



# QUALIFICATIONS FOR THE CERTIFICATION OF SEAFARERS

REVISION 7

November 2021



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Canada

<b>The Examination and Certification of Seafarers</b>	<b>TP 2293E</b>
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TP 2293E  
(11/2021)

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## Chapter 1 – General

### 1.1 Reference to Act and Regulations

The *Marine Personnel Regulations 2023* (MPR 2023) were made by the Governor in Council under sections 35 and 100 of the *Canada Shipping Act, 2001*, in order to specify the crewing and certification requirements on board vessels.

Section 16 of the *Canada Shipping Act, 2001* (CSA 2001) provides for the Minister to specify the manner Canadian Maritime Documents (including certificates of competency) are issued, and to set the examinations a person must undergo in order to obtain such a certificate. Section 17 provides for the Minister to specify the period of validity of every maritime document.

### 1.2 Purpose

The purpose of this publication is to establish specifications of a technical nature to complete the conditions and requirements set out in the CSA 2001 and MPR 2023 in respect of issuance of certificates of competency and are intended to be read in conjunction with the Regulations

### 1.3 Related reference material

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.

### 1.4 Definitions

**Qualifying service** - means service other than sea service credited to an applicant in order for them to meet the experience requirements for a certificate or an endorsement issued under Part 1 of the *Marine Personnel Regulations, 2023*. (*service admissible*)

**Sea service** - means service on board a ship credited to an applicant in order for them to meet the experience requirements for a certificate or an endorsement issued under Part 1 of the *Marine Personnel Regulations, 2023*. (*service en mer*)



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## **Chapter 2 – Sea Service Requirements - Assessment of Qualifying Service**

### **Qualifying Service**

1. Sea service is a key component of demonstration of a seafarers competency to perform the duties, tasks and responsibilities associated with holding a certificate of competency, certificate of proficiency, or other document attesting to a seafarers competence. Sea service is defined in the STCW as “seagoing service means service on board a ship relevant to the issue or revalidation of a certificate or other qualification”. Sea service must therefore be assessed both as meeting the specific provisions of the regulations (length, voyages, propulsive power, position occupied) and also assessed as being relevant to the certificate to be obtained or renewed.
2. Documentation to be submitted in support a claim of sea service will include discharge certificates and testimonials of sea service. An applicant, however, may be required to submit any further documentation needed to clarify any question regarding the relevance of the service or the validity of the documents submitted. The onus of demonstrating the relevance of the service or the validity of the documents is on the applicant.
3. Documentation submitted must be in either English or French. All foreign-issued documents evidencing service which are in languages other than English or French must be translated into English or French, and evidence of authenticity must be provided in respect of these documents.

### **Calculation of sea service**

4. Time onboard is calculated from the date of engagement to the date of discharge. Service done before or after the articles of agreement (if any) are opened or closed can be accepted only if relevant for the certificate applied for.
5. Periods of sea service on a vessel or on more than one vessels cannot overlap. A service day counted on one voyage or vessel cannot be counted on another voyage or vessel.
6. The day an applicant signs on and the day he signs off may be credited as no more than one day in total, unless the actual hours of work for those days justify otherwise and are confirmed by the master, the authorized representative or the training institution.
7. The time during which an applicant works in addition to his regularly scheduled hours of work (overtime) does not count for the purpose of calculating sea service.
8. With respect to the accumulation of sea service for nautical certification, Service for watches of other than 8 hours in a calendar day shall be prorated to a maximum of 12 hours for that day based on a 12-hour watch equalling one and one-half days of sea service except for applicants registered in an approved cadet training program whose sea service shall be calculated on the basis of any amount of service in one calendar day equalling one day of service. The applicant may claim sea service at twelve hours per day which will be recognized only with substantiation in the form of testimonials, indicating twelve hour watch. For an applicant referred to as a “Cadet”, each day of training onboard will be counted as one calendar day. The same rule will apply when a cadet or trainee, during their sea phase, is temporarily designated to serve in a different capacity, for example as a rating forming part of a navigational watch and the time spent in the other capacity will only count as one day onboard equal one day of service.
9. With respect to the accumulation of sea service for an engineering department certificate issued under Division 3 and sections 1051, 1052, 1092 and 1093, between four and eight hours of sea service acquired during a calendar day equals a half day of sea service, and 8 hours or more sea service acquired during a calendar day equals one day of sea service, except for applicants registered in an approved cadet training program whose sea service shall be calculated on the basis of any amount of service in one calendar day equalling one day of service.

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10. Sea service acquired in a position other than as a cadet (prospective officer) will not be recognized for the twelve months sea service required under an approved nautical cadet training program except:
- If a cadet, whether bound by indentures or not, is promoted to un-certificated junior officer, then the service in the capacity of junior officer will be accepted as cadet service; or
  - If a cadet is hired in a position where the deck duties involve the performance of functions and duties associated with navigational watchkeeping (Bridge Watch Rating), including steering duties carried out under the direct supervision of the master, the officer in charge of the navigational watch or a qualified rating for a maximum period of four (4) months out of the twelve months sea service required under an approved nautical cadet training program, then the sea service will be accepted as cadet service conditional that:
    - The cadet indicates his/her intentions to the sea service program coordinator of the recognized institution;
    - The cadet is to complete the cadet onboard training record book for that period of time. The cadet onboard training record book to be submitted to the institution for evaluation on signing off the vessel.
    - The cadet provides a testimonial, signed and stamped by the master of the vessel, indicating that the sea service performed on board the vessel, in the specific capacity the cadet was hired, that the sea service acquired by the seafarer was while performing deck duties involving the performance of functions and duties associated with navigational watchkeeping including steering duties carried out under the direct supervision of the master, the officer in charge of the navigational watch or a qualified rating.

#### **Absence from vessel**

11. Where shore leave is taken or where a seafarer is otherwise absent during a period of engagement (i.e. while she or he is on the vessel's articles), only the days worked aboard the vessel are accepted as sea service.

#### **Service on shifts**

12. Where service is performed on the basis of alternance of shifts onboard and rest period ashore, only service on board the vessel is accepted as sea service, at the appropriate rate depending on the number of hours worked onboard per day.

#### **Calculating service using days spent at sea - Nautical**

13. Section 1006 of the MPR 2023, specifies: "The sea service that a person must acquire to obtain or renew a certificate of competency or a certificate of proficiency or to obtain an endorsement is the time spent by the person on board a vessel and includes service while the vessel is in port, loading or unloading, at anchor, in refit or in dry-dock, which service forms part of a voyage, or any other service that would allow the person to meet the experience requirement under this Part, in accordance with Chapter 2 of TP 2293".
14. This means that, a seafarer serving on a vessel accomplishing voyages should not be penalized if his vessel has to stay in port for a long period to load or unload, at anchor, or if his vessel goes for refit or goes to dry-dock during his period of employment. However, the period spent in refit or in dry-dock should not be excessive and to this effect, a maximum of 30 days of service can be accepted for a particular certificate.
15. On the other hand, when an applicant acquires sea service on a vessel (including an MOU) that spends prolonged periods alongside, in dry-dock or under repairs, the sea service will be calculated based on the number of days during which the vessel is under way as follows:
- Service will be credited at the rate of one and a half times the number of days during which the vessel is under way and proportionally to the number of hours worked per day below or in excess of 8 hours, that number not exceeding 12 and the total number of days of credited service not exceeding the total number of days served on board times the number of hours worked per day divided by 8.

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b) The table below may be used to calculate the service referred to in a).

**Table I - Nautical**

Julian date sign-off (+365 if year is later than sign-on year)	_____ (i)
Julian date sign-on	– _____ (ii)
Total number of days signed on (i) minus (ii)	_____ (A)
Total number of days underway (from testimonials)	_____ (B)
Total numbers of hours worked per day ( $x \leq 12$ ) (from testimonials)	_____ ( $x \leq 12$ )
(A) _____ $\times 1.5 =$ (C) _____ and (B) _____ $\times (x/8) \times 1.5 =$ (D) _____	
Select the lesser of (C) or (D) Total credit	_____

**Calculating service using days spent at sea - Engineering**

16. Section 1006 of the MPR 2023, specifies: “The sea service that a person must acquire to obtain or renew a certificate of competency or a certificate of proficiency or to obtain an endorsement is the time spent by the person on board a vessel and includes service while the vessel is in port, loading or unloading, at anchor, in refit or in dry-dock, which service forms part of a voyage, or any other service that would allow the person to meet the experience requirement under this Part, in accordance with Chapter 2 of TP 2293”.
17. Sea service may then include service periods while the vessel is in port for an extended period of time within the specified condition that this service forms part of a voyage. Service forming part of a voyage would include loading and discharging cargo at the start or end of a transit period, time spent at anchor, time spent in refit or in a dry-dock arising from unforeseen or urgent circumstances occurring within the course of a voyage. Time spent in regularly planned lay-up, fit-out, refit or dry-docking is not considered to form part of a voyage.
18. On the other hand, when an applicant acquires sea service on a vessel that spends prolonged periods alongside, such as harbour tugs, survey vessels, response vessels, government vessels, the sea service will be calculated based on the number of days during which the vessel is under way as follows:
  - c) Service will be credited at the rate of one and a half times the number of days during which the vessel is under way at a rate of 4 hours or more to less than 8 hours as one half day and 8 hours or more as one day.
  - d) The table below may be used to calculate the service referred to in a).

**Table II - Engineering**

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Julian date sign-off (+365 if year is later than sign-on year)	_____ (i)
Julian date sign-on	– _____ (ii)
Total number of days signed on (i) minus (ii)	_____ (A)
Total number of days underway (from testimonials)	_____ (B)
(B) _____ × 1.5 = (C) _____	_____ (C)
Select the lesser of (A) or (C) Total credit	_____

### ***Provisions Concerning Voyages***

#### ***Service Agreements***

##### **Service on vessels not maintaining agreements with the crew**

19. Where service has been performed on vessels where no agreements with the crew were maintained, a satisfactory testimonial of service must be produced, signed by the master, the chief engineer or the authorized representative of the vessel and certified by a credible person who has knowledge of the facts to be established.
20. When an applicant is the master/owner of his boat, unless their sea service can be certified by a credible person who has knowledge of the facts to be established, the applicant should get their sea service testimonials sworn before a commissioner of oaths.

#### **Evidence of service on foreign vessels**

21. Testimonials of service for seafarers serving on vessels registered abroad may have to be confirmed by the appropriate government or by some other recognized authority of the country in which the vessel is registered, or the testimony of some credible person who has knowledge of the facts to be established. Such testimonials may be certificates of discharge authenticated by a consul or other official before whom the seafarer was discharged, or by letters from the authorized representative of the vessel.

### ***Positions Held during Sea Service***

#### **Service performed to obtain nautical certificate**

22. Except as stated in the sections that follow, sea service must have been performed in the deck department.

#### **Rank or rating**

23. The rank or rating held by an applicant during a voyage will always be taken as that appearing in the agreement with the crew for that voyage.
24. Sea service while occupying non-traditional positions such as General Purpose (GP), will count only in that proportion of time spent doing deck department service. In this case, the master or authorized representative should indicate on sea service testimonials the actual functions occupied onboard and the proportion or percentage of time while carrying out deck or watchkeeping duties.

#### **Promotion of cadets**

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25. If a cadet engaged in an approved training program is temporarily employed during their onboard training as an able seafarer, a watch rating or any other capacity that is relevant for the certificate of competency sought, then the service in that capacity will be accepted as cadet service, if the cadet meets the training objectives of their program and completes their training record book.

**Service as pilot**

26. Actual time served on board a vessel as a pilot will be accepted as watchkeeping service but only up to a maximum of half of the service required for any one certificate, if the service otherwise meets the voyage class requirement of the MPR 2023.

***Service in the Canadian Armed Forces (CAF)***

**Nautical certificates**

27. Time served on board CAF vessels as an officer or a rating will be accepted for nautical certificates if the time was spent on upper-deck duties, on the following conditions:
- The statement of service is authenticated by Canadian Forces Headquarters, Ottawa, and specifies days at sea during the period served.
  - The applicant produces a testimonial signed by their commanding officer or naval officer-in-charge attesting to the proportion of time generally spent each day performing regular deck duties in addition to other duties.
  - Where application is being made to take an examination for a certificate requiring watchkeeping service, a watchkeeping certificate is produced, signed by the commanding officer if the service was performed on a vessel with a complement of at least 150 persons, or by the naval officer-in-charge or commanding officer of a flotilla or parent vessel if the service was performed on a small craft, classified as such by the CAF. In addition, evidence is produced to show that the service was performed while holding the required certificate.
28. If an applicant was not employed in bridge or seamanship duties, service will be credited to the applicant in accordance with the provisions of this chapter. In the case of applicants employed in trades with a percentage of time spent on deck duties, information provided by the Department of National Defence will be used to assess the service that can be accepted for nautical certificates.
29. The following table II indicates the proportion of time spent on upper deck duties by ratings in the various trades in the Canadian Navy. This rate is to be applied to the applicant's qualifying service for a deck certificate.

**Table II**

<b>Trade</b>	<b>Rate</b>
Airboatswain	Nil
Boatswain	100%
Clearance Diver	75%
Firecontrolman	75%
Hull Technician/Mechanic	25%
Meteorological Technician	50%
Radar Plotter	75%
Radioman Sea	30%
Ships duties – Administrative	25%
Ships duties – Pay	25%

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<b>Trade</b>	<b>Rate</b>
Signalmen	90%
Sonar Man	75%
Storesmen – Victualling	25%
Storesmen – Naval	25%
Weaponman, Surface	75%
Weaponman, Underwater	75%

### *Service in the Offshore Resource Industry*

#### **Service for MOU certificates**

30. Service on mobile offshore units (MOUs) is accepted in full for the purpose of obtaining a certificate specific to MOUs, subject if applicable, to the rule on the number of hours worked other than eight hours in a calendar day, set out in subsection 1006(2) of the MPR 2023, and limitations with regard to the type of MOU, set out in sections 1084 to 1094 of those Regulations.
31. MPR 2023 requires that some of the sea service to obtain an MOU certificate of competency be performed while occupying positions as a Senior Department Head, Deputy Department Head, or in a Technical position, as described in TP 2293. Applicants must submit supporting documentation from the MOU owner or operator describing the applicants duties, tasks, responsibilities and reporting structure. These positions are described as follows.
  - a) For the purpose of obtaining or renewing certificates of competency pursuant to sections:
    - i) 1086 Offshore Installation Manager MOU/Surface
    - ii) 1087 Offshore Installation Manager MOU/FPSO
    - iii) 1088 Offshore Installation Manager MOU/Self-elevating
    - iv) 1091 Barge Supervisor MOU/ Self-elevating
  - b) Senior department head positions are the heads of the departments for:
    - i) Marine activities of the MOU, known as, Barge Supervisor, Barge Master, and similar titles;
    - ii) Maintenance of the machinery and systems required for the offshore activities of the MOU known as Maintenance Supervisor, Technical Section Leader, and similar titles;
    - iii) Maintenance of machinery and systems for the marine activities of the MOU, known as Chief Engineer, First Engineer, Maintenance Supervisor and similar titles;
    - iv) Drilling, known as Drilling Superintendent, and similar titles;
    - v) Sub-sea machinery, equipment and operations, known as Senior Sub-sea Supervisor and similar titles.
  - c) Deputy department heads are:
    - i) The deputy heads of the departments listed above known as Marine Coordinator, Chief Mate; Instrument Coordinator, Mechanical Coordinator, Electrical Coordinator, Utility Technician, Second Engineer, Production Coordinator, Assistant Barge Supervisor, Deck Pusher, Driller, Assistant Driller, Chief Mechanic, Mechanical Supervisor, Electrical Supervisor, Sub-sea Supervisor, Sub-sea engineer and similar titles.
  - d) Technical positions are:
    - i) The technical positions reporting directly to the department head or deputy department head, which positions have immediate responsibilities for the department's operations, known as Marine Technician, Watchkeeping Mate, Instrument Technician, Mechanical Technician,

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Electrical Technician, Watchkeeping Engineer, Production Technician, Control Room Operator, and similar titles.

#### **Service for nautical certificates**

32. Those serving on self-propelled MOUs, including mobile offshore drilling units (MOUs), either in transit or maintaining position by means of thrusters or dynamic positioning, will accrue sea service at the same rate as the one applicable for vessels other than MOUs. In these cases, conventional descriptions of the position in which the applicant has served will be relied on.
33. Service on surface MOUs not maintaining position by means of dynamic positioning, or on non self-propelled units, will be assessed in accordance with Table III.

