



Australian Government

MARA016 Contribute to safe cargo operations on offshore support vessels

Release: 1

MARA016 Contribute to safe cargo operations on offshore support vessels

Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package.

Application

This unit involves the skills and knowledge required to undertake a range of offshore activities on board an offshore support vessel (OSV).

It includes deck preparation, transfer of deck cargoes, bulk cargo operations and operations with deck equipment within the limits of responsibility of an Integrated Rating and under the direction of the officer in charge or Master.

This unit applies to people working in the maritime industry assigned to specific activities and responsibilities in the capacity of:

- Integrated Rating working offshore.

Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit.

- This unit is one of the requirements to obtain Australian Maritime Safety Authority (AMSA) certification as an Integrated Rating working offshore and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
- Those regulatory requirements include STCW International Maritime Organization (IMO) model course competencies and areas of knowledge, understanding and proficiency, together with the estimated total hours required for lectures and practical exercises. Teaching staff should note that timings are suggestions only and should be adapted to suit individual groups of trainees depending on their experience, ability, equipment and staff available for training.

Pre-requisite Unit

Not applicable.

Competency Field

A – Handling Cargo and Vessel Stability

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Recognise characteristics of OSV cargo and OSVs to ensure the safe transfer and transport of cargo

1.1 Features of various offshore installation types, vessels rig types and operations are outlined

1.2 Cargo operations of OSVs are identified

1.3 Properties of cargo being transported are identified and their impact on safety, the environment and vessel operations is recognised

1.4 Hazards associated with the transport of cargo are clarified according to emergency response documentation

1.5 Hazard controls associated with OSV cargo are employed according to organisational procedures

2 Comply with legislative and organisational requirements for safe transfer and transport of OSV cargo

2.1 Safety data sheets (SDS)/material safety data sheets (MSDS)/International Maritime Dangerous Goods (IMDG) Code relevant to cargo are accessed and safety management procedures are identified

2.2 SDS/MSDS/IMDG Code are interpreted to identify relevant cargo-related hazards to the vessel and to personnel

2.3 Legislative, organisational and company-specific requirements are interpreted to identify appropriate actions for safe transfer and transport of cargo

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| | 2.4 | Transfer of cargo is undertaken under direction and within the limits of responsibility of an Integrated Rating |
| 3 Take precautions to prevent hazards | 3.1 | Organisational policies and procedures to minimise hazards are identified |
| | 3.2 | Type and severity of hazards posed by OSV cargo is recognised |
| | 3.3 | Transfer and transport of cargo is monitored to prevent hazards |
| | 3.4 | Monitoring equipment, where installed, is regularly inspected and used according to organisational procedures |
| 4 Respond to hazardous situation | 4.1 | Source of hazard is identified according to organisational procedures |
| | 4.2 | Risk is assessed considering severity and likelihood of consequences |
| | 4.3 | Control measures to minimise risk are implemented to level of responsibility or referred to appropriate person for permission or further action |
| | 4.4 | Containment procedures are applied where appropriate |
| | 4.5 | Appropriate safety procedures are followed and personal protective equipment (PPE) is used according to organisational procedures |
| | 4.6 | Risk is eliminated where possible |
| 5 Take precautions to prevent pollution of the environment from the release of liquid or dry bulk cargo | 5.1 | Procedures to prevent pollution are identified and observed at all times |
| | 5.2 | Measures to prevent pollution during normal and emergency situations are applied according to regulatory requirements and organisational procedures |
| | 5.3 | All relevant information is immediately reported to appropriate persons when a spill is detected or a malfunction has occurred that poses a risk of a spill |

- 5.4** All required spill containment procedures are correctly implemented according to regulatory requirements and organisational procedures

Foundation Skills

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

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit Mapping Information

This unit replaces and is equivalent to MARA007 Contribute to safe cargo operations on offshore support vessels

Links

Companion Volume implementation guide can be found in VetNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>

Assessment Requirements for MARAO16 Contribute to safe cargo operations on offshore support vessels

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- assisting in implementing shipboard cargo securing arrangements
- carrying out cargo operations safely and according to accepted policies and procedures, including:
 - loading and unloading dry bulk cargo
 - loading and unloading of liquid cargo
 - loading, unloading and care in transit of deck cargo
 - piping systems and deck valve arrangements
 - tubular cargo securing arrangements
- ensuring safe stowage or lashing of deck cargo
- identifying and developing awareness of hazardous situations
- identifying safety data sheets (SDS)/material safety data sheets (MSDS) and/or International Maritime Dangerous Goods (IMDG) Code, relevant cargo-related hazards to vessel and to personnel, and taking appropriate action for safe transfer and stowage of cargo
- interpreting and applying offshore support vessel (OSV) layouts, OSV cargo features, characteristics and hazards, and related hazard prevention strategies to duties on various types of OSVs
- reading and interpreting SDS/MSDS and/or IMDG Code
- recognising hazards and other problems that can arise when managing safety on an OSV, taking appropriate remedial action and initiating appropriate solutions
- reporting relevant information to the responsible person
- using verbal and non-verbal means of communication in a clear and appropriate manner to effectively communicate with other crew members.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- actions and measures to be taken in the event of spillage
- cargo operation procedures, including loading and unloading cargo
- features and characteristics of various types of OSVs, including:
 - general arrangement and construction
 - types of offshore installations, rigs and platforms
 - types of OSVs
- general arrangement and construction of OSVs
- hazards including:
 - electrostatic hazards
 - environmental hazards, including the effects of oil and chemical pollution on human and marine life
 - explosion and flammability hazards
 - hazards associated with:
 - below deck cargo operations
 - OSV bulk and liquid
 - OSV deck cargo operations
 - health hazards
 - pressure hazards
 - sources of ignition
 - toxicity hazards
- hazard control procedures on OSVs
- hazard risk control measures, including:
 - atmospheric control
 - cargo securing arrangements, including ensuring safe stowage or lashing of deck cargo
 - cargo segregation
 - equipment colour coding
 - personal protective equipment (PPE)
- information on SDS/MSDS and/or IMDG Code
- OSV safety culture and safety management systems (SMS)
- piping systems, hoses and valves
- procedures for the safe use of PPE
- properties of cargo being transported, including:
 - deck cargo types and characteristics
 - hazards of noxious liquid substances (NLS) cargo
 - hazards of offshore cargo operations
 - hazards of oil cargoes
 - tubular cargo stability and securing

- shipboard procedures to reflect current International Convention for the Prevention of Pollution from Ships (MARPOL) regulations to prevent pollution
- terminology relating to the structure and operations of various types of OSVs
- work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Practical assessment must occur onboard an OSV workplace, or realistic simulated workplace, under the normal range of workplace conditions.

Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- cargo, including:
 - containerised deck cargo
 - drilling brines
 - drilling muds
 - dry bulk cargo
 - heavy lifts and unusual lifts
 - NLS
 - oil
 - tubular deck cargo
- cargo securing equipment, including:
 - capstan winches and wires
 - cargo securing manual
 - cargo securing pins
 - chocks
 - dollies
 - tugger winches and wires
- range of relevant practical and written exercises, case studies and simulations that reflect typical conditions found in the workplace
- tools, equipment, machinery, materials and PPE currently used in industry

Links

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