



Australian Government

MARM5008A Undertake a periodic statutory survey

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 undertake statutory periodic surveys of vessels.

Application of the Unit

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.

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 Identify survey scope | <p>1.1 Vessel survey regime is identified and relevant regulatory requirements, organisational requirements and procedures for survey scope are accessed and reviewed</p> <p>1.2 Vessel survey regime is confirmed against relevant regulatory requirements</p> <p>1.3 Survey scope and depth is confirmed against relevant regulatory and organisational requirements</p> <p>1.4 Survey purpose objectives and variations are clarified with relevant personnel</p> <p>1.5 Relevant regulatory and organisational requirements are reflected in survey plan</p> |
| 2 Plan and prepare for survey | <p>2.1 Clients/representatives are informed of survey schedule according to relevant regulatory and organisational requirements</p> <p>2.2 Survey time and location are confirmed with relevant personnel</p> <p>2.3 Vessel history and supporting documents are located and reviewed in preparation for survey</p> <p>2.4 Operational limits, certificate of operations and previous certificates of survey are reviewed for special conditions or equivalent solutions and included in survey plan where required</p> <p>2.5 Relevant standards for vessel equipment are identified, accessed and included in survey plan as required</p> <p>2.6 Survey tools and equipment requirements for survey and range of variations are accurately identified, selected and tested for serviceability</p> <p>2.7 Likelihood of confrontation or risks to self are identified and managed according to organisational procedures</p> <p>2.8 Risks related to scope of survey are identified and managed according to organisational procedures</p> |
| 3 Conduct survey | <p>3.1 Legal requirements for conducting periodic surveys are reviewed and applied</p> <p>3.2 Purpose and scope of survey is confirmed with clients/representatives</p> <p>3.3 Continued existence, quantity and/or type of components, systems or equipment on board vessel is verified, examined and/or tested</p> |

according to survey schedule

- 3.4 Degradation or loss of functionality in components, systems or equipment is noted for repair, deficiency or renewal in survey report
- 3.5 Vessel construction, machinery or equipment not under survey but noted as unsafe are reported according to relevant regulatory, legislative and organisational requirements
- 3.6 Survey findings are documented in vessel history log in a systematic order and according to survey schedule and organisational requirements
- 3.7 Survey results are confirmed with clients/representatives, and improvements and actions required to issue certificate of survey for vessel are noted and issued to clients/representatives

4 Finalise survey

- 4.1 Survey outcomes are logged or reported to relevant personnel according to organisational requirements
- 4.2 Improvement actions required are reviewed for compliance before certificate of survey is issued
- 4.3 Results of final compliance requirements are forwarded to relevant personnel for certification

Required Skills and Knowledge

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

Required Skills:

- Accurately interpret standards and guidelines, and apply rules and/or regulatory requirements to survey tasks
- Carry out survey tasks in a logical sequence according to organisational operating procedures
- Communicate effectively with a diverse range of clients/representatives and staff
- Conduct vessel history searches
- Follow instructions, regulations, marine orders, organisational operating procedures
- Identify defects, faults and corrosion to operational systems, hull and superstructure, safety and fire equipment
- Operate technical and electronic equipment
- Select and use suitable equipment including personal protection equipment
- Use a range of communication techniques including:
 - establishing rapport
 - listening
 - negotiating
 - probing
 - reflecting
 - resolving conflict
- Use appropriate communication and interpersonal techniques with colleagues and people external to the organisation
- Use business technology and common software programs
- Work independently and unsupervised
- Write reports

Required Knowledge:

- Applicable Australian/New Zealand Standards (AS/NZS), in particular:
 - AS/NZS 3000: 2007 Electrical installations
 - AS/NZS 3017: 2007 Electrical installations – verification guidelines
 - AS/NZS ISO 9001: 2008 Quality Management Systems – requirements
- Certificates of operation and how they apply to the survey task, in particular:
 - assessment of seafarer eligibility
 - certificate of survey requirements
 - restrictions and endorsements
 - safety management system (SMS) requirements