**Table III**

<b>Certificate Applied for</b>	<b>Position served in</b>	<b>Qualifying Service Rate</b>	<b>Maximum Qualifying Service</b>
Bridge Watch Rating or Able Seafarer deck	Deckhand, Roustabout, Roughneck, Crane Operator, Crane Operator Assistant or any position listed below that is applicable to a Watchkeeping Mate certificate	Full	No limit
Watchkeeping Mate or Watchkeeping Mate, Near Coastal	Toolpusher, Nightpusher, Driller, Assistant Driller, Derrickman, Derrickman Assistant, Crane Operator, Crane Operator Assistant, Deckhand, Roughneck, Roustabout, Ballast Control Operator, Radio Operator, Dynamic Positioning System Operator, Tourpusher, Ice Observer	2/3	30 months
Master 500 Gross Tonnage; or Master, 500 Gross Tonnage, Near Coastal	The following watchkeeping officers: Ballast Control Operator, Dynamic Positioning System Operator or Stability Technician, while holding a Watchkeeping Mate or a Watchkeeping Mate, Near Coastal, or a Master, 3000 Gross Tonnage, Domestic, or a Master, 500 Gross Tonnage, Domestic certificate	2/3	6 months
Chief Mate or Chief Mate, Near Coastal	The following watchkeeping officers: Ballast Control Operator, Dynamic Positioning System Operator or Stability Technician, while holding a Watchkeeping Mate or a Watchkeeping Mate, Near Coastal certificate	2/3	6 months
Master Mariner, Master, Near Coastal; Master 3000 Gross Tonnage; or Master 3000 Gross Tonnage, Near Coastal	The following watchkeeping officers: Ballast Control Operator, Dynamic Positioning System Operator, Barge Supervisor or Stability Technician, while holding a Watchkeeping Mate or a Watchkeeping Mate, Near Coastal certificate	2/3	30 months

#### **Service for engineering certificates**

34. Those serving on self-propelled MOUs which are in transit, or MOUs maintaining position by means of thrusters or dynamic positioning, or with thrusters or propulsion machinery in stand-by mode, will accrue sea service in accordance with Table V.

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**Table IV**

<b>Certificate Applied for</b>	<b>Position served in</b>	<b>Qualifying Service Rate</b>	<b>Maximum Qualifying Service</b>
Engine-room Rating	Motorman, Oiler, Mechanic, Mechanical Assistant while keeping watch or performing designated duties in unattended machinery spaces, performing engineering functions in respect of the propulsion machinery under the supervision of a qualified engineer.	Full	6 months
Able Seafarer Engine	While holding an Engine-room Rating certificate of competency: any position listed above as applicable to an Engine-room Rating certificate of competency,	Full	12 months
Engineer in charge of the Watch	Any position listed above as applicable to an Engine-room Rating certificate of competency, and Sub-Sea Engineer, Assistant Sub-Sea Engineer, Electrician/Electrical Technician, Mechanic, Mechanical Technician	Full	12 months
Second Engineer	Engineer in charge of the watch while holding an Officer in Charge of the Watch Certificate	Full	No Limit
Chief Engineer	Engineer in charge of the watch while holding an Officer in Charge of the Watch Certificate or a Second Engineer Certificate	Full	No Limit

### **Other Service**

#### **Approved training programs**

35. In the case of an approved cadet training program, an applicant who leaves the program before completion is credited for the sea service they have performed onboard vessels when they were in the program. Furthermore, if at the time they left the program they had successfully completed courses that replace examinations, they are credited for these examinations. In all cases, an attestation from the recognized institution must be provided to the examiner.

#### **Service on an Air Cushion Vessel (ACV)**

36. Sea service on an ACV must be recorded in the seafarer's discharge book, certified pilot logbook or a testimonial signed by the executive officer of the company or ACV unit who has full knowledge of the service. The applicant must submit those documents, along with the *Statement of Qualifying Service* form, when claiming sea service.
37. Service on an ACV will be accepted based on the following table of equivalency between all up weight and length overall or tonnage:

MPR 2023 minimum required length or gross tonnage	Corresponding ACV minimum all up weight
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8,5 metres in LOA	1 000 kg
12,0 metres in LOA	4 500 kg
18,0 metres in registered length	10 000 kg
24,0 metres in registered length	50 000 kg
500 Gross Tonnage	100 000 kg

### ***Watchkeeping Service***

#### **Service as Master or Chief Officer**

38. Sea service as master, while the holder of one of the certificates required by the MPR 2023 for that position, is accepted as watchkeeping sea service.
39. Sea service as non-watchkeeping chief officer, as staff captain or in a similar capacity (equivalent titles sometimes used on foreign vessels or within a company), while holding the required certificate, is accepted as watchkeeping sea service provided that:
  - a) the applicant participated in the actual manoeuvring of the vessel;
  - b) the applicant supervised a watch for a total of at least 30 hours a month; and
  - c) a signed testimonial by the master to the above effect is produced, to the satisfaction of the examiner.

#### **Sea Service as Chief Engineer or Second Engineer**

40. Sea Service as chief engineer, while holding the required certificate, is accepted as watchkeeping sea service.
41. Sea Service as second engineer on day work, while holding the required certificate, is accepted as watchkeeping sea service provided that the engineer supervised a watch for a total of at least 30 hours a month in the engine room, including time while the vessel was manoeuvring. A testimonial signed by the chief engineer to this effect must be presented to the examiner.

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## Chapter 3 – Qualifications for Master and Mates Certificates of Competency

### General

#### 3.1 Ability to Steer

The applicant for a certificate of competency for which the qualification “Ability to Steer” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successfully completes an approved steering course from a , or
2. Submits to the Minister a steering testimonial which contains the following information:
  - 1) Name and address of vessel owner
  - 2) Information on the vessel:
    - (a) name
    - (b) port of registry
    - (c) official number /IMO number
    - (d) gross tonnage
    - (e) vessel type
  - 3) Name and applicant number (CDN) of seafarer
  - 4) Position occupied onboard
  - 5) Date seafarer signed on
  - 6) Date seafarer signed off
  - 7) Description of voyage/service
  - 8) The following declaration signed and dated by the master:

“I certify that the above-named seafarer has performed navigational watchkeeping functions including service at the wheel during his service under my command and I am satisfied that the seafarer is competent to steer the ship and comply with helm orders.”

#### 3.2 Communications (COM)

The applicant for a certificate of competency for which the qualification “Communications (COM)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Communications, or
3. Obtain a 70 percent grade or more on the TC examination on Communications (COM).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence.

Competence	Knowledge, Understanding and Proficiency
<ul style="list-style-type: none"> <li>- Use the International Maritime Organisation (IMO) Standard Marine Communication Phrases and use English written and oral form.</li> <li>- Transmit and receive information by visual signaling.</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code.</p>

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### 3.3 Chartwork and Navigation Safety (C&NS)

The applicant for a certificate of competency for which the qualification “Chartwork and Navigation Safety (C&NS)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Chartwork and Navigation Safety, or
2. Obtain a 70 percent grade or more on the TC examination on Chartwork and Navigation Safety (C&NS).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the following tasks, duties and responsibilities to maintain a safe navigational watch.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
Maintain a safe navigational watch	<p>The candidate must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- Practical understanding of chart construction and knowledge of the information displayed on charts</li> <li>- Practical knowledge of publications found in the wheelhouse of a fishing vessel of less than 24 metres in length overall</li> <li>- Ability to determine the vessels position and plot the position on the chart and the ability to plot the true course between two positions.</li> <li>- Practical knowledge of record keeping</li> <li>- Practical understanding of magnetic variation and deviation</li> <li>- Practical knowledge and understanding of the International Regulations for Preventing Collisions at Sea with Canadian Modifications.</li> <li>- Practical understanding of principles to be observed in keeping a navigational watch on board a fishing vessel of less than 24 metres in length overall</li> </ul>

### 3.4 Chartwork & Pilotage, Level 1 (C&P 1)

The applicant for a certificate of competency for which the qualification “Chartwork and Pilotage, Level 1 (C&P 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Chartwork and Pilotage, Level 1, or
2. Obtain a 70 percent grade or more on the TC examination on Chartwork and Pilotage, Level 1 (C&P 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
Plan and conduct a coastal passage and determine position	<p>The applicant must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- Knowledge of principles of construction of the different types of charts and their use</li> <li>- Thorough knowledge of and ability to use publications</li> <li>- Ability to determine the ship's position by use of: <ul style="list-style-type: none"> <li>1. landmarks</li> <li>2. aids to navigation, including lighthouses, beacons and buoys</li> <li>3. dead reckoning, taking into account winds, tides, currents and estimated speed</li> </ul> </li> <li>- Keeping a log book and a record of compass errors</li> </ul>

### 3.5 Chartwork & Pilotage, Level 2 (C&P 2)

The applicant for a certificate of competency for which the qualification "Chartwork and Pilotage, Level 2 (C&P 2)" is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Chartwork and Pilotage, Level 2, or
3. Obtain a 70 percent grade or more on the TC examination on Chartwork and Pilotage, Level 2 (C&P 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<p><b>Table A-II/1</b></p> <ul style="list-style-type: none"> <li>- Plan and conduct a passage and determine position.</li> </ul> <p><b>Table A-II/2</b></p> <ul style="list-style-type: none"> <li>- Determine and allow for compass errors.</li> <li>- Determine position and the accuracy of resultant position fix by any means.</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in:</p> <p>Column 2 of table <b>A-II/1</b> of the STCW Code as it pertains to: <i>Terrestrial and coastal navigation</i>, and ability to determine errors of the magnetic and gyro-compasses, using terrestrial means, and to allow for such errors.</p> <p>Column 2 of table <b>A-II/2</b> of the STCW Code as it pertains to:</p> <ul style="list-style-type: none"> <li>- Ability to determine and allow for errors of the magnetic and gyro-compasses.</li> <li>- Position determination in all conditions by terrestrial observations, including the ability to use appropriate charts,</li> </ul>

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	notices to mariners and other publications to assess the accuracy of the resulting position fix.
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### 3.6 Celestial Navigation, Level 1 (ASTRO 1)

The applicant for a certificate of competency for which the qualification “Celestial Navigation, Level 1 (ASTRO 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Celestial Navigation, Level 1, or
2. Obtain a 70 percent grade or more on the TC examination on Celestial Navigation, Level 1 (ASTRO 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/1</b> Plan and conduct a passage and determine position	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code:  Ability to use celestial bodies to determine the ship’s position.

### 3.7 Celestial Navigation, Level 2 (ASTRO 2)

The applicant for a certificate of competency for which the qualification “Celestial Navigation, Level 2 (ASTRO 2)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Celestial Navigation, Level 2, or
3. Obtain a 70 percent grade or more on the TC examination on Celestial Navigation, Level 2 (ASTRO 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/1</b> - Plan and conduct a passage and determine position	The applicant must have acquired the knowledge, understanding and proficiency listed in:
<b>Table A-II/2</b> - Plan a voyage and conduct navigation	Column 2 of table <b>A-II/1</b> of the STCW Code as it pertains to <i>celestial navigation</i> , and ability to determine errors of the magnetic and gyro-compasses, using celestial means, and to allow for such errors
- Determine position and the accuracy of resultant position fix by any means	Column 2 of table <b>A-II/2</b> of the STCW Code as it pertains to: - Voyage planning and navigation for all conditions by acceptable methods of plotting ocean tracks  - Position determination in all conditions by celestial observations

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### 3.8 Navigation Systems & Instruments (NS & I)

The applicant for a certificate of competency for which the qualification “Navigation Systems & Instruments (NS&I)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program that offers the Navigation Systems & Instruments (NS&I) as an optional subject of the cadet program,
2. Successful completion of an approved training course in Navigation Systems & Instruments, *or*
3. Obtain a 70 percent grade or more on the TC examination on Navigation Systems & Instruments (NS&I).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/2</b> - Determine position and the accuracy of resultant position fix by any means  - Determine and allow for compass errors	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code as it pertains to:  - Position determination in all conditions using modern electronic navigational aids, with specific knowledge of their operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing  - Ability to determine and allow for errors of the magnetic and gyro-compasses - Knowledge of the principles of magnetic and gyro-compasses - An understanding of systems under the control of the master gyro and a knowledge of the operation and care of the main types of gyro-compass

### 3.9 Electronic Positioning Systems (EPS)

The applicant for a certificate of competency for which the qualification “Electronic Position Systems (EPS)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Electronic Positioning Systems, *or*
3. Obtain a 70 percent grade or more on the TC examination on Electronic Positioning Systems (EPS).

The method chosen to demonstrate that the applicant possess the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence; and use of radar and ARPA to maintain safety of navigation.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/1</b> Plan and conduct a passage and determine position	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code as it pertains to:

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	<ul style="list-style-type: none"> <li>- <i>Electronic systems of position fixing and navigation</i></li> <li>- <i>Echo-sounders</i></li> <li>- <i>Compass – magnetic and gyro</i></li> <li>- <i>Steering control system</i></li> </ul>
- Use of radar and ARPA to maintain safety of navigation	<i>Radar navigation</i> <ul style="list-style-type: none"> <li>- Knowledge of the fundamentals of radar and automatic radar plotting aids (ARPA)</li> <li>- Ability to operate and to interpret and analyse information obtained from radar, including the following: Performance, including: <ul style="list-style-type: none"> <li>1. factors affecting performance and accuracy</li> <li>2. setting up and maintaining displays</li> <li>3. detection of misrepresentation of information, false echoes, sea return, etc., racons and SARTs</li> </ul> </li> </ul>

### 3.10 Navigation Safety, Level 1 (NS 1)

The applicant for a certificate of competency for which the qualification “Navigation Safety, Level 1 (NS 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program, or
2. Obtain a 70 percent grade or more on the TC examination on Navigation Safety, Level 1 (NS 1).

The method chosen to demonstrate that the applicant possess the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/1</b> - Maintain a safe navigational watch	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code as it pertains to <i>watchkeeping</i> specific to the following elements: <ul style="list-style-type: none"> <li>- Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, as amended (including Canadian modifications)</li> <li>- Thorough knowledge of the Principles to be observed in keeping a navigational watch</li> <li>-</li> </ul>

### 3.11 Navigation Safety, Level 2 (NS 2)

The applicant for a certificate of competency for which the qualification “Navigation Safety, Level 2 (NS 2)” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on Navigation Safety, Level 2 (NS 2).

The method required to demonstrate that the applicant possess the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that

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he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/2</b> Establish watchkeeping arrangements and procedures	The applicant must have acquired the knowledge, understanding and proficiency necessary to undertake the tasks, duties and responsibilities listed in column 2 of table A-II/2 of the STCW Code.

### 3.12 Meteorology, Level 1 (MET 1)

The applicant for a certificate of competency for which the qualification “Meteorology, Level 1 (MET 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Meteorology, Level 1, or
3. Obtain a 70 percent grade or more on the TC examination on Meteorology, Level 1 (MET 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/3 of the STCW Code and table A-II/2 and A-II/3 of the HTW 7/WP.7, as associated with that competence; and use of radar and ARPA to maintain safety of navigation.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Tables A-II/1 and A-II/3 of the STCW Code</b> <b>Tables A-II/2 and A-II/3 of the HTW 7/WP.7</b> Plan and conduct a passage and determine position	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 and A-II/3 of the STCW Code and table A-II/2 and A-II/3 of the HTW 7/WP.7 as it pertains to <i>Meteorology</i> .

### 3.13 Meteorology, Level 2 (MET 2)

The applicant for a certificate of competency for which the qualification “Meteorology, Level 2 (MET 2)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program offering the Meteorology, Level 2 (MET 2) as an optional subject of the cadet program,
2. Successful completion of an approved training course in Meteorology, Level 2, or
3. Obtain a 70 percent grade or more on the TC examination on Meteorology, Level 2 (MET 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/2 of the STCW Code and table A-II/2 of the HTW 7/WP.7, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<b>Table A-II/1 of the STCW Code</b> Plan and conduct a passage and determine position	The applicant must have acquired the knowledge, understanding and proficiency listed in:  Column 2 of table <b>A-II/1</b> of the STCW Code as it pertains to <i>meteorology</i>
<b>Table A-II/2 of the STCW Code</b>	



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Forecast weather and oceanographic conditions	<p>Column 2 of table <b>A-II/2</b> of the STCW Code as it pertains to:</p> <ul style="list-style-type: none"> <li>- Ability to understand and interpret a synoptic chart and to forecast area weather, taking into account local weather conditions and information received by weather fax</li> <li>- Knowledge of the characteristics of various weather systems, including tropical revolving storms and avoidance of storm centres and the dangerous quadrants</li> <li>- Knowledge of ocean current systems</li> <li>- Use all appropriate nautical publications on tides and currents</li> </ul> <p>Column 2 of table <b>A-II/1</b> of the HTW 7/WP.7 as it pertains to <i>Meteorology and oceanography</i> specific to the following elements:</p> <ul style="list-style-type: none"> <li>- knowledge of Meteorological instruments and their application</li> <li>- ability to apply meteorological information available</li> <li>- knowledge of characteristics of various weather systems, including, at the discretion of the Party, tropical revolving storms and avoidance of storm centres and the dangerous quadrants</li> <li>- knowledge of weather conditions, such as fog, [icebergs, ice accretion and freezing spray] liable to endanger the vessel</li> <li>- ability to use appropriate navigational publications on tides and currents</li> <li>- ability to calculate times and heights of high and low water and estimate the direction and rate of tidal streams</li> </ul>
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**Table A-II/1 of the HTW 7/WP.7**

Forecast weather and oceanographic conditions

**3.14 Ship Management, Level 1 (SM 1)**

The applicant for a certificate of competency for which the qualification “Ship Management, Level 1 (SM 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Management, Level 1, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Management, Level 1 (SM 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/3 of the HTW 7/WP.7, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1 of the HTW 7/WP.7</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and the protection of the marine environment	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the HTW 7/WP.7.

