



Australian Government

MARM015 Participate in investigating marine incidents

Release: 1

MARM015 Participate in investigating marine incidents

Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to participate in planning, conducting and reporting investigations of marine incidents that have resulted in, or have a potential to result in, injury or damage to persons, vessels, property or marine environment.

This unit applies to people working in the maritime industry as a domestic commercial vessel marine surveyor and may form part of accreditation requirements for surveyors under Australian legislation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

M – Marine Surveying

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Undertake initial assessment of incident

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| 1.1 | Statutory and legal obligations are identified and relevant government agencies are advised as required |
| 1.2 | Key stakeholders and interested parties are identified and notified as appropriate |
| 1.3 | Factors affecting complexity of investigation are determined and surveyor competency to conduct investigation is determined based on required specialised skills and knowledge |
| 1.4 | Area is checked to ensure it is safe |

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| | 1.5 | Integrity of site and personnel is established and maintained according to legal requirements and to ensure objectivity of information collected |
| 2 Participate in establishing investigation processes | 2.1 | Organisational policies and procedures, and national law for marine incident investigation are accessed and applied |
| | 2.2 | Scope of investigation is defined taking account of legislative requirements and client instructions |
| | 2.3 | Investigation team appropriate to level of responsibility in investigation is convened |
| | 2.4 | Involvement of stakeholders and interested parties is managed according to legislative requirements |
| | 2.5 | Resources and expert advice required to assist in incident assessment are identified and sourced |
| | 2.6 | Barriers to investigation are identified and addressed |
| | 2.7 | Development and implementation of action plans and timelines is ensured |
| 3 Collect information and data for analysis | 3.1 | Sources of information and data are identified and accessed |
| | 3.2 | Incident site, equipment and other evidence is inspected |
| | 3.3 | Gathering of information and data by others is facilitated |
| | 3.4 | Photographs, measurements and documentary evidence are taken and recorded, taking objectivity, confidentiality and legal implications into account |
| | 3.5 | Site, evidence and necessary documentation is appropriately secured |
| 4 Analyse information and data | 4.1 | Understanding and identification of conceptual basis for analysis is ensured |
| | 4.2 | Timeline of events leading up to incident is constructed using vessel records and other available data |
| | 4.3 | Causative event/s and conditions and circumstances that may have contributed to causative event are accurately identified and documented |
| | 4.4 | Intervention points on timeline for prevention are identified |
| 5 Compile | 5.1 | Results of analysis are documented in a format to suit |

investigation report

required target audience and legal requirements

- 5.2 Report is phrased in objective terms, and evidence and reasons for conclusions are cited
- 5.3 Recommendations for prevention are included in report
- 5.4 Relevant information and data is disseminated to key personnel, stakeholders and external agencies as appropriate, following appropriate authorisation
- 5.5 Findings from report are used to develop further prevention strategies

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.

Relevant government agencies include one or more of the following:

- Australian Maritime Safety Authority (AMSA)
- Australian Transport Safety Bureau (ATSB)
- environment protection agencies
- maritime authorities
- police and other emergency services
- work health and safety/occupational health and safety (WHS/OHS) specialists

Stakeholders and interested parties include one or more of the following:

- community
- coroner
- government agencies, including WHS/OHS and emergency service agencies
- importers
- installers
- insurance companies
- managers
- manufacturers
- media

	• naval architects and marine engineers • organisation board or advisory council • persons in control of workplaces • politicians • ship personnel • sub-contractors • suppliers and distributors • unions • workgroup members and people who may be exposed to similar situations
Complexity includes one or more of the following:	• administrative implications • conflict of interest issues • existence of secondary hazards • international conventions • involvement of external agencies • language competencies of parties involved • legal implications arising from incident or post incident related matters • level of public or political interest • number of other parties, including sub-contractors • privacy laws • seriousness of injury or other outcomes • technical implications
Investigation team includes one or more of the following:	• emergency service personnel • government representatives • legal advisors and technical experts • other surveyors • photographers
Barriers to investigation includes one or more of the following:	• research data and analysis or testing equipment • technical design information and data relevant to investigation • changes to incident scene • condition of witnesses • cultural issues • economic implications • geographical location and/or accessibility • lack of records • legal restrictions or limitations (temporary, short-term or long-term) • length of time from when incident occurred/first identified • limited resources available • political and community stakeholder sensitivity • ship personnel (attitude and/or desire to protect self and others)

