



Australian Government

MARJ3001A Monitor environmental management on a vessel

Release 1

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Modification History

Release 1

This is the first release of this unit.

Unit Descriptor

This unit involves the skills and knowledge required to monitor the implementation of environmental management policies and procedures on a vessel up to 80 metres to ensure compliance with marine regulations and environmental considerations.

Application of the Unit

This unit applies to those working in the capacity of Master on a range of vessels up to 80 metres.

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 required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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|---|---|
| 1 Ensure crew are able to implement environmental work practices | <p>1.1 Information on <i>environmental management policies and procedures</i> is accessible and communicated to crew</p> <p>1.2 Information about identified <i>environmental hazards</i> and outcomes of risk assessments and risk control procedures are accessible and communicated to crew</p> <p>1.3 Crew are informed of environmental hazards and risk control measures relating to their work responsibilities</p> <p>1.4 Mentoring and coaching are provided to support individuals/crew to implement procedures to support environmental management</p> <p>1.5 Ensure <i>relevant principles</i> are implemented to meet environmental obligations and regulatory requirements</p> <p>1.6 Crew is consulted and environmental issues relevant to their work role are identified and promptly resolved or referred to appropriate personnel</p> |
| 2 Monitor observance of environmental management procedures | <p>2.1 Procedures for environmental management on the vessel are clearly defined and followed</p> <p>2.2 Deviations from environmental management procedures are identified and addressed</p> <p>2.3 Personal behaviour is monitored to ensure it is consistent with environmental management procedures</p> <p>2.4 <i>Housekeeping standards</i> on the vessel are maintained</p> <p>2.5 Breaches of environmental protection requirements are documented according to organisational procedures and regulatory requirements</p> |
| 3 Implement emergency procedures to respond to hazardous events | <p>3.1 Procedures for dealing with <i>hazardous events</i> are promptly implemented as required</p> <p>3.2 Hazardous events are investigated to identify cause</p> <p>3.3 <i>Control measures</i> to prevent recurrence and to minimise risks of hazardous events to the marine environment are implemented</p> <p>3.4 Emergency is reported in accordance with organisational procedures and regulatory requirements</p> |

4 Maintain and improve vessel environmental management

- 4.1 Risk assessments are conducted and appropriate control measures are identified and implemented according to organisational procedures
- 4.2 Appropriate records and log book entries are made to assist the review of managing environmental protection measures
- 4.3 Potential hazards are identified, assessed and removed or reported according to organisational procedures
- 4.4 Recommendations arising from risk assessments are implemented within level of responsibility
- 4.5 Inadequacies in control measures are identified and reported according to organisational procedures
- 4.6 Opportunities for improving environmental performance are identified and raised with appropriate personnel

Required Skills and Knowledge

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

Required Skills:

- Communicate information about environmental management and related procedures to crew
- Ensure that appropriate and timely action is taken in response to emergencies
- Ensure environmental records and documentation are accurate, complete and timely, according to organisational and regulatory requirements
- Ensure that housekeeping standards are maintained
- Model work policies and procedures to support environmental management in own work
- Monitor responsible resource utilisation on the vessel, consistent with organisational policies
- Participate in consultation processes to improve environmental management in the organisation
- Participate in investigations of non-compliance and risk assessment processes
- Provide access to and maintain current environmental management information for the crew
- Respond to environmental hazard identification and hazardous incidents in an appropriate and timely manner
- Review practice and procedures to implement recommendations arising from risk assessments
- Support others to follow environmental management procedures

Required Knowledge:

- Documentation system and procedures
- Effects on marine environment of various possible pollution incidents
- Environmental hazards and control methods associated with work activities on a vessel
- Legal responsibilities as determined by relevant legislation, codes of practice, policies and procedures to protect the marine environment
- Operational characteristics of emission control equipment used on various types and sizes of vessels
- Operational requirements of water, bilge, waste, pollution and recycling management processes used on various types and sizes of vessels
- Pollution control problems and related measures to protect the marine environment
- Principles of environmental management
- Principles of risk management
- Requirements for fishing, anchoring and other activities in environmentally sensitive areas
- Requirements under Australian and/or international legislation and conventions for reporting incidents related to breaches of the statutory codes and measures for the protection of the marine environment
- Responsibilities of self and employer to manage environmental issues

- Work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices

Evidence Guide

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

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

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- maintaining compliance with legislation for protection of the marine environment
- implementing preventative and remedial anti pollution procedures according to organisational and regulatory requirements
- identifying typical pollution control problems and taking appropriate action
- awareness of responsibilities for preventing pollution of the marine environment.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- industry-approved marine operations site where monitoring environmental management on a vessel may be assessed
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate monitoring environmental management on a vessel
- direct observation of candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

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

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.

Environmental management policies and procedures must include:

- Ballast water control
- Bilge pumping
- Disposal of garbage
- Disposal of waste oil
- Loss of cargo
- Loss of vessel
- Refuelling
- Sewage control
- Stowage and management of explosive and flammable material
- Transfer of fuel

Environmental hazards may include:

- Anchoring
- Harm to marine life
- Noise
- Oil pollution
- Polluting emissions of gas and smoke
- Spillages of cargo
- Spillages of fuel
- Waste pollution

Relevant principles may include:

- Ballast water management
- Preventing oil pollution
- Sewage discharge
- Stowage and management of explosive and flammable materials
- Waste collection, treatment, recycling or disposal

Housekeeping standards may include:

- Pollution control and equipment.
- Waste minimisation and control

Hazardous events may include:

- Anchoring in a prohibited sensitive area
- Garbage discharge
- Polluting emissions of gas and smoke
- Poorly maintained equipment and machinery resulting in pollution
- Sewage discharge
- Spillages of cargo
- Waste and debris spillage from oil and fuel containers

Control measures may include:

- Cofferdams around fuel vents and manifolds
- Oil spill absorbent material
- Oil spill containment equipment
- Oily water separators, if fitted
- Sound operational procedures

Unit Sector(s)

Not applicable.

Competency Field

Environment