### 3.15 Ship Management, Level 2 (SM 2)

The applicant for a certificate of competency for which the qualification “Ship Management, Level 2 (SM 2)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Management, Level 2, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Management, Level 2 (SM 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Monitor compliance with legislative requirements	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 1 of this table:</p> <ul style="list-style-type: none"> <li>- Knowledge of the <i>Canada Shipping Act, 2001, Marine Personnel Regulations, 2023, Pilotage Act and Canada Labour Code, Part II</i></li> <li>- Knowledge of Ship’s business</li> <li>- Knowledge of Canadian marine regulations</li> <li>- Knowledge of master’s responsibilities in different events</li> </ul>

### 3.16 Ship Management, Level 3 (SM 3)

The applicant for a certificate of competency for which the qualification “Ship Management, Level 3 (SM 3)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program offering the Ship Management, Level 3 (SM 3) as an optional subject of the cadet program,
2. Successful completion of an approved training course in Ship Management, Level 3, or
3. Obtain a 70 percent grade or more on the TC examination on Ship Management, Level 3 (SM 3).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and the protection of the marine environment.	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code.

### 3.17 Ship Management, Level 4 (SM 4)

The applicant for a certificate of competency for which the qualification “Ship Management, Level 4 (SM 4)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Management, Level 4, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Management, Level 4 (SM 4).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/2</b> Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and the protection of the marine environment.	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.

### 3.18 Ship Construction and Stability, Level 1 (SCS 1)

The applicant for a certificate of competency for which the qualification “Ship Construction and Stability, Level 1 (SCS 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Construction and Stability, Level 1, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Construction and Stability, Level 1 (SCS 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/2 and A-II/4 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Maintain seaworthiness of the ship	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 and A-II/4 of the STCW Code.

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### 3.19 Ship Construction and Stability, Level 2 (SCS 2)

The applicant for a certificate of competency for which the qualification “Ship Construction and Stability, Level 2 (SCS 2)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Construction and Stability, Level 2, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Construction and Stability, Level 2 (SCS 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Control trim and stability	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 and A-II/3 of the STCW Code.

### 3.20 Ship Construction and Stability, Level 3 (SCS 3)

The applicant for a certificate of competency for which the qualification “Ship Construction and Stability, Level 3 (SCS 3)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Construction and Stability, Level 3, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Construction and Stability, Level 3 (SCS 3).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Maintain seaworthiness of the ship	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/3 of the STCW Code.

### 3.21 Ship Construction and Stability, Level 4 (SCS 4)

The applicant for a certificate of competency for which the qualification “Ship Construction and Stability, Level 4 (SCS 4)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Ship Construction and Stability, Level 4, or
3. Obtain a 70 percent grade or more on the TC examination on Ship Construction and Stability, Level 4 (SCS 4).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 A-II/2 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<p>The applicant must be competent to undertake the following tasks, duties and responsibilities listed in column 1 of table A-II/1 and A-II/2 of the STCW Code:</p> <p><b>Table A-II/1, column 1</b></p> <ul style="list-style-type: none"> <li>- Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks</li> <li>- Maintain seaworthiness of the ship</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 and A-II/2 of the STCW Code.</p>
<p><b>Table A-II/2, column 1</b></p> <ul style="list-style-type: none"> <li>- Assess reported defects and damage to cargo spaces, hatch covers and ballast tanks and take appropriate action</li> <li>- Control trim, stability and stress</li> </ul>	

### 3.22 Ship Construction and Stability, Level 5 (SCS 5)

The applicant for a certificate of competency for which the qualification “Ship Construction and Stability, Level 5 (SCS 5)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Ship Construction and Stability, Level 5, or
2. Obtain a 70 percent grade or more on the TC examination on Ship Construction and Stability, Level 5 (SCS 5).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<p>The applicant must be competent to undertake the following tasks, duties and responsibilities listed in column 1 of table A-II/2 of the STCW Code:</p>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.</p>
<p>Assess reported defects and damage to cargo spaces, hatch covers and ballast tanks and take appropriate action</p>	
<p>Control trim, stability and stress</p>	

### 3.23 Cargo, Level 1 (CG 1)

The applicant for a certificate of competency for which the qualification “Cargo, Level 1 (CG 1)” is required to demonstrate that they meet that requirement by one of the following methods:

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1. Successful completion of an approved training course in Cargo, Level 1, or
2. Obtain a 70 percent grade or more on the TC examination on Cargo, Level 1 (CG 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Monitor the loading, stowage, securing and unloading of cargoes and their care during the voyage	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/3 of the STCW Code.

### 3.24 Cargo, Level 2 (CG 2)

The applicant for a certificate of competency for which the qualification “Cargo, Level 2 (CG 2)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Cargo, Level 2, or
3. Obtain a 70 percent grade or more on the TC examination on Cargo, Level 2 (CG 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1</b> Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes  <b>Table A-II/2</b> - Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes. - Carriage of dangerous goods.	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 and A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code.

### 3.25 Cargo, Level 3 (CG 3)

The applicant for a certificate of competency for which the qualification “Cargo, Level 3 (CG 3)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in Cargo, Level 3, or
3. Obtain a 70 percent grade or more on the TC examination on Cargo, Level 3 (CG 3).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/2 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1</b> Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes  <b>Table A-II/2</b> - Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes - Carriage of dangerous goods	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 and A-II/2 of the STCW Code.

### 3.26 Engineering Knowledge, Level 1 (EK 1)

The applicant for a certificate of competency for which the qualification “Engineering Knowledge, Level 1 (EK 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Engineering Knowledge, Level 1, or
2. Obtain a 70 percent grade or more on the TC examination on Engineering Knowledge, Level 1 (EK 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Operate remote controls of propulsion plant and engineering systems and services	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Convention.

### 3.27 Engineering Knowledge, Level 2 (EK 2)

The applicant for a certificate of competency for which the qualification “Engineering Knowledge, Level 2 (EK 2)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program offering the Engineering Knowledge, Level 2 (EK 2) as an optional subject of the cadet program,
2. Successful completion of an approved training course in Engineering Knowledge, Level 2, or
3. Obtain a 70 percent grade or more on the TC examination on Engineering Knowledge, Level 2 (EK 2).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Operate remote controls of propulsion plant and engineering systems and services	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.

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### 3.28 General Ship Knowledge, Level 1 (GSK 1)

The applicant for a certificate of competency for which the qualification “General Ship Knowledge, Level 1 (GSK 1)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in General Ship Knowledge, Level 1 (GSK 1), or
2. Obtain a 70 percent grade or more on the TC examination on General Ship Knowledge, Level 1 (GSK 1).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/3 of the HTW 7/WP.7, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/3</b> - Fishing vessel power plants - Catch handling and stowage - Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and the protection of the marine environment	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/3 of the HTW 7/WP.7.

### 3.29 General Ship Knowledge, Level 3 (GSK 3)

The applicant for a certificate of competency for which the qualification “General Ship Knowledge, Level 3 (GSK 3)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program,
2. Successful completion of an approved training course in General Ship Knowledge, Level 3 (GSK 3), or
3. Obtain a 70 percent grade or more on the TC examination on General Ship Knowledge, Level 3 (GSK 3).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1</b> - Ensure compliance with pollution prevention requirements - Monitor compliance with legislative requirements  <b>Table A-II/2</b> Maintain safety and security of the ship’s crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems	<b>Table A-II/1</b> The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of the following table of the STCW Code:  <b>Table A-II/2, specific to the following element:</b> Thorough knowledge of life-saving appliance regulations (International Convention for the Safety of Life at Sea)



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### 3.30 General Ship Knowledge, Level 3D (GSK 3D)

The applicant for a certificate of competency for which the qualification “General Ship Knowledge, Level 3D (GSK 3D)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in General Ship Knowledge, Level 3D (GSK 3D), or
2. Obtain a 70 percent grade or more on the TC examination on General Ship Knowledge, Level 3D (GSK 3D).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<ul style="list-style-type: none"> <li>- Ensure compliance with pollution-prevention requirements</li> <li>- Monitor compliance with legislative requirements</li> </ul>	<p>The applicant must have acquired the following knowledge, understanding and proficiencies:</p> <ul style="list-style-type: none"> <li>- Knowledge of the precautions to be taken and equipment used to prevent pollution of the marine environment</li> <li>- Knowledge of the pollution prevention requirements as contained in the Canadian Regulations</li> <li>- Knowledge of the <i>Canada Shipping Act, 2001</i></li> <li>- Knowledge of Canadian Regulations and vessels documentation</li> <li>- Knowledge of management of personnel</li> <li>- Knowledge of the <i>Maritime Occupational Health and Safety Regulations</i>, and Part II of the <i>Canada Labour Code</i></li> </ul>

### 3.31 Simulated Electronic Navigation – Limited (SEN-L)

The applicant for a certificate of competency for which the qualification “Simulated Electronic Navigation – Limited (SEN-L)” is required to demonstrate that they meet that requirement by successfully completing an approved training course in Simulated Electronic Navigation – Limited.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
	<p>The applicant must have acquired the following knowledge, understanding and proficiencies:</p>
Operate navigational equipment on a seasonal vessel in sheltered waters	<p>General knowledge of:</p> <ul style="list-style-type: none"> <li>- RADAR basic functions, operating procedures, errors and radar navigation and collision avoidance</li> <li>- Electronic systems for navigation and watchkeeping such as: <ul style="list-style-type: none"> <li>- GPS and DGPS</li> <li>- Echo Sounder</li> <li>- AIS</li> </ul> </li> <li>- Marine compasses and compass Errors</li> <li>- Vessel Manoeuvres</li> </ul>

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	<ul style="list-style-type: none"> <li>- Electronic Charting Systems (ECS) advantages and disadvantages, errors and use for passage planning</li> <li>- Use of smart phones and tablets for passage Planning</li> </ul>
Maintain watchkeeping standards	<p>General knowledge of:</p> <ul style="list-style-type: none"> <li>- Principles of watchkeeping and watchkeeping standards</li> <li>- Company and Master's orders and bridge records</li> <li>- Resource management, communications, allocation of resources fatigue and stress</li> <li>- Situational Awareness and leadership</li> <li>- Procedures related to various vessel emergencies</li> </ul>

### 3.32 Simulated Electronic Navigation – Domestic (SEN-D)

The applicant for a certificate of competency for which the qualification “Simulated Electronic Navigation – Domestic (SEN-D)” is required to demonstrate that they meet that requirement by successfully completing an approved training course in Simulated Electronic Navigation – Domestic.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
	The applicant must have acquired the following knowledge, understanding and proficiencies:
Operate electronic navigation systems and instrument typically found onboard coastal vessels	<p>General knowledge of:</p> <ul style="list-style-type: none"> <li>- RADAR basic functions, symbols, controls, operating procedures, errors and radar navigation and collision avoidance</li> <li>- RADAR plotting for collision avoidance</li> <li>- Electronic systems for navigation and watchkeeping such as: <ul style="list-style-type: none"> <li>- E-Loran</li> <li>- GPS and DGPS</li> <li>- Echo Sounder</li> <li>- AIS</li> </ul> </li> <li>- Marine compasses and compass Errors</li> <li>- Vessel Manoeuvres</li> <li>- Electronic Charting Systems (ECS) advantages and disadvantages, errors and use for passage planning</li> <li>- Use of smart phones and tablets for passage Planning</li> </ul>
Maintain watchkeeping standards	<p>General knowledge of:</p> <ul style="list-style-type: none"> <li>- Principles of watchkeeping and watchkeeping standards</li> <li>- Company and Master's orders and bridge records</li> <li>- Resource management, communications, allocation of resources fatigue and stress</li> <li>- Situational Awareness and leadership</li> <li>- Procedures related to various vessel emergencies</li> </ul>

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### 3.33 Simulated Electronic Navigation – Operational Level (SEN-O)

The applicant for a certificate of competency for which the qualification “Simulated Electronic Navigation – Operational Level (SEN-O)” is required to demonstrate successful completion of an approved training course in Simulated Electronic Navigation – Operational Level.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1</b> Plan and conduct a passage and determine position	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code as it pertains to: <ul style="list-style-type: none"> <li>- <i>Terrestrial and coastal navigation</i></li> <li>- <i>Electronic systems of position fixing and navigation</i></li> <li>- <i>Echo-sounders</i></li> <li>- <i>Compass – magnetic and gyro</i></li> <li>- <i>Steering control system</i></li> </ul>
<ul style="list-style-type: none"> <li>- Maintain a safe navigational watch</li> <li>- Use of radar and ARPA to maintain safety of navigation</li> <li>- Respond to a distress signal at sea</li> <li>- Use the IMO Standard Marine Communication Phrases and use English in written and oral form</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code.

### 3.34 Simulated Electronic Navigation – Management Level (SEN-M)

The applicant for a certificate of competency for which the qualification “Simulated Electronic Navigation – Management Level (SEN-M)” is required to demonstrate successful completion of an approved training course in Simulated Electronic Navigation – Management Level.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/2</b> <ul style="list-style-type: none"> <li>- Plan a voyage and conduct navigation</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.
<ul style="list-style-type: none"> <li>- Determine position and the accuracy of resultant position fix by any means</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code as it pertains to:

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	Position determination in all conditions: <ul style="list-style-type: none"> <li>- by terrestrial observations, including the ability to use appropriate charts, notices to mariners and other publications to assess the accuracy of the resulting position fix</li> <li>- using modern electronic navigational aids, with specific knowledge of their operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing</li> </ul>
<ul style="list-style-type: none"> <li>- Determine and allow for compass errors</li> <li>- Coordinate search and rescue operations</li> <li>- Establish watchkeeping arrangements and procedures</li> <li>- Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision making</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.

### 3.35 Simulated Electronic Navigation – Fishing (SEN-F)

The applicant for a certificate of competency for which the qualification “Simulated Electronic Navigation – Fishing (SEN-F)” is required to demonstrate successful completion of an approved training course in Simulated Electronic Navigation – Fishing.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/2, A-II/3 and A-II/4 of the HTW 7/WP.7, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/4 - HTW 7/WP.7</b> <ul style="list-style-type: none"> <li>- Maintain a safe navigational watch</li> <li>- Use of radar to maintain safety of navigation</li> <li>- Use of radar and ARPA to maintain safety of navigation</li> <li>- Use of ECDIS to maintain safety of navigation</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 and A-II/4 of the HTW 7/WP.7.

### 3.36 Leadership And Teamwork (LTW)

The applicant for a certificate of competency for which the qualification “Leadership and Teamwork (LTW)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program, or
2. Successful completion of an approved training course in Leadership and Teamwork (LTW).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1</b> Application of leadership and teamworking skills	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code.

### 3.37 Leadership And Managerial Skill (LMS)

The applicant for a certificate of competency for which the qualification “Leadership and Managerial Skills (LMS)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program, or
2. Successful completion of an approved training course in Leadership and Managerial Skills (LMS).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/2</b> Use of leadership and managerial skill	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.

### 3.38 Electronic Chart Display and Information Systems (ECDIS)

The applicant for a certificate of competency for which the qualification “Electronic Chart Display and Information Systems (ECDIS)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved deck cadet program, or
2. Successful completion of an approved training course in Electronic Chart Display and Information Systems (ECDIS).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 and A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/1 of the STCW Code:</b>  Use of ECDIS to maintain the safety of navigation	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code.
<b>Table A-II/2 of the STCW Code:</b>  Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code.