Conceptual basis for analysis includes one or more of the following:	• time limits imposed • weather, tides • focusing on ‘why’ and ‘how’ rather than ‘what’ • emphasising analysis of operations at time of incident • encouraging an open minded, objective approach • not focusing on individual behaviour or fault
Timeline of events includes one or more of the following:	• events that extend back in time as far as required, not just immediate events • verbal reports from crew • vessel records and logs
Conditions and circumstances include one or more of the following:	• cargo • equipment failure • fatigue • key person absence • number of crew • onboard safety systems and WHS/OHS procedures • stability • type of: • equipment • vessel • vessel operations • weather
Target audience includes one or more of the following:	• environment protection agencies • insurance agents • maritime authorities • organisation • police or coroner • vessel owner/s

Unit Mapping Information

This unit replaces and is equivalent to MARM5005A Participate in investigating marine incidents.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>

Assessment Requirements for MARM015 Participate in investigating marine incidents

Modification History

Release 1. New unit of competency.

Performance 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 on at least one occasion and include:

- accessing data on marine investigations, accidents and incidents from a variety of sources
- accessing relevant marine incident information and data
- analysing relevant workplace information and data
- applying relevant work health and safety/occupational health and safety (WHS/OHS) requirements and work practices
- carrying out calculations (such as vessel stability)
- communicating effectively with personnel at all levels of the organisation, marine incident specialists and, as required, emergency services personnel
- conducting effective formal and informal meetings
- consulting and negotiating with others to develop plans and to implement and monitor designated actions
- contributing to and assessing resources needed to systematically manage marine incidents and, where appropriate, access these resources
- developing effective planning documents
- effectively liaising with internal and external authorities/agencies
- identifying areas for improvement with the survey of marine incidents
- making observations of workplace tasks and interactions between people, their activities, equipment, environment and systems
- managing:
 - incident and responsibilities of self and others
 - own tasks within a timeframe
- paying attention to detail when making observations and recording outcomes
- preparing high quality reports for a range of target groups and stakeholders
- producing accurate and reliable information and data related to vessel, crew and/or marine environment
- using a range of communication media
- using basic measuring equipment including reading scales and dials applicable to selected hazards.

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:

- characteristics, mode of action and survey tasks for major and minor marine incidents
- concept of common law duty of care
- ethics related to professional practice
- formal and informal communication and consultation processes, and key personnel related to communication
- how the characteristics and composition of the workforce impact on risk and the systematic approach to managing a marine incident, for example:
- communication skills
 - cultural background/workplace diversity
 - gender
 - language, literacy and numeracy
 - structure and organisation of workforce (part-time, casual and contract workers, shift rosters, geographical location)
 - workers with specific needs
- internal and external sources of information and data
- language, literacy and cultural profile of the work group
- legislative requirements for marine incident information and data, and consultation
- marine incident causation for a range of different incidents including marine environment incidents
- methods of providing evidence of compliance with maritime legislation
- nature of workplace processes (including work flow, planning and control) and hazards relevant to particular workplace, vessel and vessel operations
- organisational policies and procedures
- other functional areas that impact on managing marine incidents
- principles and practices of continuity and validity of evidence retention for potential legal action
- requirements for:
 - recordkeeping that addresses privacy, maritime and other applicable legislation
 - reporting marine incidents under legislation, organisational policy and procedures, codes of practice including notification and reporting of incidents
- requirements under hazard specific legislation and codes of practice
- rights of marine safety inspectors
- roles and responsibilities of vessel employees and other stakeholders including agents and contractors
- standard industry controls for a range of hazards
- state/territory and commonwealth maritime legislation (acts, regulations, codes of practice, associated standards and guidance material) including prescriptive and performance approaches and links to other relevant legislation such as industrial relations, WHS/OHS and

duty of care

- WHS/OHS legislation, policies and procedures.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must satisfy the National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) standards.

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.

Assessment must occur in workplace operational situations or where these are not available, in simulated workplace operational situations or an industry-approved marine operations site that replicates workplace conditions, where participation in the investigation of marine incidents can be conducted

Resources for assessment include access to:

- relevant documentation including workplace procedures, regulations, codes of practice and operation manuals
- tools, equipment, materials and personal protective equipment currently used in industry.

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

Links

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