



Australian Government

PMAOPS242A Moor ships for transfer of bulk processed particulates or fluids

Release 1

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Modification History

Release 1 – New unit

Unit Descriptor

This unit of competency covers the skills and knowledge needed to moor ships to a company or public facility for loading/unloading of bulk product. It includes the preparation and berthing of vessels and releasing vessels carrying bulk processed particulates or fluids.

Application of the Unit

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.

This unit applies:

- where process operators have responsibility for the mooring of a ship to a company or public facility
- the ship will typically be carrying bulk processed particulates or fluids.

It could be applied to a land-based mooring, a floating storage and offtake/floating production storage and offtake vessel (FSO/FPSO), buoy or similar mooring.

It may be appropriate to consider this unit with *PMAOPS312B Undertake ship loading/unloading operations*. Where relevant this unit should also be accessed.

This unit has been written to apply to the berthing of vessels transporting liquefied natural gas (LNG), liquefied petroleum gas (LPG), other bulk fluids and bulk processed particulates.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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|---|---|-----|--|
| 1 | Prepare for work | 1.1 | Identify work and compliance requirements |
| | | 1.2 | Identify and control hazards |
| | | 1.3 | Coordinate with appropriate personnel |
| | | 1.4 | Check operational status of required plant/equipment |
| | | 1.5 | Complete any required pre-berthing checks |
| 2 | Deploy hazard and environmental controls, as required | 2.1 | Check required controls are available and functional |
| | | 2.2 | Deploy controls in accordance with procedures |
| | | 2.3 | Withdraw controls in accordance with procedures |
| 3 | Berth ship | 3.1 | Communicate as required with relevant personnel |
| | | 3.2 | Receive and carry out instructions from shipping officer |
| | | 3.3 | Secure vessel in accordance with procedure |
| | | 3.4 | Ensure ship is positioned ready to receive or discharge |
| | | 3.4 | Ensure all hazard controls are followed |

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| 4 | Release ship | 4.1 | Communicate as required with relevant personnel |
| | | 4.2 | Receive and carry out instructions from shipping officer |
| | | 4.3 | Release vessel in accordance with procedure |
| | | 4.4 | Ensure all hazard controls are followed |
| | | | |
| 5 | Recognise problems and take appropriate action | 5.1 | Monitor mooring operation throughout the process |
| | | 5.2 | Adjust process as required by procedures |
| | | 5.3 | Take other appropriate actions on problems |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- recognising conditions which will lead to out of range conditions
- implementing enterprise procedures within time constraints and in a manner relevant to the correct mooring procedure
- conveying information relevant to the operation clearly and effectively
- maintaining appropriate levels of consistency of operation
- reading and numeracy to interpret workplace documents and technical information

Required knowledge

Required knowledge, to the breadth and depth required for the operation of the well and gathering systems includes:

- principles of mooring
- desirable parameters and limits (e.g. location relative to loading/unloading equipment, and speed of approach)
- duty of care obligations
- potential equipment and site hazards
- procedures and relative documentation
- isolation devices type and purpose
- emergency, fire suppression, fire alert and disaster procedures
- environmental incident management procedures
- hazard identification and risk assessment response procedures
- equipment associated with mooring operations
- relevant work health and safety (WHS) legislation and policies
- hierarchy of control
- communication protocols (e.g. radio, phone, computer, paper and permissions/authorities)
- typical issues causing problems and the resolution of those problems
- routine problems, faults and their symptoms, and the corrective action to be taken
- relevant environmental and heritage requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria required skills and knowledge range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Critical aspects for assessment and evidence are:

- ship is berthed and released smoothly
- berthed ship is in position to receive or discharge product
- health, safety and environment (HSE) controls are used as required.

Context of and specific resources for assessment

Assessment of this competency will occur over a range of situations which will include typical disruptions to normal, smooth operation. This will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability. Where safety, lack of opportunity or significant cost is an issue an industry-based simulation may be employed to assist the process.

Guidance information for assessment

Assessment processes and techniques must be appropriate to the language, competency and safety requirements of the site and consistent with workplace systems or procedures.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Procedures

Procedures may be written, verbal, computer-based or in some other form. They may include, but are not limited to:

- all work instructions
- standard operating procedures
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant
- good operating practice as may be defined by industry codes of practice

Procedures would be expected to comply with any relevant government regulations.

Logs and reports

Logs and reports may include:

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

Mooring operations

Mooring operations include, but are not limited to:

- throwing/heaving ship's lines
- capstan winch operation
- setting quick release hooks
- running out mooring line
- securing ship's lines
- releasing ship's lines
- preparing mooring area for operation
- making fast to wharf, dolphin or mooring buoy
- securing mooring lines

Appropriate action

Appropriate action includes, but is not limited to:

- 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 of procedures to designated person

Typical problems

Typical problems may include, but are not limited to:

- poor weather
- language issues with crew
- problems with ship's equipment

Health, safety and environment (HSE)

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state 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.

Unit Sector(s)

Unit Sector(s) Operational/technical

Competency field**Custom Content Section**

Not applicable.