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**3.39 General Seamanship for: MM-Oral, MNC-Oral, M3000-Oral, M3000NC-Oral, CM-Oral, CMNC-Oral, M500-Oral and M3000D-Oral:**

- Master Mariner (MM-Oral)
- Master, Near Coastal (MNC-Oral)
- Master 3000 Gross Tonnage (M3000-Oral)
- Master 3000 Gross Tonnage, Near Coastal (M3000NC-Oral)
- Chief Mate (CM-Oral)
- Chief Mate, Near Coastal (CMNC-Oral)
- Master 500 Gross Tonnage (M500-Oral)
- Master 3 000 Gross Tonnage, Domestic (M3000D-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship (MM-Oral), (MNC-Oral), (M3000-Oral), (M3000NC-Oral), (CM-Oral), (CMNC-Oral), (M500-Oral) or (M3000D-Oral), as applicable.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-II/2</b> - Plan a voyage and conduct navigation - Coordinate search and rescue operations - Establish watchkeeping arrangements and procedures - Respond to navigational emergencies - Manoeuvre and handle a ship in all conditions - Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes - Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and the protection of the marine environment - Maintain safety and security of the ship’s crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems - Develop emergency and damage control plans and handle emergency situations	- The applicant for a <b>Master Mariner</b> or <b>Chief Mate</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code. - The applicant for a <b>Master, Near Coastal</b> or <b>Chief Mate Near Coastal</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the STCW Code, as it applies to a vessel making a near coastal voyage. - The applicant for a <b>Master 3000 Gross Tonnage</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code as it applies to a vessel of 3000 gross tonnage. - The applicant for a <b>Master 3000 Gross Tonnage, Near Coastal</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code as it applies to a vessel of 3000 gross tonnage making a near coastal voyage - The applicant for a <b>Master 500 Gross Tonnage</b> must have acquired the knowledge, understanding and proficiency

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	<p>listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code and paragraph 2 of Regulation II/3 of the STCW as it applies to a vessel of 3000 gross tonnage</p> <p>- The applicant for a <b>Master 3 000 Gross Tonnage, Domestic</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code as it applies to a vessel of 3000 gross tonnage making a Domestic Voyage.</p>
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#### 3.40 General Seamanship for M500NC-Oral and M500D-Oral:

- Master 500 Gross Tonnage, Near Coastal (M500NC-Oral)
- Master 500 Gross Tonnage, Domestic (M500D-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship (M500NC-Oral) or (M500D-Oral), as applicable.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
The applicant must be competent to undertake any tasks, duties and responsibilities listed in column 1 of table A-II/3 of the STCW Code.	<p>- The applicant for a <b>Master 500 Gross Tonnage, Near Coastal</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/3 of the STCW Code.</p> <p>- The applicant <b>Master 500 Gross Tonnage, Domestic</b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/3 of the STCW Code as it applies to a vessel making a Domestic voyage.</p>

#### 3.41 General Seamanship for WKM-Oral and WKMNC-Oral:

- Watchkeeping Mate (WKM-Oral)
- Watchkeeping Mate, Near Coastal (WKMNC-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship (WKM-Oral) or (WKMNC-Oral), as applicable.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/1 A-II/2 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
The applicant must be competent to undertake any tasks, duties and responsibilities listed in column 1 of table A-II/1 of the STCW Code.	<ul style="list-style-type: none"> <li>- The applicant for a <i>Watchkeeping Mate</i> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code.</li> <li>- The applicant for a <i>Watchkeeping Mate, Near Coastal</i> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the STCW Code, as it applies to a vessel making a near coastal voyage.</li> </ul>
The applicant must be competent to undertake any tasks, duties and responsibilities listed in column 1 of table A-II/2 of the STCW Code.	<ul style="list-style-type: none"> <li>- The applicant for a <i>Watchkeeping Mate</i> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code as it applies to a vessel of 3000 gross tonnage.</li> <li>- The applicant for a <i>Watchkeeping Mate, Near Coastal</i> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 taking into account paragraph 5 of section A-II/2 of the STCW Code as it applies to a vessel of 3000 gross tonnage making a near coastal voyage.</li> </ul>

#### 3.42 General Seamanship for M24mD-Oral, CM500D-Oral and CM24mD-Oral:

- Master, Vessel of Less Than 24 Metres in Length, Domestic (M24mD-Oral)
- Chief Mate 500 Gross Tonnage, Domestic (CM500D-Oral)
- Chief Mate, Vessel of Less Than 24 Metres, Domestic (CM24mD-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship (M24mD-Oral), (CM500D-Oral) or (CM24mD-Oral), as applicable.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Recognize life saving and distress signals and respond to a distress at sea	<p>The applicant must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- knowledge of the meaning of lifesaving and distress signals</li> <li>- proper actions to be taken when recognizing lifesaving and distress signals</li> </ul> <p>The applicant for (M24mD-Oral) or (CM500D-Oral) must also have acquired the following knowledge, understanding and proficiency:</p>



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	<ul style="list-style-type: none"> <li>- Knowledge and understanding of the content and application of the IMO <i>International Aeronautical and Maritime Search and Rescue manual (IAMSAR)</i>.</li> </ul>
Plan and conduct safe navigation	Ability to undertake voyage planning, taking into consideration the requirements set out in section A-VIII/2, Part 2 of the STCW Code.
Forecast marine weather and apply weather routing	<ul style="list-style-type: none"> <li>- Knowledge of the importance of weather forecasts;</li> <li>- Ability to consult weather forecasts;</li> <li>- Take into account weather forecast when making voyage planning;</li> <li>- Take into account actual and forecasted weather before undertaking a voyage and for decision making during the voyage;</li> <li>- Awareness of Environment Canada weather warnings and how they are transmitted.</li> </ul>
Maintain a Safe Navigational Watch	<ul style="list-style-type: none"> <li>- Principles to be observed in keeping a navigational watch as set out in the STCW Code, section A-VIII/2, including watchkeeping at anchor and in port;</li> <li>- A thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at sea, 1972 with Canadian Modifications 1983;</li> <li>- Knowledge of the Canadian System of buoyage; ability to determine magnetic compass error and care of magnetic compass.</li> </ul>
Manoeuvre the ship and use of mooring lines	<ul style="list-style-type: none"> <li>- Basic knowledge of manoeuvring and handling a small vessel;</li> <li>- The pivoting point and effects when the propulsion system is used in the ahead and astern direction;</li> <li>- Practical manoeuvres for berthing, unberthing, when navigating and for anchoring;</li> <li>- effect of wind, tide and current on manoeuvres</li> <li>- Proper procedures for anchoring and mooring</li> <li>- Names, types, use and care of mooring lines and their characteristics;</li> <li>- Making fast on-shore bollards being used by another ship;</li> <li>- Use of moorings on the bight and doubling up;</li> <li>- Preparation to be made for berthing.</li> </ul> <p>The applicant for <b>(M24mD-Oral)</b> or <b>(CM500D-Oral)</b> must also have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- Towing operations</li> </ul>
Respond to emergencies	<ul style="list-style-type: none"> <li>- Contingency plans for response to emergencies</li> <li>- Knowledge and understanding of the precautions for the protection and safety of passengers in emergency situations</li> </ul>
Ensure compliance with pollution-prevention requirements	<ul style="list-style-type: none"> <li>- Knowledge of the precautions to be taken during fueling;</li> </ul>

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	<ul style="list-style-type: none"> <li>- Knowledge of the statutory requirements to report pollution incidents;</li> <li>- Precautions to be taken to prevent pollution of the marine environment by oil, garbage or other pollutant;</li> <li>- Take appropriate action in response to pollution incidents onboard and found at sea.</li> </ul>
Maintain seaworthiness	<ul style="list-style-type: none"> <li>- Understand the fundamentals of watertight integrity;</li> <li>- Precautions to be taken before the onset of heavy weather such as closing and securing of watertight hatches, manholes, doors and portholes, lowering and securing weights onboard, ensuring that freeing arrangements are functional, etc;</li> <li>- Necessary monitoring on a vessel caught in heavy weather, such as water detection in compartments;</li> <li>- Actions to be taken in case of water ingress or vessel becoming disabled;</li> <li>- Practical considerations of boat handling in heavy weather;</li> <li>- How to prevent ice accretion;</li> <li>- Actions to be taken if ice starts to accumulate on a vessel;</li> <li>- Working knowledge of stability and damaged stability data supplied to small vessels;</li> <li>- Effect on stability of passengers gathering on one side of the vessel;</li> <li>- Understanding of ship's plans and specifications;</li> <li>- an appreciation of the meaning and characteristics of stiff and tender ships;</li> <li>- effects of reduction in freeboard on stability and seaworthiness.</li> </ul>
Monitor compliance with legislative requirements	<ul style="list-style-type: none"> <li>- Responsibilities and duties of a chief mate, including when joining a vessel;</li> <li>- Knowledge of master's responsibilities under part 2 and 3 of the <i>Marine Personnel Regulations, 2023</i>;</li> <li>- Basic knowledge of the regulations concerning life-saving and fire-fighting appliances;</li> <li>- Precautions and requirements for safe embarkation of passengers on a vessel.</li> </ul> <p>The applicant for <b>(M24mD-Oral)</b> or <b>(CM500D-Oral)</b> must also have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- Appreciate master's overall responsibilities;</li> <li>- Duties and responsibilities of the master of a small vessel as required by the Canada Shipping Act, 2001;</li> <li>- Master's duties on taking over and relinquishing command;</li> <li>- Preparation of the vessel for inspection and surveys;</li> <li>- Vessels required to have articles of agreements and an official log book;</li> <li>- Initial and subsequent reports to be made in case of a marine occurrence.</li> </ul>

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<p>The applicant for (M24mD-Oral) or (CM500D-Oral) must also be competent to undertake the following tasks, duties and responsibilities:</p> <p>Operate small ship plants</p>	<p>The applicant for (M24mD-Oral) or (CM500D-Oral) must also have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- Basic knowledge of the operation of small ship power plants and auxiliaries, such as the engine, the propulsion system, the fuel, lubrication and cooling systems of the engine, electrical systems, steering gear, bilge pumps, quick shut-off valves, fire dampers;</li> <li>- Basic knowledge of engine surveillance systems and measures to be taken in case of alarm of failure.</li> </ul>
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### 3.43 General Seamanship for FMUW-Oral and FMLW-Oral:

- Fishing Master, Unlimited Waters (FMUW-Oral)
- Fishing Master, Limited Waters (FMLW-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship (FMUW-Oral) or (FMLW-Oral), as applicable.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/1 of the HTW 7/WP.7, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
The applicant must be competent to undertake any tasks, duties and responsibilities listed in column 1 of table A-II/1 or A-II/3 of the HTW 7/WP.7 as the case may be.	<p>The applicant for a <b><i>Fishing Master, Unlimited Waters</i></b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/1 of the HTW 7/WP.7.</p> <p>The applicant for a <b><i>Fishing Master, Limited Waters</i></b> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/3 of the HTW 7/WP.7.</p>

### 3.44 General Seamanship for FOUW-Oral and FOLW-Oral:

- Fishing Officer, Unlimited Waters (FOUW-Oral)
- Fishing Officer, Limited Waters (FOLW-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on General Seamanship (FOUW-Oral) or (FOLW-Oral), as applicable.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-II/2 and A-II/4 of the HTW 7/WP.7, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, skill and understanding</b>
The applicant must be competent to undertake any tasks, duties and responsibilities listed in column 1 of table A-II/2 or A-II/4 of the HTW 7/WP.7 as the case may be.	<p>The applicant for a <i>Fishing Officer, Unlimited Waters</i> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/2 of the HTW 7/WP.7.</p> <p>The applicant for a <i>Fishing Officer, Limited Waters</i> certificate of competency must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-II/4 of the HTW 7/WP.7.</p>

### 3.45 General Seamanship for Fishing Master, 24 Metres, Limited Waters (FM24mLW-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship for Fishing Master, 24 Metres, Limited Waters (FM24mLW-Oral)” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship for Fishing Master, 24 Metres, Limited Waters (FM24mLW-Oral).

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
The applicant must be competent to undertake the following tasks, duties and responsibilities:  Recognize life saving and distress signals and proper actions to be taken	<p>The applicant must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>- Knowledge of the meaning of lifesaving and distress signals</li> <li>- Proper actions to be done when recognizing lifesaving and distress signals</li> </ul>
Manoeuvre the vessel	<ul style="list-style-type: none"> <li>- Basic knowledge of manoeuvring and handling a fishing vessel for berthing, unberthing, during fishing operations, including the effect of wind, tide and current.</li> </ul>
Forecast marine weather	<ul style="list-style-type: none"> <li>- Knowledge of the importance of weather forecasts and ability to consult weather forecasts</li> <li>- The use of weather forecast to plan a voyage or to interrupt fishing activities and return to home port or seek shelter</li> <li>- Awareness of Environment Canada weather warnings and how they are transmitted</li> </ul>
Ensure safety	<ul style="list-style-type: none"> <li>- Practical knowledge of safe working practices aboard fishing vessels</li> <li>- knowledge of the Code of Safe Working Practices as it applies to fishing vessels</li> <li>- awareness of the content and practices described in the Small Fishing Vessel Safety Manual (TP 10038)</li> </ul>

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Maintain seaworthiness	<ul style="list-style-type: none"> <li>- Precautions to be taken and monitoring required to ensure watertight integrity in normal operations or before the onset of heavy weather</li> <li>- Actions to be taken in case of water ingress or vessel becoming disabled</li> <li>- Practical considerations of boat handling in heavy weather</li> <li>- How to prevent ice accretion and actions to be taken if ice starts to accumulate on a vessel.</li> </ul>
Maintain stability	<ul style="list-style-type: none"> <li>- Practical use of stability data supplied to fishing vessels</li> <li>- Understanding of ship's plans and specifications</li> <li>- Knowledge of the effect of adding, removing, transferring, raising, lowering or suspending weights, the free surface effect in tanks</li> <li>- The change of stability during the voyage</li> <li>- Understanding the effects of reduction in freeboard and overloading on stability and seaworthiness.</li> <li>- The dangerous effect of external forces from fishing gear and other gear when catching obstructions on the sea bed or when gear is acting on a high point in the vessel</li> <li>- The use of division bulkheads in fish holds</li> <li>- Effect of carrying fish in bulk</li> <li>- The dangerous effects of carrying fish on deck</li> <li>- Effect of water on deck including free surface effect</li> <li>- The effect of ice accretion on stability</li> <li>- Understanding the use, effect and risks of anti-rolling devices such as paravane stabilizers and anti-rolling tanks.</li> </ul>
Respond to emergencies	<ul style="list-style-type: none"> <li>- Master's responsibilities in emergencies such as fire, collision, flooding, grounding, man overboard, vessel's evacuation, etc</li> <li>- rescuing persons and assisting vessel &amp; aircraft in distress</li> </ul>
Prevent pollution	<ul style="list-style-type: none"> <li>- Knowledge of the precautions to be taken during fuelling</li> <li>- Knowledge of the statutory requirements to report pollution incidents</li> <li>- Precautions to be taken to prevent pollution of the marine environment by oil, garbage or other pollutant</li> <li>- Take appropriate action in response to pollution incidents onboard and found at sea.</li> </ul>
Ensure compliance with legislative requirements	<ul style="list-style-type: none"> <li>- Appreciate master's overall responsibilities</li> <li>- Duties and responsibilities of the master of a small vessel as required by the <i>Canada Shipping Act, 2001</i>.</li> </ul>
Maintain a safe navigational watch	<ul style="list-style-type: none"> <li>- OOW responsibilities, duties and related tasks</li> <li>- Principles to be observed in keeping a navigational watch</li> <li>- Knowledge of the <i>Collision regulations</i></li> </ul>

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### 3.46 General Seamanship and stability for Fishing Master, 14 Metres, Limited Waters (FM14mLW-Oral)

The applicant for a certificate of competency for which the qualification “General Seamanship for Fishing Master, 14 Metres, Limited Waters (FM14mLW-Oral)” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on the TC examination on General Seamanship for Fishing Master, 14 Metres, Limited Waters (FM14mLW-Oral).

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Recognize life saving and distress signals and proper actions to be taken	The applicant must have acquired the following knowledge, understanding and proficiency:  <ul style="list-style-type: none"> <li>- knowledge of the meaning of lifesaving and distress signals</li> <li>- proper actions to be done when recognizing lifesaving and distress signals</li> </ul>
Maintain a safe navigational watch	<ul style="list-style-type: none"> <li>- Principles to be observed in keeping a navigational watch.</li> <li>- When to call the master.</li> <li>- Demonstrate a practical knowledge of the Collision Regulations and Canadian Buoyage System.</li> </ul>
Prevent pollution	Knowledge of applicable regulatory requirements, who to contact in case of release of pollutants and possible consequences - i.e. responsibilities.
Maintain seaworthiness	Practical understanding of the basic types of small fishing vessel construction including common terminology
Maintain stability	Practical appreciation of the principles of fishing vessel stability
Manoeuvre the vessel and use practical seamanship	<ul style="list-style-type: none"> <li>- Practical knowledge necessary to manoeuvre the vessel</li> <li>- Ability to perform duties required of a or master of a fishing vessel of less than 14 metres or of a mate on a fishing vessel of less than 24 metres in length overall</li> </ul>
Protect health and safety of persons onboard and maintain safe working practices	Knowledge of the requirements as prescribed in regulations affecting fishing vessels of less than 24 metres in length overall <ul style="list-style-type: none"> <li>• Safe Working Practice Regs.</li> <li>• MOHS – Canada labour Code</li> </ul>
Forecast marine weather	General knowledge of weather systems, forecasting and sea states, ice charts
Respond to emergencies	Knowledge of proper action to take in the case of an emergency

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### 3.47 Domestic Certificates of Competency (Limited)

The applicant for a certificate of competency for which the qualification “Domestic Certificate of Competency (Limited)” is required to demonstrate that they meet that requirement by obtaining a 70 percent grade or more on one of the following TC examinations:

- *General Ship Knowledge Master, Limited – 18 metres in length or more (CLW  $\geq$  18 m),*
- *General Ship Knowledge Master, Limited – less than 18 metres in length (CLW  $<$  18 m),*
- *General Seamanship Master, Limited – 18 metres in length or more (CLO  $\geq$  18 m),*
- *General Seamanship Master, Limited – less than 18 metres in length (CLO  $<$  18 m),*
- *General Ship Knowledge Chief Mate, Limited – 18 metres in length or more (1MLW  $\geq$  18 m),*
- *General Ship Knowledge Chief Mate, Limited – less than 18 metres in length (1MLW  $<$  18 m),*
- *General Seamanship Chief Mate, Limited – 18 metres in length or more (1MLO  $\geq$  18 m), or*
- *General Seamanship Chief Mate, Limited – less than 18 metres in length (1MLO  $<$  18 m).*

