



Australian Government

PMAOPS317 Undertake ship transfer operations

Release: 1

PMAOPS317 Undertake ship transfer operations

Modification History

Release 1. Unit code and title changed. Application and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMAOPS312 Undertake ship loading/unloading operations.

Application

This unit describes the skills and knowledge required to undertake ship loading and/or unloading operations for products such as liquefied natural gas (LNG), liquefied petroleum gas (LPG), oil, chemicals and particulates. It applies to loading areas including:

- terminal facilities
- jetties
- production platforms
- floating storage and offtake (FSO)/floating production storage and offtake (FPSO).

This unit applies to autonomous operators who are required to demonstrate a significant understanding of the process and the equipment operation in order to prepare for and control the cargo transfer rate within safe limits.

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.

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. Operate ship transfer system according to	1.1 Receive and give shift handover 1.2 Communicate with personnel to identify and coordinate work

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	requirements 1.3 Identify, control and report hazards 1.4 Check for recent work undertaken on ship loading and/or unloading equipment and address outstanding and incomplete work 1.5 Check operational status of transfer equipment 1.6 Check that the vessel is moored and secured in accordance with procedures and that the transfer points are aligned, ready for product transfer 1.7 Activate and bring all safety systems online 1.8 Check all arms, hoses and equipment connections are in place and operational conditions for transfer of product are satisfied 1.9 Complete safety-check documentation
2. Transfer product to and/or from ship according to procedures	2.1 Check transfer advice and documentation and complete required records 2.2 Engage fire and deluge protection systems 2.3 Launch and retrieve batching pigs 2.4 Commence the transfer process of the specified product
3. Identify and respond to abnormal situations during operation	3.1 Monitor transfer system frequently and critically throughout transfer using own senses, and measured and indicated data 3.2 Monitor field data and instrumentation to ensure that product remains on specification 3.3 Identify impacts of changes upstream and downstream 3.4 Identify actual and developing situations that may require action 3.5 Take action to remedy abnormal situations according to operating procedures 3.6 Complete required documents outlining abnormal situation management and corrective action taken
4. Complete transfer process	4.1 Complete transfer requirements within the allowable timeframes and schedules 4.2 Retrieve batching pigs, as required 4.3 Shut down, isolate and disengage transfer systems from or to the vessel 4.4 Continue to monitor and control fire, deluge and safety systems

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	during the finalisation of the loading process and let-go of the vessel 4.5 Complete logs and documentation and communicate the results of the transfer to personnel
5. Shut down and prepare transfer system for maintenance	5.1 Prepare transfer system to be shut down according to operating procedures 5.2 Complete pre-shutdown checks according to operating procedures 5.3 Shut down transfer system according to operating procedures 5.4 Identify, control and report shutdown hazards 5.5 Monitor shutdown and identify abnormal situations that may require action 5.6 Take action to remedy abnormal situations according to operating procedures 5.7 Shut down and changeover duty and standby equipment according to operating procedures 5.8 Isolate transfer system from energy sources
6. Prepare and start up transfer system	6.1 De-isolate and prepare transfer system to be returned to standby or service 6.2 Complete pre-start checks according to operating procedures 6.3 Start up transfer system according to operating procedures 6.4 Identify, control and report startup hazards 6.5 Monitor startup and identify abnormal situations that may require action 6.6 Take action to remedy abnormal situations according to operating procedures

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 PMAOPS312 Undertake ship loading/unloading operations.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for PMAOPS317 Undertake ship transfer operations

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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:

- at least 2 times, each in a separate work context which must include one of the following abnormal situations where emergency procedures are applied:
 - a vapour leakage
 - a product leakage
 - a product spill.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- all items on a schematic of the ship loading and/or unloading system, including:
 - principles of operation of plant and equipment
 - operating parameters and integrity limits, and product specifications and tolerances including temperature, pressure and flow,
 - methods of controlling the rate of transfer and the advantages and disadvantages of each
 - procedures for starting, stopping, operating, controlling and isolating the system
 - emergency shutdown procedures
 - interactions between plant items and processes
 - functions of major components and troubleshooting techniques
- impact of external factors including variations in weather
- storage and product transfer techniques and mediums
- the nature and condition of materials being transferred to and from the vessel and the factors to be considered in the transfer operation
- effects of temperature and pressure in transfer operations
- ship loading and/or unloading abnormal situations and required actions
- hierarchy of control
- ship loading and/or unloading hazards:
 - possible causes
 - potential consequences

- appropriate risk controls.

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:
 - ship loading and/or unloading equipment
 - product being transferred
 - vessel
 - operating procedures
- abnormal situations must be relevant to ship transfer operations.

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

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