- International conventions and acts such as International Convention for the Prevention of Pollution from Ships (MARPOL), safety of life at sea (SOLAS)
- International conventions for load lines
- Legal requirements relating to recording information
- Marine Safety (Domestic Commercial Vessel) National Law
- National and international regulations, International Maritime Organisation (IMO) Conventions and Codes, including Australian Maritime Safety Authority (AMSA) Marine Orders
- National Standard for Commercial Vessels (NSCV) relating to conducting periodic surveys and in particular:
 - Part B – General Requirements
 - Part E – Operational Practices
- National Standard for the Administration of Marine Safety (NSAMS)
- Risk management principles and techniques
- Role of surveyor in carrying out periodic statutory surveys
- State/territory and local government legislation and regulations relating to:
 - environmental protection
 - maritime regulations
- Work health and safety (WHS)/occupational health and safety (OHS) requirements and safe 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:

- analysing, planning and conducting a periodic survey for at least three different vessels and under different conditions
- developing effective planning documents
- communicating effectively with others as required
- providing high quality reports.

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 undertaking a periodic statutory survey can be conducted
- 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 undertaking a periodic statutory survey
- direct observation of the 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.

- | | |
|---|---|
| Survey regime may include: | <ul style="list-style-type: none">• Class of vessel• Survey level of vessel |
| Relevant regulatory requirements may include: | <ul style="list-style-type: none">• Australian/New Zealand Standards (AS/NZS), in particular:<ul style="list-style-type: none">• AS/NZS 3000: 2007 Electrical installations• AS/NZS 3017: 2007 Electrical installations – verification guidelines• AS/NZS ISO 9001: 2008 Quality Management Systems - requirements• NSCV<ul style="list-style-type: none">• Part B – General Requirements• Part E – Operational Practices• NSAMS Section 4 |
| Variations may include: | <ul style="list-style-type: none">• Combined Uniform Shipping Laws (USL) Code and NSCV• Equivalent solutions• NSCV• Pre USL Code• USL Code |
| Relevant personnel may include: | <ul style="list-style-type: none">• Classification societies• Colleagues• Government bodies• Owners or owner representatives of vessels and/or charters• Port authorities |
| Clients/representatives may include: | <ul style="list-style-type: none">• Classification societies• Environmental agencies/authorities• Government bodies• Lawyers• Owners of vessels and/or charterers• Port authorities |
| Survey schedule may include: | <ul style="list-style-type: none">• Twelve months• Twenty-four months• Thirty-months• Five year cycle with NSAMS:<ul style="list-style-type: none">• periodic survey (either annual or bi-annual)• change of class survey |

- safety equipment only survey
 - damage/repair or condition surveys
 - equivalent solution or deemed-to-satisfy surveys
 - SMS components
 - in water
 - out of water
- Vessel history and supporting documents may include:
- Case files/incident reports
 - Commercial documentation
 - Current survey practice, both formal and informal
 - Current vessel designs, practices and materials
 - Deck and engine logs
 - Forms (such as application forms, notification forms)
 - Insurance certificates
 - Notices (such as seizure notice, infringement notice)
 - Previous surveys and Certificates of Survey
 - Relevant national and international standards
 - Ship log books and other recordkeeping instruments
 - Vessel Stability Book
- Operational limits may include:
- Certificate of operations
 - Certificate of survey
 - Restrictions and endorsements
 - SMS
- Survey tools and equipment may include:
- Communication equipment
 - Draft survey hydrometer
 - Drill
 - Entry authority
 - Hammer/welder's hammer
 - Mallet
 - Mirror
 - Personal protective equipment such as respirators, gloves, overalls, boots, hearing protection, goggles, masks
 - Photographs
 - Plastic sampling bags
 - Pocket calculator
 - Recording equipment:
 - camera
 - dictaphone
 - laptop computer
 - notebook
 - Sampling equipment:

- Risks may include:
- silver nitrate test kit for chlorides
 - test kit equipment
 - thermometers
 - water-detecting paste
 - Satellite imagery
 - Scraper
 - Screwdriver
 - Sounding tapes
 - Storage equipment/facilities
 - Tape measure/measuring wheel
 - Age of vessel
 - Area of operation, nature of operation
 - Incident history of particular class of vessels
 - Operational and maintenance performance of operator
 - Personal attributes of operator/client
 - Physical attributes of vessel
- Legal requirements may include:
- Common law
 - Conflict of interest
 - Consequences and penalties for noncompliance
 - Duty of care
 - Ethical behaviour
 - Requirements under Marine Safety (Domestic Commercial Vessel) National Law

Unit Sector(s)

Not applicable.

Competency Field

Marine Surveying