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

Item	Competence	Knowledge, understanding and proficiency
1.	Demonstrate a good knowledge of the area for which the certificate will be valid	<ul style="list-style-type: none"> <li>– Ability to demonstrate that intended route is safe</li> <li>– Knowledge of the places where the depth of water is sufficient for the vessel</li> <li>– Knowledge of sea conditions that may be met in the area of operation and actions to be taken if conditions become too severe</li> <li>– Knowledge of local currents and the effect of tides, if applicable, for the area of operation</li> <li>– Knowledge of the importance of weather forecasts and ability to consult them</li> <li>– Knowledge of the geographical limits of sheltered waters and near coastal waters</li> </ul>
2.	Manoeuvre the vessel	<ul style="list-style-type: none"> <li>– Capacity to manoeuvre the vessel for berthing, departure from the dock, navigation and anchoring</li> <li>– Manoeuvre to recuperate a person overboard</li> <li>– As applicable, the effect of propellers, rudders, jets and outboard engines when moving ahead and astern and when manoeuvring</li> <li>– Effect of winds and currents when manoeuvring</li> </ul>
3.	Operate the propulsion system and all other systems and devices on the vessel	<ul style="list-style-type: none"> <li>– Knowledge of the principle of operation of the engine and the propulsion system</li> <li>– Knowledge of the use of the propulsion system</li> <li>– Knowledge of the vessel arrangement and of the functioning of all the systems and devices on board, such as the fuel system, lubrication and cooling of the engine, electrical systems, steering gear, bilge pumps, through-hull and drains of cockpit if applicable, quick shut-off valves, fire dampers in ventilation systems</li> <li>– Engine and system monitoring and measures to be taken in case of alarm of failure</li> </ul>

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<b>Item</b>	<b>Competence</b>	<b>Knowledge, understanding and proficiency</b>
4.	Deal with emergency situations	<ul style="list-style-type: none"> <li>– Be able to identify measures to be taken in emergency situations such as:               <ul style="list-style-type: none"> <li>a) Collision</li> <li>b) Grounding</li> <li>c) Flooding</li> <li>d) Fire</li> <li>e) Injured person or person overboard</li> <li>f) Release of a polluting substance or liquid</li> </ul> </li> <li>– Measures to be taken to ensure protection and safety of crew members and passengers in emergency situations</li> <li>– The master's obligation with regard to initial and subsequent reports to be made in case of a marine occurrence</li> <li>– Knowledge and meaning of distress signals as prescribed by appendix IV of the <i>Collision Regulations</i></li> <li>– Measures to be taken to assist a vessel in distress</li> </ul>
5.	Prevent and fight fires	<ul style="list-style-type: none"> <li>– Knowledge of precautions to be taken to prevent fires</li> <li>– Knowledge of precautions to be taken during fuelling</li> <li>– Knowledge of fire-fighting and fire detection equipments</li> <li>– To be able to use all the fire-fighting equipment on the vessel</li> </ul>
6.	Moor the vessel and perform related seamanship work	<ul style="list-style-type: none"> <li>– Knowledge and use of mooring ropes and their use</li> <li>– Knowledge of the various ropes and their uses</li> <li>– Knowledge of the various knots and their uses</li> <li>– Ability to make knots</li> </ul>
7.	Prevent pollution	<ul style="list-style-type: none"> <li>– Knowledge of the precautions to be taken during fuelling</li> <li>– Requirements regarding the <i>Oil Record Book</i></li> <li>– Knowledge of the statutory requirements to report pollution incidents</li> <li>– Knowledge of <i>Division 5 – Garbage</i> of the <i>Prevention of Pollution from Ships and for Dangerous Chemicals Regulations</i></li> </ul>
8.	Maintain the vessel's stability	<p><b>Vessel &lt; 60GT</b></p> <ul style="list-style-type: none"> <li>– Knowledge of the basic principles of stability</li> <li>– Practical application of stability principles to a vessel</li> <li>– Free surface effect</li> </ul> <p><b>Vessel ≥ 60GT</b></p> <ul style="list-style-type: none"> <li>– Understanding basic stability terminology</li> <li>– Knowledge of the basic principles of stability</li> <li>– Knowledge of KG, GM and righting lever GZ</li> <li>– Ability to explain using a sketch of a heeled vessel, how the centre of gravity (G) and the centre of buoyancy (B) are acting to create a righting lever (GZ)</li> <li>– Effect on stability of adding, removing, transferring and suspending weights</li> <li>– Stable equilibrium, unstable equilibrium, neutral equilibrium</li> <li>– Maintain watertight integrity</li> <li>– Free surface effect</li> <li>– Practical use of the vessel's stability booklet, in order to evaluate stability in different operating conditions of intact and damaged stability if applicable</li> </ul>



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<b>Item</b>	<b>Competence</b>	<b>Knowledge, understanding and proficiency</b>
9.	Ensure the safety of passengers and use safety and lifesaving equipment	<ul style="list-style-type: none"> <li>– Knowledge of all the safety and lifesaving equipment on the vessel, such as lifeboats and liferafts, life jackets, lifebuoys, oars, bailers, pumps, anchors and distress flares</li> <li>– Ability to use all the safety and lifesaving equipment on the vessel</li> <li>– Knowledge of the master's and first mate's responsibilities with regard to the safety of crew members and passengers</li> <li>– Ability to conduct boat and fire drills</li> <li>– Understanding of the importance of lifesaving equipment demonstrations and safety instructions given to passengers before sailing</li> <li>– Familiarization of new crew members with the vessel's equipment and safety procedures</li> <li>– Required training before being assigned to any duty on a vessel</li> <li>– Ability to deal with crisis situations and control crowds if applicable</li> <li>– Knowledge of the requirements for gangways</li> </ul>
10.	Carry out necessary checks and inspections and make sure that the vessel has all required certificates and documents	<p><b>Vessels subject or not subject to regulatory inspections</b></p> <ul style="list-style-type: none"> <li>– Knowledge of the principal structural members of a vessel and the proper names for the various parts</li> <li>– Checks to be made before departure</li> </ul> <p><b>In addition, for vessels subject to regulatory inspections</b></p> <ul style="list-style-type: none"> <li>– Preparation for a regulatory inspection</li> <li>– Knowledge of statutory requirements with respect to crewing, inspection of the vessel and required equipment</li> <li>– Knowledge of required documents and certificates, their limits and their validity</li> <li>– Knowledge of requirements for the agreement with the crew, if applicable</li> <li>– Knowledge of record-keeping requirements</li> </ul>
11.	Ensure safe navigation and prevent collisions	<p><b>Vessel &lt; 60GT</b></p> <ul style="list-style-type: none"> <li>– Knowledge of the <i>Collision Regulations</i>, in particular regarding: <ul style="list-style-type: none"> <li>Steering and sailing rules</li> <li>Lights and shapes</li> <li>Sound and light signals</li> </ul> </li> </ul> <p><b>In addition, for vessel ≥ 60GT</b></p> <ul style="list-style-type: none"> <li>– Thorough knowledge of content, application and intention of the <i>Collision Regulations</i></li> <li>– Knowledge of the principles to be observed in keeping a navigational watch</li> </ul>

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<b>Item</b>	<b>Competence</b>	<b>Knowledge, understanding and proficiency</b>
12.	Use marine charts and nautical publications to plan and execute a voyage	<ul style="list-style-type: none"> <li>– Knowledge of and ability to use marine charts, especially with regard to:               <ul style="list-style-type: none"> <li>a) Abbreviations and symbols</li> <li>b) Geographic coordinates                   <ul style="list-style-type: none"> <li>(1) Use latitude and longitude to fix a position on the chart</li> <li>(2) Extract the latitude and longitude of a given position on the chart</li> </ul> </li> <li>c) The use of magnetic deviation and variation to convert compass bearings into true bearings and to calculate compass courses to be steered to follow a true course</li> <li>d) Determining the position of the vessel on a chart by various means including:                   <ul style="list-style-type: none"> <li>(1) Compass bearings</li> <li>(2) Visual ranges</li> <li>(3) Estimated position of the vessel according to its course and speed</li> </ul> </li> <li>e) Planning an charting a course to follow a given route</li> <li>f) Determining the direction of a course drawn on a chart</li> <li>g) Properly measure distances on a chart</li> <li>h) The course to steer to counteract the effect of winds and currents</li> </ul> </li> <li>– Ability to use and knowledge of the following marine publications:               <ul style="list-style-type: none"> <li>a) Annual edition of notices to mariners</li> <li>b) Tide tables</li> <li>c) Radio aids to marine navigation</li> <li>d) List of lights, buoys and fog signals</li> </ul> </li> </ul> <p><b>In addition, for a vessel <math>\geq 60T</math></b>            Knowledge of principles for constructing the various types of charts and their uses</p>
13.	Use the magnetic compass for taking bearings and for steering	<ul style="list-style-type: none"> <li>– Knowledge of basic magnetic properties in relation to compasses and the Earth's magnetic field</li> <li>– Ability to steer using the compass</li> <li>– Ability to take compass bearings</li> <li>– Ability to use a deviation card or curve</li> <li>– Ability to find the compass deviation</li> </ul> <p><b>In addition, for a vessel <math>\geq 60T</math></b>            Ability to determine errors of the compass using terrestrial means, and to allow for such errors.</p>
14.	Use the Canadian Buoyage System	<ul style="list-style-type: none"> <li>– Knowledge of the Canadian buoyage system and ability to:               <ul style="list-style-type: none"> <li>a) Identify buoys</li> <li>b) Situate buoys in the lateral and cardinal system</li> <li>c) Recognize the various buoy lights</li> </ul> </li> </ul>

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<b>Item</b>	<b>Competence</b>	<b>Knowledge, understanding and proficiency</b>
15.	Use radar for navigation safety	<ul style="list-style-type: none"> <li>– Knowledge of the basic principle of radar and its functioning:               <ul style="list-style-type: none"> <li>a) Start-up procedure</li> <li>b) Function and effect of main commands</li> <li>c) Interpretation of the radar image</li> </ul> </li> <li>– Ability to use radar for positioning:               <ul style="list-style-type: none"> <li>a) Identification of radar marks useful for navigation</li> <li>b) Bearing-taking and distance measurement by radar</li> </ul> </li> <li>– Ability to use radar as an anti-collision device:               <ul style="list-style-type: none"> <li>a) Evaluation of the risk of collision by observing radar bearings</li> <li>b) Determining the approximate closest distance of approach</li> <li>c) Effect of a change of heading or speed or both on the closest distance of approach</li> </ul> </li> </ul>
16.	Determine the position of the vessel using electronic navigation aids	<ul style="list-style-type: none"> <li>– Ability to correctly use all of the following instruments:               <ul style="list-style-type: none"> <li>GPS:                   <ul style="list-style-type: none"> <li>a) Starting procedure and functioning of the device</li> <li>b) Correct use of data supplied by the instrument</li> <li>c) Recognizing possible errors, lack of reliability and the need to double check</li> </ul> </li> </ul> </li> <li>– Echo sounder:               <ul style="list-style-type: none"> <li>a) Starting procedure and functioning of the device</li> <li>b) Correct use of data supplied by the instrument</li> </ul> </li> </ul>
17.	Carry out radio communications	<ul style="list-style-type: none"> <li>– Knowledge of the categories of vessels on which a VHF transmitter-receiver is required</li> <li>– Knowledge of Coast Guard radio stations and the services they provide</li> <li>– Identify vessels required to report to the various Vessel Traffic Centres</li> <li>– Knowledge of the publication <i>Radio Aids to Marine Navigation</i></li> <li>– The functioning and use of EPIRBs, if applicable</li> <li>– Understanding of the use of MMSI number, if applicable</li> <li>– Use of sailing plans</li> </ul>
18.	Carry out towing operations	<ul style="list-style-type: none"> <li>– Practical knowledge of towing, in particular:               <ul style="list-style-type: none"> <li>a) Cables used for towing and their required length</li> <li>b) The towing point</li> <li>c) Towing bits and hooks</li> <li>d) The effect of the towing cable on the centre of gravity of the tug and on its stability</li> <li>e) Events that may result in the capsizing of the tug</li> <li>f) Different ways to instantly release the towing cable in an emergency</li> <li>g) Taking and letting go the tow</li> <li>h) The use of an emergency tow line</li> </ul> </li> </ul>

### 3.48 Domestic Vessel Safety (MED DVS)

The applicant for a certificate of competency for which the qualification “Domestic Vessel Safety (MED DVS)” is required to demonstrate that they meet that requirement by successfully completing an approved Domestic Vessel Safety (MED DVS) training course.

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The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Response to marine emergencies on a domestic vessel	<p>The applicant must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>— Basic understanding of the hazards related to a vessel and to the marine environment and of how to prevent shipboard incidents including fire;</li> <li>— Knowledge of the need to raise and react to alarms and deal with emergencies;</li> <li>— Assistance to be provided in fire and abandonment situations;</li> <li>— Knowledge and skills to help own survival and rescue;</li> <li>— Procedures for maintaining emergency equipment according to manufacturer guidelines;</li> <li>— Record-keeping procedures for safety equipment;</li> <li>— Knowledge and skills necessary to keep passengers safe and help them survive an emergency;</li> <li>— Plan, organize and carry out safety drills so the passengers will be aware of safety equipment and procedures.</li> </ul>

### 3.49 Domestic Passenger Vessel Safety (MED DPVS)

The applicant for a certificate of competency for which the qualification “Domestic Passenger Vessel Safety (MED DPVS)” is required to demonstrate that they meet that requirement by successfully completing an approved Domestic Passenger Vessel Safety (MED DPVS) training course.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Response to marine emergencies on a domestic passenger vessel	<p>The applicant must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>— Basic understanding of the hazards related to a vessel and to the marine environment and of how to prevent shipboard incidents including fire;</li> <li>— Knowledge of the need to raise and react to alarms and deal with emergencies;</li> <li>— Assistance to be provided in fire and abandonment situations;</li> <li>— Knowledge and skills to help own survival and rescue;</li> <li>— Procedures for maintaining emergency equipment according to manufacturer guidelines;</li> </ul>

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	<ul style="list-style-type: none"> <li>— Record-keeping procedures for safety equipment;</li> <li>— Knowledge and skills necessary to keep passengers safe and help them survive an emergency;</li> <li>— Plan, organize and carry out safety drills with passengers so the passengers will be aware of safety equipment and procedures.</li> </ul>
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### 3.50 Small Non-Pleasure Domestic Vessel Basic Safety (MED SDV-BS)

The applicant for a certificate of competency for which the qualification “Small Non-Pleasure Domestic Vessel Basic Safety (MED SDV-BS)” is required to demonstrate this qualification by completing an approved Small Non-Pleasure Domestic Vessel Basic Safety (MED SDV-BS) course.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
Response to marine emergencies on a small vessel in sheltered waters or any domestic vessel	<p>The applicant must have acquired the following knowledge, understanding and proficiency:</p> <ul style="list-style-type: none"> <li>— Basic understanding of the hazards related to the marine environment and to their own vessel, and of how to prevent shipboard incidents including fire;</li> <li>— Knowledge of the need to raise and react to alarms and deal with emergencies;</li> <li>— Assistance to be provided in fire and abandonment situations;</li> <li>— Knowledge and skills to help own survival and rescue.</li> </ul>

### 3.51 STCW Basic Safety

The applicant for a certificate of competency for which the qualification “General Seamanship” is required to demonstrate that they meet that requirement by one of the following methods:

- 1) Successful completion of an approved STCW Basic Safety training course, or
- 2) Successful completion of a refresher training course in STCW Basic Safety.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in tables A-VI/1-1, A-VI/1-2, A-VI/1-3, and A-VI/1-4 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<p>The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table of table A-VI/1-1 of the STCW Code:</p> <ul style="list-style-type: none"> <li>- Survive at sea in the event of ship abandonment</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/1-1 of the STCW Code.</p>

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<p>The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-VI/1-2 of the STCW Code:</p> <ul style="list-style-type: none"> <li>- Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire</li> <li>- Fight and extinguish fires</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/1-2 of the STCW Code.</p>
<p>The applicant must have obtained the following training necessary to undertake the tasks, duties and responsibilities listed in column 1 of table A-VI/1-3 of the STCW Code:</p> <ul style="list-style-type: none"> <li>- Take immediate action upon encountering an accident or other medical emergency</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/1-3 of the STCW Code.</p>
<p>The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-VI/1-4 of the STCW Code:</p> <ul style="list-style-type: none"> <li>- Comply with emergency procedures</li> <li>- Take precautions to prevent pollution of the marine environment</li> <li>- Observe safe working practices</li> <li>- Contribute to effective communications on board ship</li> <li>- Contribute to effective human relationships on board ship</li> <li>- Understand and take necessary actions to control fatigue</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/1-4 of the STCW Code.</p>

### 3.52 Survival Craft and Rescue Boats Other Than Fast Rescue Boats

The applicant for a certificate of competency for which the qualification “Survival Craft and Rescue Boats Other Than Fast Rescue Boats” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved Survival Craft and Rescue Boats Other Than Fast Rescue Boat training course training course, or
2. Successful completion of a refresher training course in Survival Craft and Rescue Boats Other Than Fast Rescue Boat training.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-VI/2-1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<p><b>Tables A-VI/2 and VI/2-1 of the STCW Code</b></p> <ul style="list-style-type: none"> <li>- Take charge of a survival craft or rescue boat during and after launch</li> <li>- Operate a survival craft engine</li> </ul>	<p>The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/2-1 of the STCW Code.</p>

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<ul style="list-style-type: none"> <li>- Manage survivors and survival craft after abandoning ship</li> <li>- Use locating devices, including communication and signaling apparatus and pyrotechnics</li> <li>- Apply first aid to survivors</li> </ul>	
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### 3.53 Advanced Fire Fighting

The applicant for a certificate of competency for which the qualification “Advanced Fire Fighting” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved Advanced Fire Fighting training course, or
2. Successful completion of a refresher training course in Advanced Fire Fighting training.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-VI/3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-VI/3</b> <ul style="list-style-type: none"> <li>- Control fire-fighting operations aboard ships</li> <li>- Organize and train fire parties</li> <li>- Inspect and service fire-detection and fire extinguishing systems and equipment</li> <li>- Investigate and compile reports on incidents involving fire</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/3 of the STCW Code.

