



**Australian Government**

# **PMAOPS343 Transfer bulk fluids into/out of storage facility**

**Release: 1**

# PMAOPS343 Transfer bulk fluids into/out of storage facility

## Modification History

Release 1. Unit code and Application changed. Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMAOPS307 Transfer bulk fluids into/out of storage facility.

## Application

This unit describes the skills and knowledge required to transfer bulk fluids into/out of a storage facility. The storage facility may be a land-based tank farm or a tanker at sea.

The storage facility or vessel will be monitored through the use of gas and fire detection (or other safety) equipment. Automatic sprinkler systems, deluges or other emergency response equipment will be activated in the event of fire/emergency detection and emergency shutdown systems will operate.

The equipment to be used in the transfer of product will be checked and tested before use. In some cases, before transferring, the circulation of product through pipelines will commence. This is usually for the purpose of pipeline chardown and is required to minimise vapor pressure build-up in warm pipework.

A comprehensive fire water supply main may encompass the facility and/or be located on the vessel, and a suitable fire pump would be able to provide fire water requirements in emergencies.

This unit applies to autonomous operators who are required to demonstrate a significant understanding of the process and the equipment operation in a plant with local control, or in liaison with the control-room operator in a plant with a centralised control panel.

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 and the control-room operator, as appropriate. It 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

Nil

## Competency Field

Operations

## Elements and Performance Criteria

Elements	Performance Criteria
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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Operate storage and/or transfer facility according to procedures	<p>1.1 Receive and give shift handover</p> <p>1.2 Communicate with personnel to identify and coordinate work requirements</p> <p>1.3 Identify, control and report hazards</p> <p>1.4 Check for recent work undertaken on storage and transfer facilities and address outstanding and incomplete work</p> <p>1.5 Check operational status and test safety systems to verify their operational condition and status, and report on all equipment faults</p> <p>1.6 Manage products within the tank farm or at the platform in accordance with the site storage types, products and locations</p> <p>1.7 Inspect storage and/or docking facilities for leaks or damage and ensure areas are safe, clean and equipment cannot be compromised by debris</p> <p>1.8 Identify and report equipment requiring maintenance</p>
2. Monitor storage facility	<p>2.1 Confirm tank mixes, capacities and quality, and determine if these are being maintained within the agreed product requirements prior to transfer</p> <p>2.2 Monitor gas detection, environmental and safety systems to ensure the storage area is a safe environment and that the safety of the area or vessel is not compromised</p> <p>2.3 Communicate storage conditions to personnel to inform them of the operational condition and status of the storage facilities or vessel</p>
3. Monitor load-out/transfer platform or facility according to procedures	<p>3.1 Monitor load-out and/or transfer systems on the platform or in the terminal load-out/transfer area</p> <p>3.2 Monitor gas detection, environmental and safety systems to ensure the load-out/transfer area is a safe environment</p> <p>3.3 Inform personnel of the load-out/transfer area status, and conditions of the storage facilities</p>
4. Conduct load-out/transfer according to procedures	<p>4.1 Communicate operational status to required personnel prior to loading</p> <p>4.2 Ensure that all startup permissives have been satisfied and product is ready for transfer</p> <p>4.3 Set and adjust pump flow rates to keep within agreed capacities</p> <p>4.4 Monitor loading pump performance to keep within stated operational ranges and vibration limits</p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	4.5 Take and record product samples
5. Identify and respond to abnormal situations during operation	<p>5.1 Monitor facility frequently and critically throughout shift using own senses, and measured and indicated data</p> <p>5.2 Monitor field data and instrumentation to ensure that product remains on specification</p> <p>5.3 Identify impacts of changes upstream and downstream</p> <p>5.4 Identify actual and developing situations that may require action</p> <p>5.5 Take action to remedy abnormal situations according to operating procedures</p> <p>5.6 Complete required documents outlining abnormal situation management and corrective action taken</p>
6. Shut down and prepare facility for maintenance	<p>6.1 Prepare facility to be shut down according to operating procedures</p> <p>6.2 Complete pre-shutdown checks according to operating procedures</p> <p>6.3 Shut down facility according to operating procedures</p> <p>6.4 Identify, control and report shutdown hazards</p> <p>6.5 Monitor shutdown and identify abnormal situations that may require action</p> <p>6.6 Take action to remedy abnormal situations according to operating procedures</p> <p>6.7 Shut down and changeover duty and standby equipment according to operating procedures</p> <p>6.8 Isolate facility from energy sources</p>
7. Prepare and start up facility	<p>7.1 De-isolate and prepare facility to be returned to standby or service</p> <p>7.2 Complete pre-start checks according to operating procedures</p> <p>7.3 Start up facility according to operating procedures</p> <p>7.4 Identify, control and report startup hazards</p> <p>7.5 Monitor startup and identify abnormal situations that may require action</p> <p>7.6 Take action to remedy abnormal situations according to operating procedures</p>

## Foundation Skills

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

- Learning skills to follow instructions, monitor process and select appropriate procedure.
- Reading skills to follow written procedures and documentation.
- Writing skills to complete workplace documentation.
- Oral communication skills to liaise and coordinate with team members and the control-room operator.
- Numeracy skills to monitor field data, instrumentation and process parameters.

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

## Unit Mapping Information

Release 1. Supersedes and is equivalent to PMAOPS307 Transfer bulk fluids into/out of storage facility.

## Links

Companion Volume implementation guides are found in VETNet -

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