



Australian Government

PMAOPS261 Operate bulk solids loading equipment

Release: 1

PMAOPS261 Operate bulk solids loading equipment

Modification History

Release 1. Supersedes and is equivalent to PMAOPS261A Operate bulk solids loading equipment

Application

This unit of competency covers the skills and knowledge required to operate equipment used to convey and load bulk solids in sealed containments.

This unit of competency applies to an operator who is required to undertake pre-start checks, operate filling, loading and supplementary equipment to meet specifications, and undertake minor maintenance.

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 and the control room operator, as appropriate.

This unit of competency has been written with minerals processing plants as the specific focus. However, it can also be applied with appropriate contextualisation to any plant in which raw product is produced for transporting for further processing, such as in the manufacture of plastics or other particulates.

This unit of competency does not apply to line conveyors as part of a ship loading system.

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
 - 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 bulk solids loading equipment
- 2 **Manage bulk material storage and operate load-out equipment**
 - 2.1 Visually inspect storage facility and load-out equipment
 - 2.2 Determine levels of solids in storage using appropriate indicators
 - 2.3 Ensure storage discharge areas are free from obstructions
 - 2.4 Identify the types of load-out equipment and duty
 - 2.5 Operate load-out equipment in accordance with procedures
 - 2.6 Complete routine checks, logs and paperwork taking appropriate action on unexpected readings
 - 2.7 Ensure containment is properly sealed according to procedures after load-out
 - 2.8 Move containment to transhipment area
- 3 **Recognise problems and take appropriate action**
 - 3.1 Monitor plant 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

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|---|---|-----|---|
| 4 | Isolate and de-isolate bulk solids loading equipment | 4.1 | Complete any required prestart checks |
| | | 4.2 | Start up/shut down bulk solids loading equipment, and its components according to the equipment type and duty in liaison with other personnel |
| | | 4.3 | Isolate bulk solids loading equipment, and its components |
| | | 4.4 | Make safe for required work |
| | | 4.5 | Check bulk solids loading equipment, and its components is ready to be returned to service |
| | | 4.6 | De-isolate and prepare equipment 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, 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
- 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)
- 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:

- rat holing and bridging in silos/bins/hoppers
- routing issues
- equipment problems
- solids falling from equipment

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.

Actions on other abnormal situations

Actions on other abnormal situations include the following:

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

Logs and reports

Logs and reports include one or more of the following:

- paper or electronic-based logs and reports
- verbal/radio reports
- reporting items found which require action

Load-out equipment

Load-out equipment includes one or more of the following:

- hoppers, bins or silos
- conveyors
- chutes
- dust extraction equipment and bag houses
- automated bagging or filling equipment
- vibratory settling equipment
- roller conveyors
- motorised lifting equipment

- weighing equipment
- moisture/composition testing equipment

**Solids
containments**

Solids containments include one or more of the following:

- bulk bags
- drums
- road tankers
- hopper cars
- containers
- sealed bins

**Work
requirements**

Work requirements come from briefings, handovers and work orders, and include one or more of the following:

- compliance documentation
- product specifications
- nature and scope of tasks
- achievement targets
- operational conditions
- site layout and out of bounds areas
- worksite inspection requirements
- lighting conditions
- plant or equipment defects
- hazards and potential hazards
- coordination requirements or issues

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMAOPS261A Operate bulk solids loading equipment

Links

Companion Volume implementation guides are found in VETNet -

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