### 3.54 Marine Advanced First Aid

The applicant for a certificate of competency for which the qualification “Marine Advanced First Aid” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved Marine Advanced First Aid training course, or
2. Successful completion of a refresher training course in Marine Advanced First Aid training.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-VI/4-1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-VI/4 and A-VI/4-1 of the STCW Code</b> Apply immediate first aid in the event of accident or illness on board	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/4-1 of the STCW Code.

### 3.55 Marine Basic First Aid

The applicant for a certificate of competency for which the qualification “Marine Basic First Aid” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved Marine Basic First Aid training course, or
2. Any equivalent or higher course that the Minister deems acceptable.

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The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-VI/1-3 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
<b>Table A-VI/1-3</b> Take immediate action upon encountering an accident or other medical emergency	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-VI/1-3 of the STCW Code.



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## **Chapter 4 — Qualifications for STCW Engineering Officer and Electro-technical Officer Certificates of Competency**

### **4.0 Qualifications to be demonstrated by qualification level and certificate rank**

#### **(1) Engineer in Charge of the Watch**

An applicant for an Engineer in Charge of the Watch certificate of competency must demonstrate that they possess the following qualifications:

- Auxiliary Machinery and Systems Level 1
- Motor Propulsion Systems Level 1 <sup>1</sup>
- Steam Propulsion Systems Level 1 <sup>1</sup>
- Applied Mechanics Level 1
- Thermodynamics Level 1
- Electro-technology and Automation Level 1
- Naval Architecture Level 1
- Material Sciences
- Applied Chemistry for Marine Engineers
- Applied Mathematics
- Maritime Law and Ships Business Level 1
- Technical Drawing
- High Voltage Safety - Operational <sup>2</sup>
- Engine Room Operation Practices
- Leadership and Teamworking Skill
- Practical Skills
- English Language Proficiency

#### **(2) Second Engineer Less than 3 000 kW Propulsive Power**

An applicant for a Second Engineer Less than 3 000 kW Propulsive Power certificate of competency must hold an Engineer in Charge of the Watch certificate of competency and must demonstrate that they possess the following qualifications:

- Auxiliary Machinery and Systems Level 2
- Motor Propulsion Systems Level 2 <sup>1</sup>
- Steam Propulsion Systems Level 2 <sup>1</sup>
- Electro-technology and Automation Level 2
- Maritime Law and Ship's Business Level 2
- Technical Drawing
- High Voltage Safety Management <sup>2</sup>
- Engine Room Management Practices
- Leadership and Managerial Skill
- English Language Proficiency

#### **(3) Chief Engineer Less than 3 000 kW Propulsive Power**

An applicant for a Chief Engineer Less than 3 000 kW Propulsive Power certificate of competency must hold a Second Engineer Less than 3 000 kW Propulsive Power certificate of competency and must demonstrate that they possess the following qualifications:

- Auxiliary Machinery and Systems Level 2
- Motor Propulsion Systems Level 2 <sup>1</sup>

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- Steam Propulsion Systems Level 2<sup>1</sup>
- Electro-technology and Automation Level 2
- Naval Architecture Level 2
- Maritime Law and Ship's Business Level 2
- Technical Drawing
- High Voltage Safety Management <sup>2</sup>
- Engine Room Management Practices
- Leadership and Managerial Skill
- English Language Proficiency

#### **(4) Second Engineer**

An applicant for a Second Engineer certificate of competency must hold an Engineer in Charge of the Watch certificate of competency and must demonstrate that they possess the following qualifications:

- Auxiliary Machinery and Systems Level 2
- Motor Propulsion Systems Level 2<sup>1</sup>
- Steam Propulsion Systems Level 2<sup>1</sup>
- Applied Mechanics Level 2
- Thermodynamics Level 2
- Electrotechnology and Automation Level 2
- Naval Architecture Level 2
- Maritime Law and Ships Business Level 2
- Technical Drawing
- High Voltage Safety Management <sup>2</sup>
- Engine Room Management Practices
- Leadership and Managerial Skill

#### **(5) Chief Engineer Less than 6 000 kW Propulsive power, Near Coastal**

An applicant for a Chief Engineer Less than 6 000 kW Propulsive power, Near Coastal certificate of competency must hold a Second Engineer certificate of competency.

#### **(6) Chief Engineer**

An applicant for a Chief Engineer certificate of competency who holds a Second Engineer certificate of competency must have demonstrated that they possess the qualifications listed in (1) and (4).

An applicant for a Chief Engineer certificate of competency who holds an Engineer in Charge of the Watch certificate of competency must have demonstrated that they possess the qualifications listed in (1) and (4).

Note 1: A person must demonstrate one or both of the Motor Propulsion Systems and Steam Propulsion Systems qualifications. Certificates of competency must have a limitation to those types of propulsion systems for which the person has demonstrated the corresponding qualification.

Note 2: For a person who has not demonstrated that they possess a High Voltage Safety qualification, appropriate to the level of certificate held, must have a limitation on their certificate of competency to vessels that have a voltage power system of less than 1 000 Volt.

### **4.1 Auxiliary Machinery and Systems, Level 1**

The applicant for a certificate of competency for which the qualification "Auxiliary Machinery and Systems, Level 1" is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- Successful completion of approved training:

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- i. an approved EOET III/1 training program, or
- ii. an approved training course Auxiliary Machinery and Systems Level 1, and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that they have acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Operate main and auxiliary machinery and associated control systems</li> <li>- Operate fuel, lubrication, ballast and other pumping systems and associated control systems</li> <li>- Ensure compliance with pollution prevention requirements</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to vessel auxiliary machinery and systems.

#### **4.2 Auxiliary Machinery and Systems, Level 2**

The applicant for a certificate of competency for which the qualification “Auxiliary Machinery and Systems, Level 2” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- a. Successful completion of approved training:
  - i. an approved EOET III/2 training program, or
  - ii. an approved training course Auxiliary Machinery and Systems Level 2 and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that they has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Manage the operation of propulsion plant machinery</li> <li>- Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery</li> <li>- Manage fuel, lubrication and ballast operations</li> <li>- Manage safe and effective maintenance and repair procedures</li> <li>- Detect and identify the cause of machinery malfunctions and correct faults</li> <li>- Ensure safe working practices</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as it pertains to vessel propulsion plant machinery and systems.
<ul style="list-style-type: none"> <li>- Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to the maintainance of lifesaving fire-fighting and other safety systems, the organization of fire and abandon ship drills, and

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	actions to be taken to safeguard all persons on board in an emergency.
- Develop emergency and damage control plans and handle emergency situations	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to methods and aids for fire prevention, detection, extinction and the function and use of life-saving appliances.

#### 4.3 Motor Propulsion Systems, Level 1

The applicant for a certificate of competency for which the qualification “Motor Propulsion Systems, Level 1” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- a. Successful completion of approved training:
  - i. an approved EOET III/1 training program, or
  - ii. an approved training course Motor Propulsion Systems, Level 1; and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that they have acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to diesel and gas turbine main propulsion engines and auxiliary machinery and associated control systems.

#### 4.4 Motor Propulsion Systems Level 2

The applicant for a certificate of competency for which the qualification “Motor Propulsion Systems, Level 2” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- a. Successful completion of approved training:
  - i. an approved EOET III/2 training program, or
  - ii. an approved training course Motor Propulsion Systems, Level 2; and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
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<ul style="list-style-type: none"> <li>- Manage the operation of propulsion plant machinery</li> <li>- Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery</li> <li>- Manage safe and effective maintenance and repair procedures</li> <li>- Detect and identify the cause of machinery malfunctions and correct faults</li> <li>- Ensure safe working practices</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to diesel and gas turbine main propulsion engines and auxiliary machinery and associated control systems.
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#### 4.5 Steam Propulsion Systems Level 1

The applicant for a certificate of competency for which the qualification “Steam Propulsion Systems, Level 1” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- a. Successful completion of approved training:
  - i. an approved EOET III/1 training program, or
  - ii. an approved training course Steam Propulsion Systems, Level 1; and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to steam turbine propulsion engines, propulsion boilers and auxiliary machinery and associated control systems.

#### 4.6 Steam Propulsion Systems Level 2

The applicant for a certificate of competency for which the qualification “Steam Propulsion Systems, Level 2” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- a. Successful completion of approved training:
  - i. an approved EOET III/2 training program, or
  - ii. an approved training course Steam Propulsion Systems, Level 2; and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
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<ul style="list-style-type: none"> <li>- Manage safe and effective maintenance and repair procedures</li> <li>- Detect and identify the cause of machinery malfunctions and correct faults</li> <li>- Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery</li> <li>-Ensure safe working practices</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to steam turbine propulsion engines, propulsion boilers and auxiliary machinery and associated control systems.
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#### 4.7 Applied Mechanics Level 1

The applicant for a certificate of competency for which the qualification “Applied Mechanics Level 1” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- an approved EOET III/1 training program, or
- an approved training course Applied Mechanics Level 1; and, then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to the principals of applied mechanics and hydro-mechanics.

#### 4.8 Applied Mechanics Level 2

The applicant for a certificate of competency for which the qualification “Applied Mechanics Level 2” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- successful completion of an approved EOET III/2 training program, or
- an approved training course Applied Mechanics Level 2; and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Plan and schedule operations</li> <li>- Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to the principals of applied mechanics and hydro-mechanics.

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#### 4.9 Thermodynamics, Level 1

The applicant for a certificate of competency for which the qualification “Thermodynamics, Level 1” is required to demonstrate that they meet that requirement by the successful completion of (a) or (b):

- a. an approved EOET III/1 training program, or
- b. an approved training course Thermodynamics, Level 1, and pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to the principals of thermodynamics and heat transfer.

#### 4.10 Thermodynamics, Level 2

The applicant for a certificate of competency for which the qualification “Thermodynamics, Level 2” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- a. an approved EOET III/2 training program, or
- b. an approved training course Thermodynamics, Level 2; and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and understanding</b>
- Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to the principals of thermodynamics and heat transfer.

#### 4.11 Electrotechnology and Automation, Level 1

The applicant for a certificate of competency for which the qualification “Electrotechnology and Automation, Level 1” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- a. Successful completion of approved training:
  - i. an approved EOET III/1 training program, or
  - ii. an approved training course Electrotechnology and Automation, Level 1; and
- b. After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
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<ul style="list-style-type: none"> <li>- Operate electrical, electronic and control systems</li> <li>- Maintenance and repair electrical, electronic and control systems</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code, as they pertain to the operation, maintenance and repair of electrical, electronic and control systems and equipment.
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#### 4.12 Electrotechnology and Automation, Level 2

The applicant for a certificate of competency for which the qualification “Electrotechnology and Automation, Level 2” is required to demonstrate that they meet that requirement by completing (a) followed by (b):

- Successful completion of approved training:
  - an approved EOET III/2 training program, or
  - an approved training course Electrotechnology and Automation, Level 2; and
- After meeting (a), pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Manage operation of electrical and electronic control equipment</li> <li>- Manage troubleshooting, restoration of electrical and electronic control equipment to operating condition</li> <li>- Manage safe and effective maintenance and repair procedures</li> <li>- Detect and identify the cause of machinery malfunctions and correct faults</li> <li>- Ensure safe working practices</li> </ul>	The applicant must have acquired the corresponding knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to the management, operation, maintenance and repair of electrical and electronic systems and equipment.

#### 4.13 Naval Architecture, Level 1

The applicant for a certificate of competency for which the qualification “Naval Architecture, Level 1” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- an approved EOET III/1 training program, or
- an approved training course Naval Architecture, Level 1; and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Maintain seaworthiness of the ship</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to the principles and practices of ship construction and maintaining the seaworthiness of the ship.



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#### 4.14 Naval Architecture, Level 2

The applicant for a certificate of competency for which the qualification “Naval Architecture, Level 2” is required to demonstrate that they meet that requirement by the successful completion of (a) or (b):

- an approved EOET III/2 training program, or
- an approved training course Naval Architecture, Level 2; and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Control trim, stability and stress	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to the principles and practices of controlling trim, stability, ship construction and structural stress.
- Maintain safety and security of the vessel, crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to ship construction and to actions to limit damage and salve the ship following fire, explosion, collision or grounding.
- Develop emergency and damage control plans and handle emergency situations	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to ship construction and damage control.

#### 4.15 Material Sciences

The applicant for a certificate of competency for which the qualification “Material Sciences” is required to demonstrate that they meet that requirement by the successful completion of (a) or (b):

- an approved EOET III/1 training program, or
- an approved training course in Material Science and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to principles of applied material sciences.

#### 4.16 Applied Chemistry for Marine Engineers

The applicant for a certificate of competency for which the qualification “Applied Chemistry for Marine Engineers” is required to demonstrate that they meet that requirement by the successful completion of (a) or (b):

- an approved EOET III/1 training program, or
- an approved training course in Applied Chemistry for Marine Engineers and then pass a written examination, or hold an exemption from this examination.

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The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to principals of applied chemistry.

#### **4.17 Applied Mathematics**

The applicant for a certificate of competency for which the qualification “Applied Mathematics” is required to demonstrate that they meet that requirement by the successful completion of (a) or (b):

- a. an approved EOET III/1 training program, or
- b. an approved training course in Applied Mathematics and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Operate main and auxiliary machinery and associated control systems	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to principals of applied mathematics.

#### **4.18 Maritime Law and Ships Business, Level 1**

The applicant for a certificate of competency for which the qualification “Maritime Law and Ships Business, Level 1” is required to demonstrate that they meet that requirement by completing (a):

- a. Successful completion of approved training:
  - i. an approved EOET III/1 training program, or
  - ii. an approved training course Maritime Law and Ships Business, Level 1.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Monitor compliance with legislative requirements  - Ensure compliance with pollution prevention requirements	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to monitoring and ensuring compliance with national and international legislative and pollution prevention requirements.
Monitor and control compliance with Canadian legislative requirements	The applicant must have a knowledge, understanding and proficiency in Canadian legislation and regulation concerning

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	occupational health and safety, safety of life at sea, security and protection of the marine environment, regulatory authorities, and recognized organizations.
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#### 4.19 Maritime Law and Ships Business, Level 2

The applicant for a certificate of competency for which the qualification “Maritime Law and Ships Business, Level 2” is required to demonstrate that they meet that requirement by completing (a):

- a. Successful completion of approved training:
  - i. an approved EOET III/2 training program, or
  - ii. an approved training course Maritime Law and Ships Business, Level 2.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to monitoring and ensuring compliance with national and international legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment.
- Monitor and control compliance with Canadian legislative requirements	The applicant must have a detailed knowledge, understanding and proficiency in Canadian legislation and regulations in the marine industry, including occupational health and safety, labour standards, Port State Control, marine liability and insurance to ensure the safety of navigation, persons, property and the environment.

#### 4.20 Technical Drawing

The applicant for a certificate of competency for which the qualification “Technical Drawing” is required to demonstrate that they meet that requirement by the successful completion of (a) or (b):

- a. an approved EOET III/1 training program, or
- b. an approved training course in Technical Drawing and then pass a written examination, or hold an exemption from this examination.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Maintenance and repair of shipboard machinery and equipment	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code as they pertain to technical drawing.

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#### 4.21 High Voltage Safety Operational

The applicant for a certificate of competency for which the qualification “High Voltage Safety Operational” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- a. an approved EOET III/1 training program which has this qualification integrated into the program, or
- b. an approved training course in High Voltage Safety Operational.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Maintain a safe engineering watch</li> <li>- Use internal communication systems</li> <li>- Operate main and auxiliary machinery and associated control systems</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code.

