start up and shut down the equipment, process monitoring and planning for maintenance, contribute to optimisation, and identify operational problems and take appropriate action.

This unit of competency applies to an individual who may work alone although under routine direction and supervision. They may work as part of a team or group and will work in liaison with other shift team members and the control room operator, as appropriate.

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

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Operations

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 1 | Prepare for work | 1.1 | Receive and give shift handover |
| | | 1.2 | Identify work requirements |
| | | 1.3 | Identify and control hazards |

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| | | 1.4 | Coordinate with appropriate personnel |
| | | 1.5 | Check for recent work undertaken on plant item |
| | | 1.6 | Note any outstanding/incomplete work |
| | | 1.7 | Check operational status of equipment |
| 2 | Operate mill in accordance with procedures | 2.1 | Identify the type of wet mill and duty |
| | | 2.2 | Complete routine checks, logs and paperwork taking appropriate action on unexpected readings |
| | | 2.3 | Adjust mill, as appropriate to type and duty |
| | | 2.4 | Change rate, grade or specification smoothly |
| 3 | Recognise and take action on abnormal situations in accordance with procedures | 3.1 | Monitor mill operating condition frequently and critically throughout shift using measured/indicated data and senses |
| | | 3.2 | Identify impacts of any changes upstream and downstream |
| | | 3.3 | Recognise situations which may require action |
| | | 3.4 | Resolve routine problems |
| | | 3.5 | Take actions on other abnormal situations to make safe and have the situation resolved |
| 4 | Isolate and de-isolate equipment | 4.1 | Complete any required pre-start checks |
| | | 4.2 | Confirm raw materials are available and correct |
| | | 4.3 | Prepare pre-mixer and introduce raw materials to pre-mixer if required |
| | | 4.4 | Start up/shut down wet mill according to plant type and duty in liaison with other personnel |
| | | 4.5 | Isolate wet mill |
| | | 4.6 | Make safe for required work |

- 4.7 Check wet mill is ready to be returned to service
- 4.8 De-isolate and prepare wet mill for return to service

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.

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, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations to which this unit applies are subject to stringent health, safety and environment (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 HSE requirements, the HSE 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 more of the following:

- 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

Hazards

Hazards include one or more of the following:

- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- plant services (steam, condensate and cooling water)
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of the following:

- condition and life of beads
- condition of rollers/balls
- cooling system fouling
- blocked filters or piping
- high/low levels
- loss of process cooling resulting in high process temperatures
- equipment failure or shutdown resulting in loss of feed to process
- excess/unexpected sand production
- composition changes

Known solutions are drawn from one or more of the following:

- procedures
- training
- remembered experience

Non-routine problems must be reported according to according to relevant procedures.

Start up/shut down as required

Start up/shut down as required includes the following:

- start up and shut down to/from normal operating conditions
- start up and shut down to/from isolated, cold or empty
- start up and shut down to/from other conditions/situations experienced on the plant

Action

Action in accordance with procedures includes the following:

- determining problems needing action
- determining possible fault causes
- rectifying problem using appropriate solution within area of responsibility
- following through items initiated until final resolution has occurred
- reporting problems outside area of responsibility to designated person

Operate

Operate is to monitor, adjust/change the plant item/unit/system to meet specifications, by one or more of the following:

- manually in the plant
- using local controller in the plant
- using the process control system in the control room

Wet milling equipment

Wet milling equipment will be selected as required from the following:

- vertical
- horizontal
- bead mills
- roll/ball-type mills

Ancillary

Ancillary equipment includes one or more of the following:

- equipment**
- pre-mix vessels
 - coolers, cooling jackets and heat exchangers
 - pumps
 - vessels, tanks
 - piping systems
 - valves and flanges
 - sumps and drains

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>