#### 4.22 High Voltage Safety Management

The applicant for a certificate of competency for which the qualification “High Voltage Safety Management” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- a. an approved EOET III/2 training program which has this qualification integrated into the program, or
- b. an approved training course in High Voltage Safety Management.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Manage operation of electrical and electronic control equipment</li> <li>- Manage troubleshooting, restoration of electrical and electronic control equipment to operating condition</li> <li>- Manage safe and effective maintenance and repair procedures</li> <li>- Detect and identify the cause of machinery malfunctions and correct faults</li> <li>-Ensure safe working practices</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code as they pertain to high voltage safety.

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#### 4.23 Engine Room Operation Practices

The applicant for a certificate of competency for which the qualification “Engine Room Operation Practices” is required to demonstrate that they meet that requirement by the successful completion of (a) and then(b):

- an approved Propulsion Plant Simulator 1 course, and then
- pass a simulator based examination in Propulsion Plant Simulator 1.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<ul style="list-style-type: none"> <li>- Maintain a safe engineering watch</li> <li>- Use internal communication systems</li> <li>- Operate main and auxiliary machinery and associated control systems</li> </ul>	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code.

#### 4.24 Engine Room Management Practices

The applicant for a certificate of competency for which the qualification “Engine Room Management Practices” is required to demonstrate that they meet that requirement by the successful completion of (a) and then(b):

- an approved Propulsion Plant Simulator 2 course, and then
- pass a simulator based examination in Propulsion Plant Simulator 2.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Manage the operation of propulsion plant and auxiliary machinery and systems	Start up, shut down, safety precautions, practices and procedures for the operation of diesel propulsion machinery and systems, auxiliary steam plant, electrical power generating plant. Operation of engine and auxiliary control systems. Normal and emergency operations. Operating limits of propulsion plant. Functions and mechanisms of automatic control systems and components.

#### 4.25 Leadership and Teamworking Skill

The applicant for a certificate of competency for which the qualification “Leadership and Teamworking Skill” is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- an approved EOET III/1 training program which has this qualification integrated into the program, or
- an approved training course in Leadership and Teamworking Skill.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
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- Application of leadership and Teamworking skills	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code.
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#### 4.26 Leadership and Managerial Skill

The applicant for a certificate of competency for which the qualification “Leadership and Managerial Skill” is required to demonstrate that they meet that requirement by successfully completing an approved training course in Leadership and Managerial Skill.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Use leadership and managerial skills	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/2 of the STCW Code.

#### 4.27 Practical Skills

The applicant for a certificate of competency for which the qualification “Practical Skills” is required to demonstrate that they meet that requirement by one of the following methods:

- a. Successful completion of an approved EOET III/1 training program, or
- b. Successful completion of the approved training courses;
  - i. Practical Skills for the Engineering Department Module 1, Repair and Maintenance,
  - ii. Practical Skills for the Engineering Department Module 2, Welding, and
  - iii. Practical Skills for the Engineering Department Module 3, Machine Shop.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
- Appropriate use of hand tools, machine tools and measuring instruments for fabrication and repair on board  - Maintenance and repair of shipboard machinery and equipment	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code.

#### 4.28 English Language Proficiency

1. The applicant for a certificate of competency for which the qualification “English Language Proficiency” is required to demonstrate that they meet that requirement by one of the following methods:
  - a. demonstrate that English is the applicant’s native language
  - b. providing documentary evidence of
    - i. successful completion of a secondary or post-secondary educational program where English was the language of instruction,

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- ii. successful completion of English as a second language instruction at an acceptable level at a CEGEP in the Province of Quebec, or
- iii. achievement of test scores at an acceptable level in any of the following testing schemes:
  - 1. Canadian English Language Proficiency Index Program (CELPIP) – General;
  - 2. International English Language Testing System (IELTS) – General; or
  - 3. Berlitz Test
- 2. Language level requirements
  - a. Applicants shall meet, at a minimum:
    - i. the Canadian Language Benchmark (CLB) level 4,
    - ii. the Common European Framework of Reference for Languages (CEF) level A2.1; or
    - iii. Berlitz level 2.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
Use English in written and oral form	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/1 of the STCW Code.

#### 4.29 Electro-technical Officer

- 1. The applicant for an “Electro-technical Officer” certificate of competency can demonstrate that they meet the required competence, knowledge, understanding and proficiency of STCW Code Table A-III/6 by successfully completing an approved Electro-technical Officer Training program.
- 2. In lieu of completing 1, an applicant who meets the sea service and experience requirements of section 1048(b) of the MPR 2023 may apply for an assessment of their education, training and experience against the requirements of an approved training program and undergo any further training necessary to meet the requirements of the program.
  - a. the process for this is:
    - i. The applicant submits documentary evidence of their sea service to TC for assessment.
    - ii. If the sea service meets the requirements of section 1048(b) TC will issue the applicant a letter of assessment of sea service.
    - iii. After receiving the letter of assessment the applicant may then apply to an RI offering an approved Electro-technical Officer training program for assessment of their education, training and experience against the requirements of the approved program.
    - iv. If the applicant’s education, training and experience are assessed as meeting the requirements the RI will issue the applicant a certificate of assessment certifying that the the combination of the person’s education, training and experience meets the demonstration requirements of section 1048(a).
    - v. If the applicant’s education, training and experience is assessed as NOT meeting the demonstration requirements of section 1048(a) the RI will RI will prepare a training plan for the applicant.
    - vi. On successful completion of the training plan at an RI, the RI will issue a training certificate.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/6 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-III/6 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/6 of the STCW Code.

#### 4.30 General Engineering Knowledge of Small Vessels

The applicant for a certificate of competency for which the qualification “General Engineering Knowledge of Small Vessels “ is required to demonstrate that they meet that requirement by the successful completion of either (a) or (b):

- an applicant who has completed an approved Small Vessel Machinery Operator training course must pass an oral examination, or
- an applicant who has **not** completed an approved Small Vessel Machinery Operator training course must pass a written and then an oral examination.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and has acquired the knowledge, understanding and proficiency described in this table.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
Operate small vessel propulsion and auxiliary machinery and systems	<p>General arrangement, operating principles, operational procedures, practices and precautions for: internal combustion engines and engine auxiliary equipment and systems; vessel auxiliary machinery and systems: power transmission machinery and systems; electrical power supply, generation and distribution; control systems, steering systems, pumping systems, bilge systems, deck machinery.</p> <p>Vessel construction and maintaining watertight integrity of hull and compartments, elementary stability. Properties of fuels and lubricants. Watchkeeping procedures, record keeping, safe working practices and hazard recognition.</p>



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## Chapter 5 - STCW Ratings Certificates of Competency

### 5.1 Able Seafarer Deck

The applicant for an “Able Seafarer Deck” certificate of competency for which the qualification “Able Seafarer Deck (AB-D)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved training course in Able Seafarer Deck, or
2. Obtain a 70 percent grade or more on the TC examination on Able Seafarer Deck (AB-D).

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/5 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/5 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in Column 2 of table A-II/5 of the STCW Code.

### 5.2 Bridge Watch Rating

The applicant for a certificate of competency for which the qualification “Bridge Watch Rating (BWR)” is required to demonstrate that they meet that requirement by one of the following methods:

1. Successful completion of an approved Bridge Watch Rating training program, or
2. Obtaining a 60 percent grade or more on the TC examination on Bridge Watch Rating (BWR), and
  - a. Successful completion of an approved training course in steering, or
  - b. Providing a steering testimonial.

The method chosen to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-II/4 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, skill and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/4 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in Column 2 of table A-II/4 of the STCW Code.

### 5.3 Engine-room Rating

The applicant for an “Engine-room Rating” certificate of competency can demonstrate that they meet the required competence, knowledge, understanding and proficiency of STCW Code Table A-III/4 by completing either (a) or (b):

- a. Successful completion of an approved Engine-room Rating training course; or
- b. an approved training record book, and then pass a written examination.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/4 of the STCW Code, as associated with that competence.

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<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-III/4 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/4 of the STCW Code.

#### 5.4 Able Seafarer Engine

The applicant for an “Able Seafarer Engine” certificate of competency can demonstrate that they meet the required competence, knowledge, understanding and proficiency of STCW Code table A-III/5 by completing either (a), or (b) and (c):

- a. an approved Able Seafarer Engine training program; or
- b. an approved training record book, and
- c. the following approved training courses:
  - i. Practical Skills for the Engineering Department Module 1, Repair and Maintenance,
  - ii. Practical Skills for the Engineering Department Module 2, Welding, and
  - iii. Practical Skills for the Engineering Department Module 3, Machine Shop.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency described in table A-III/5 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-III/5 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in column 2 of table A-III/5 of the STCW Code.

#### 5.5 Ship’s Cook – Maritime Labour Convention, 2006

1. The applicant for a “Ship’s Cook – Maritime Labour Convention, 2006” certificate of competency can demonstrate that they meet the required competence, knowledge, understanding and proficiency by completing either (a) or (b):
  - a. successful completion of an approved Ship’s Cook training course, or
  - b. successful completion of training in culinary practices which the Minister determines meets the requirements of an approved Ship’s Cook training course in culinary practices.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
<p>The applicant must be competent to undertake the following tasks, duties and responsibilities:</p> <p>The conduct and performance of galley operations including safe and hygienic preparation, storage, and serving of food, maintaining sanitation in galley, storage areas, and mess rooms; prevention of food borne disease, menu planning and logistics,</p>	<p>The applicant must have acquired the knowledge, understanding and proficiencies required to competently perform the tasks, duties and responsibilities of a Ships’ Cook.</p> <ul style="list-style-type: none"> <li>- Practical cookery</li> <li>- Galley administration, management and supervision</li> <li>- Prevention of food borne disease</li> <li>- Food hygiene</li> <li>- Personal hygiene</li> <li>- Nutrition and balanced menus</li> </ul>

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maintaining workplace health and safety standards, the preparation, cooking, baking, and serving of meals.	<ul style="list-style-type: none"> <li>- Religious and cultural aspects</li> <li>- Basic language, calculation and communication skills</li> <li>- Workplace safety and health</li> <li>- First aid in the galley</li> <li>- Fire fighting in the galley</li> <li>- Waste control and handling</li> </ul>
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## Chapter 6 - Certificates of Proficiency

### 6.1 Basic Training for Personnel on Ships Operating in Polar Waters

The applicant for a “Basic Training for Personnel on Ships Operating in Polar Waters” certificate of proficiency can demonstrate that they meet the required competence, knowledge, understanding and proficiency of Table A-V/4-1 of the STCW Code by completing an approved Basic Training for Service on Vessels Operating in Polar Waters course.

The method required to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table, and that they have acquired the knowledge, understanding and proficiency described in table A-V/4-1 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-V/4-1 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in Column 2 of table A-V/4-1 of the STCW Code.

### 6.2 Advanced Training for Personnel on Ships Operating in Polar Waters

The following table sets out the competencies and related knowledge, skill and understanding that a person must possess for an Advanced Training for Personnel on Ships Operating in Polar Waters certificate of proficiency.

The applicant for a “Basic Training for Personnel on Ships Operating in Polar Waters” certificate of proficiency can demonstrate that they meet the required competence, knowledge, understanding and proficiency of Table A-V/4-2 of the STCW Code by completing an approved Advanced Training for Service on Vessels Operating in Polar Waters course.

The method **chosen / required** to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table, and that they have acquired the knowledge, understanding and proficiency described in table A-V/4-2 of the STCW Code, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-V/4-2 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in Column 2 of table A-V/4-2 of the STCW Code.

### 6.3 High-Speed Craft and Air Cushion Vessel Certificates of Proficiency:

The applicant for a certificate of proficiency under sections 1072, 1073, 1074, 1075, and 1076 can demonstrate that they meet the required competence, knowledge, understanding and proficiency of the tables by:

- a. in the case of an applicant for a High-Speed Craft Type Rating certificate of proficiency issued under MPR, 2023, section 1072:
  - i. Holding a certificate evidencing that training related to the knowledge, skill and understanding indicated in the table below has been received, and

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- ii. Obtaining a 70 percent grade or more on the TC practical examination for a High-Speed Craft Type Rating.
- b. in the case of an applicant for an Air Cushion Vessel Type Rating – Deck certificate of proficiency issued under MPR, 2023, section 1073:
  - i. Holding a certificate evidencing that training related to the knowledge, skill and understanding indicated in the table below has been received, and
  - ii. Obtaining a 70 percent grade or more on the TC practical examination for an Air Cushion Vessel Type Rating
- c. in the case of an applicant for an Air Cushion Vessel Type Rating –Engine certificate of proficiency issued under MPR, 2023, section 1074:
  - i. Holding a certificate evidencing that training related to the knowledge, skill and understanding indicated in the table below has been received, and
  - ii. Pass a TC oral examination and a TC practical examination Air Cushion Vessel Type Rating
- d. in the case of an applicant for an Air Cushion Engineer Class I certificate of proficiency issued under MPR, 2023, section 1075:
  - i. Holding a documentary evidence that training required under MPR 2023, section 1075(d) has been received, and
  - ii. Pass the TC written examination for General Engineering Knowledge of an Air Cushion Engineer Class I
- e. in the case of an applicant for an Air Cushion Engineer Class II certificate of proficiency issued under MPR, 2023, section 1076:
  - i. Holding documentary evidence that training required under MPR 2023, section 1076(c) has been received, and
  - ii. Pass the TC written examination for General Engineering Knowledge of an Air Cushion Engineer II.

The method chosen to demonstrate that the applicant possesses the desired qualifications must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the following table and that the applicant has acquired the knowledge, understanding and proficiency described in section 18.3.3 of the HSC Code, as associated with that competence.

**Table 1 High-Speed Craft Type Rating  
Air Cushion Vessel Type Rating — Deck**

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities related to the applicant's operational role.	<p>The candidate must have acquired the knowledge, understanding and proficiency listed in section 18.3.3 of the HSC Code as they pertain to the candidate's operational role:</p> <ul style="list-style-type: none"> <li>.1 knowledge of all on-board propulsion and control systems, including communication and navigational equipment, steering, electrical, hydraulic and pneumatic systems and bilge and fire pumping;</li> <li>.2 the failure mode of the control, steering and propulsion systems and proper response to such failures;</li> <li>.3 handling characteristics of the craft and the limiting operational conditions;</li> <li>.4 bridge communication and navigation procedures;</li> <li>.5 intact and damage stability and survivability of the craft in damage condition;</li> <li>.6 location and use of the craft's life-saving appliances, including survival craft equipment;</li> </ul>

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	<p>.7 location and use of escapes in the craft and the evacuation of passengers;</p> <p>.8 location and use of fire protection and fire-extinguishing appliances and systems in the event of fire on board;</p> <p>.9 location and use of damage control appliances and systems, including operation of watertight doors and bilge pumps;</p> <p>.10 cargo and vehicle stowage and securing systems;</p> <p>.11 methods for control of and communication with passengers in an emergency; and</p> <p>.12 location and use of all other items listed in the training manual.</p>
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**Table 2 ACV Type Rating - Engine**

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities related to the applicant's operational role in respect of the vessel to which the application relates	<p>The candidate must have acquired the knowledge, understanding and proficiency listed below as they pertain to the operation and maintenance of the ACV to which the application relates:</p> <ul style="list-style-type: none"> <li>- knowledge of the arrangement, function and operation of the propulsion and lift systems, fuel systems, cooling systems, water pumping systems, lubrication systems, instrumentation and control systems, electrical power generation and distribution generation systems, steering, hydraulic and pneumatic systems, bilge and fire-fighting and detection systems.</li> <li>- knowledge and operation of fuel handling systems, procedures to prevent pollution, and pollution incident response.</li> <li>- abilities to prepare the vessel systems for operation, monitor during operation and secure from operation, and record system operating conditions</li> </ul>

**Table 3**

**ACV Engineer Class I – General Engineering Knowledge of ACV of 750 kW or more and less than 2 500 kW total propulsive and lift power.**

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities of an engineer operating and performing maintenance of board an ACV in the power ranges in respect of the certificate to which the application relates.	
Use of an official language	Adequate knowledge of one of the official languages to enable the applicant to communicate clearly and understand others.
Safe working practices	Work procedures and precautions necessary to prevent hazards and maintain safe working conditions. Safe working practices as related to ACV operations. Recognition of hazards. Precaution before entering an enclosed Space.
Safety and emergency procedures	Safety precautions to be observed during a watch. Immediate action to be taken in the event of an emergency. Emergency procedure to

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	take over various systems, in case of their failure. Engineroom alarm systems and ability to distinguish between various alarms.
Pollution prevention	Basic principles of pollution prevention laws and regulations applicable to Canadian ships; pollution prevention procedures, including fuelling operations, discharge of bilge and ballast water. Knowledge of the precautions to be taken to prevent pollution of marine environment; procedure for monitoring shipboard operations and ensuring compliance with requirements.
Watchkeeping procedures and related routine duties	Procedure for conducting a watch; terms used on ACV and names of machinery and equipment; routine duties carried out during a watch or a pre departure inspection or procedure; recording of movements and activities related to ACV machinery; recording of significant readings and understanding of their importance; use of appropriate internal communication systems.
Main and auxiliary machinery and associated control systems	Monitoring of main and auxiliary machinery is planned and carried out in accordance with established rules and procedures to ensure safety of operation and avoid pollution of marine environment. Preparation for start-up. Identification of common faults and action necessary to prevent damage; the causes of machinery malfunctions are promptly identified and actions are designed to ensure the overall safety of the ship and the plant, having regard to the prevailing circumstances and conditions.
Pumping systems and associated control systems	Monitoring of pumping systems is planned and carried out in accordance with established rules and procedures to ensure safety of operation and avoid pollution of marine environment. Routine pumping operations; operation of bilge, ballast and cargo pumping systems. Emergency procedures related to pumping activity. Cause of Water Hammer.
Alternators, generators and control systems	Monitoring is planned and carried out in accordance with established rules and procedures to ensure safety of operation; preparation for start-up; Identification of common faults and action to prevent damage to generating plant or control systems. The causes of machinery malfunctions are promptly identified and actions are designed to ensure the overall safety of the ship and the plant, having regard to the prevailing circumstances and conditions. Power Failure and emergency power procedure.
Lubricants	Basic knowledge of lubricants used on ACV; types of lubricant, storage, transfer, heating, cooling, filtration, purification and disposal of lubricants.
Fuels	Basic knowledge of fuels used on ACV; type of fuel, storage, transfer, heating, filtration, and purification.

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## **Chapter 7 –Training Certificates for Personnel OnBoard Passenger-Carrying Vessels**

### **7.1 Passenger Ship Crowd Management**

The applicant for a “Passenger Ship Crowd Management” training certificate must demonstrate that they meet the required competence, knowledge, understanding and proficiency of STCW Code table A-V/2-1 by successfully completing an approved training course in passenger ship crowd management.

The applicant must demonstrate that they possess the competence to undertake the tasks, duties and responsibilities of the following table and that they have acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-V/2-1 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in Column 2 of table A-V/2-1 of the STCW Code.

### **7.2 Safety Training for Personnel Providing Direct Service to Passengers in Passenger Spaces**

The applicant for a “Safety Training for Personnel Providing Direct Service to Passengers in Passenger Spaces” training certificate must demonstrate that they meet the required competence, knowledge, understanding and proficiency of regulation 2 in section A-V/2 of the STCW Convention by successfully completing an approved training course in safety training.

The applicant must demonstrate that they possess the competence to undertake the tasks, duties and responsibilities of the following table and that they have acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities specified in section A-V/2 regulation 2 of the STCW Convention.	The applicant must have acquired the knowledge, understanding and proficiency specified in section A-V/2 regulation 2 of the STCW Convention.

### **7.3 Crisis Management and Human Behaviour**

The applicant for a “Crisis Management and Human Behaviour” training certificate must demonstrate that they meet the required competence, knowledge, understanding and proficiency of STCW Code table A-V/2-2 by successfully completing an approved training course in crisis management and human behaviour.

The applicant must demonstrate that they possess the competence to undertake the tasks, duties and responsibilities of the following table and that they have acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in column 1 of table A-V/2-2 of the STCW Code.	The applicant must have acquired the knowledge, understanding and proficiency listed in Column 2 of table A-V/2-2 of the STCW Code.



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#### 7.4 Passenger Safety, Cargo Safety and Hull Integrity

The applicant for a “Passenger Safety, Cargo Safety and Hull Integrity” training certificate must demonstrate that they meet the required competence, knowledge, understanding and proficiency of regulation 5 in section A-V/2 of the STCW Convention by successfully completing an approved training course in Passenger Safety, Cargo Safety and Hull Integrity.

The applicant must demonstrate that they possess the competence to undertake the tasks, duties and responsibilities of the following table and that he or she has acquired the knowledge, understanding and proficiency, as associated with that competence.

<b>Competence</b>	<b>Knowledge, Understanding and Proficiency</b>
The applicant must be competent to undertake the tasks, duties and responsibilities listed in in section A-V/2, regulation 5 of the STCW Convention.	The applicant must have acquired the knowledge, understanding and proficiency described in section A-V/2, regulation 5 of the STCW Convention.

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## **Chapter 8 - Mobile Offshore Unit Certificate of Competency Qualifications**

- Mobile Offshore Unit
- Offshore Installation Manager, MOU/Surface
- Offshore Installation Manager, MOU/FPSO
- Barge Supervisor, MOU/Surface
- Barge Supervisor, MOU/FPSO
- Barge Supervisor, MOU/Surface
- Ballast Control Operator
- Maintenance Manager MOU/Surface

The applicant for a Mobile Offshore Unit certificate of competency for which a qualification appearing in column 1 of the table below is required, must demonstrate that they meet that requirement by meeting the corresponding requirements listed in column 3.

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the corresponding operational position and that the applicant has acquired the knowledge, understanding and proficiency described in column 2 of the table as associated with that competence.

**Table – Manner of Demonstration**

<b>Item</b>	<b>Qualification</b>	<b>Knowledge, Understanding and Proficiency</b>	<b>Manner of Demonstration</b>
1	Basic Offshore Survival	IMO Resolution A.1079(28) Tables 5.5.1 to 5.5.5 IMO Resolution A.1050(27)	Hold a recognized certificate in Basic Offshore Survival and Hold a recognized certificate in enclosed space safety
2	Hydrogen Sulfide Safety	Hazards of Hydrogen Sulfide, detection, monitoring, and emergency response	Hold a recognized certificate in Hydrogen Sulfide Safety
3	Command and Control of Major Emergencies	IMO Resolution A.1079(28) Table 6.2	Hold a recognized certificate in Command and Control of Major Emergencies
4	Stability - Introduction	IMO Resolution A.1079(28) Tables 6.2, 6.3 and 6.4	Hold a recognized certificate in Basic Stability of Ships and Mobile Offshore Units or hold an STCW Regulations II/1 or II/2 certificate of competency
5	Stability – Surface and Column Stabilized	IMO Resolution A.1079(28) Tables 6.2, 6.3 and 6.4	Hold recognized certificate in 1. Stability of Surface and Column-Stabilized MOU.
6	Stability – Self-elevating	IMO Resolution A.1079(28) Tables 6.2, 6.3 and 6.4	Hold recognized certificate in Stability of Self-elevating MOU.
7	Well Control	IMO Resolution A.1079(28) Tables 6.2 and 6.3	Hold a recognized certificate in 1. Supervisor Well Control or 2. Well Control - Production Units
8	Meteorology for MOU	IMO Resolution A.1079(28) Table 6.2	Hold an STCW Regulation II/2 certificate of competency, or Hold a recognized certificate in Meteorology for MOU
9	Navigation Safety Level 1	Syllabus NS 1 TP 2293	Pass an examination in Navigation Safety (NS 1)

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10	General Seamanship of MOU	IMO Resolution A.1079(28) Tables 6.2 and 6.3	Pass an oral examination in the general seamanship of MOU
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- Mobile Offshore Unit/Self-elevating
- Offshore Installation Manager, MOU/Self-elevating
- Barge Supervisor, MOU/Self-elevating
- Maintenance Supervisor, MOU/Self-elevating

The applicant for a Mobile Offshore Unit/self-elevating certificate of competency for which a qualification appearing in column 1 of the table below is required, must demonstrate that they meet that requirement by meeting the corresponding requirements listed in column 3

The method used to demonstrate that the applicant possesses the desired qualification must adequately assess whether that applicant is competent to undertake the tasks, duties and responsibilities of the corresponding operational position and that the applicant has acquired the knowledge, understanding and proficiency described in column 2 of the table as associated with that competence.

Item	Qualification	Knowledge, Understanding and Proficiency	Manner of Demonstration
1	Basic Offshore Survival	IMO Resolution A.1079(28) Tables 5.5.1 to 5.5.5 IMO Resolution A.1050(27)	Hold a recognized certificate in Basic Offshore Survival and Hold a recognized certificate in enclosed space safety
2	Hydrogen Sulfide Safety	Hazards of Hydrogen Sulfide, detection, monitoring, and emergency response	Hold a recognized certificate in Hydrogen Sulfide Safety
3	Command and Control of Major Emergencies	IMO Resolution A.1079(28) Table 6.2	Hold a recognized certificate in Command and Control of Major Emergencies
4	Stability - Introduction	IMO Resolution A.1079(28) Tables 6.2, 6.3 and 6.4	Hold a recognized certificate in Basic Stability of Ships and Mobile Offshore Units or hold an STCW Regulations II/1 or II/2 certificate of competency
5	Stability – Self-elevating	IMO Resolution A.1079(28) Tables 6.2, 6.3 and 6.4	Hold recognized certificate in Stability of Self-elevating MOU.
6	Well Control	IMO Resolution A.1079(28) Tables 6.2 and 6.3	Hold a recognized certificate in Supervisor Well Control
7	Meteorology for MOU	IMO Resolution A.1079(28) Table 6.2	Hold an STCW Regulation II/2 certificate of competency, or Hold a recognized certificate in Meteorology for MOU
8	Navigation Safety Level 1	Syllabus NS 1 TP 2293	Pass an examination in Navigation Safety (NS 1)
9	General Seamanship of MOU	IMO Resolution A.1079(28) Tables 6.2 and 6.3	Pass an oral examination in the general seamanship of MOU
10	General engineering knowledge of MOU.	IMO Resolution A.1079(28) Table 6.5	Pass an oral examination in the general engineering knowledge of MOU

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## **Chapter 9 - Course and Program Approval**

### **9.1 Submission**

- (1) A training institution that requests recognition to provide a course or program for any course required by these regulations must submit an application to the Director of Marine Safety Certification and Standards or a designated representative for approval. The proposal must:
  - cover all the topics in the relevant standards or Transport Canada publications, as amended from time to time;
  - include a detailed outline in a learning objective format, explaining the depth of knowledge required and the means by which students demonstrate the knowledge, skills or competency achieved; and
  - explain the method of preparing the course or program, along with the various inputs and assessment methods.
- (2) The training institution must provide its publications containing the list of courses that it offers and the diplomas that it grants, as well as general information such as campus description, services to students and available activities, so as to describe its full range of activities and show how its work relates to the Marine program.

### **9.2 Notice of Approval**

- (1) If the application is successful, the Director or designated representative will issue a notice of approval containing terms and conditions permitting the delivery of the course or programs, and automatically designates the training institution as a Recognized Institution (RI).

### **9.3 Assessment Process**

- (1) At any time, the provider of a training course or program will submit to a site visit by Transport Canada to carry out an assessment of the course or program.
- (2) An auditing examiner from Transport Canada will carry out the assessment during delivery of the course or program, at the institution, to observe the course presentation and evaluate and approve its administration and delivery. If the examiner finds it satisfactory, according to the *Marine Personnel Regulations, 2023* the Director of Marine Safety Certification and Standards or designated representative will give formal approval via letter.

### **9.4 Instructor Approval**

#### **9.4.1 Subject-matter Qualifications**

- (1) The learning activity must be delivered by instructors who are suitably qualified and experienced in their profession. For a course specifically dealing with marine matters, the instructor must hold a Certificate of Competency at least at the level being taught. For courses that are not marine-related, the qualifications and experience of the instructor must relate to the subject being taught, and will be assessed in accordance with legislation that applies to these instructors.
- (2) In the case of specialized marine training courses such as Marine Emergency Duties or Tanker Safety, the main course instructor, in addition to holding qualifications for teaching, must have received training as an assistant instructor for two courses and then have taught a third course under the supervision of a main course instructor.

#### **9.4.2 Experience and Teaching Qualifications**

- (1) All instructors must have experience in course and curriculum development or have attended a course on this subject. Program instructors must hold teaching qualifications incorporating training in

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instructional techniques, educational technology and evaluation methods. These qualifications may be obtained through a:

- a) federal government department in Canada, or an overseas government that operates a recognized teacher training program;
- b) provincially accredited post-secondary education institution in Canada; or
- c) firm in Canada recognized by the federal or a provincial government that provides education and training or educational technology consulting services.

## **9.5 Institution Approval**

### **9.5.1 Learning Environment- Suitability of Marine Training Institutions**

- (1) To provide a suitable teaching environment, an institution must be equipped for all academic, laboratory and practical work required by the TC-approved marine training course/program content.
- (2) Up-to-date reference materials and recommended textbooks on Marine programs and related topics must be available to all teaching staff and students.

### **9.5.2 Course or Program Design of a Recognized Institution**

- (1) The design of the course or program must follow the IMO model course format, as contained in the IMO document *Guidance on the implementation of IMO model courses*, or some other format Transport Canada approves as equivalent.
- (2) A RI may incorporate Simulated Electronic Navigation (SEN) or Propulsion Plant Simulator courses in its program. However it must then arrange for Marine Safety & Security examinations and issue the applicable training certificate for such courses in addition to the graduation diploma.

### **9.5.3 Compliance With TC Regulated Publication Program Content**

Institutions that wish to be recognized for a program should view the content of the relevant Transport Publication (TP) as the minimum requirement with respect to equipment, subject areas, and total number of hours of student-teacher contact. With respect to the knowledge to transfer, the overall program objectives and course goals set out in the TP represent the minimum requirement. The Institution must include in its program all subjects mentioned in the TP, but it may apportion the content differently on the basis of its process for continuous improvement and client feedback, to keep its program up to date.

### **9.5.4 Attendance**

The RI must publish and enforce a clear policy on student attendance at classes. Students must have a minimum of 90% attendance.

### **9.5.5 Quality Management System (QMS)**

The RI must operate under a QMS that meets the requirements of Regulation I/8 of the STCW Convention, as amended.

### **9.5.6 Admissions and Pass/Fail Criteria**

- (1) There must be a formal admission process for students entering a marine training program. The students must be qualified for admission on the basis of experience or previous studies.
- (2) The RIs must base student evaluations on the expected outcomes of the training, using objective evaluation methods.

Students must demonstrate evidence of:

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- knowledge transfer, through assignments and examinations; and
- skills, through practical demonstrations done to required standards.

RIs must use a marking scheme. The passing mark must be specified in the course or program description, and should correspond to the passing marks required in the examinations administered by Marine Safety and Security, according to Section 4.3, Chapter 4 of TP 2293 - The Examination and Certification of Seafarers.

(3) If the RI determines that the nature of the subject requires a higher passing mark than that specified in subsection 2, or requires a specific frequency of attendance, this must be clearly stated in the course description.

(4) The instructor of each course must keep attendance and evaluation records.

### **9.5.7 Periodic Approval and Revalidation of Courses and Programs**

Course and program approvals are subject to a periodic revalidation. The Director, or a designated representative, issues renewals on written request when the conditions are unchanged and the course or program has been offered at least once in the past two years. In other cases, an audit is required when the course or program resumes.

## **9.6 Documentation**

### **9.6.1 Issuing of Certificates**

RIs must issue a training certificate to successful students for each training course and program they successfully complete. Training certificates must be signed by the instructors and the Director of the RI, who have been duly approved and authorized by TC. The RI must:

- keep a copy of the training certificate for eventual audits; and
- send the list of successful applicants to the nearest TCMSS Examination Centre for processing in the ACES data bank.

## **9.7 Audit of Recognized Institutions**

### **9.7.1 Function**

- (1) TC's Auditing of RIs is part of the process of maintaining approved training course and program status.
- (2) The purpose of auditing is to:
  - a) ensure compliance with the RI's quality standards, management systems and procedures;
  - b) assess the effectiveness of learning activities;
  - c) assess the effectiveness of staff members involved in these activities;
  - d) ensure the RI uses feedback and other mechanisms to achieve continuous improvement; and
  - e) provide information on technical and operational changes that may affect the RI.

### **9.7.2 Institution Coordinator**

- (1) The RI will designate a coordinator to liaise with Marine Personnel Standards, and Medicine -AMSP. The coordinator will:
  - demonstrate that the facilities and equipment conform to requirements;
  - provide lists of teachers and support staff, student records and other items that may be called for during an audit;

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- make available course training plans or course descriptions, as well as details of the RI's internal audits, and will make changes as necessary to meet TC requirements; and
  - advise the Director of any changes, as they occur, to facilities, teaching staff or teaching materials.
- (2) The RI will ensure that the coordinator keeps detailed records of internal audits for at least five years so that they are available to TCMSS auditors.

### 9.7.3 Audit Schedule and Method

- (1) The Division (Marine Personnel Standards, and Medicine - AMSP) will prepare a five-year schedule of audits covering each RI offering approved courses and programs.
- (2) The Division and the RI will arrange an audit.
- (3) The audit team will prepare an audit schedule and a checklist to ensure that all operations are reviewed. The lead auditor is responsible for:
  - .1 making the detailed plan of the actual audit;
  - .2 ensuring that the audit team is fully acquainted with information pertinent to the audit;
  - .3 ensuring audit interviews and meetings, etc., follow the Procedures, and assigning and maintaining overall responsibility over the other team members conducting such interviews, meetings, etc.;
  - .4 preparing and completing the audit reports (interim and final);
  - .5 reporting details of any finding and/or observation to the audited recognized institution;
  - .6 preparing and agreeing with the audited RI, the executive summary report to submit to the Director; and
  - .7 conducting a follow-up audit, as appropriate.
- (4) The audit will begin with an opening meeting at which the lead auditor will explain the audit scope and procedure. The audit will include a tour of the facility and an inspection/review of:
  - a) the RI's calendars and other general material describing the institution, including its policies and mission statement;
  - b) the RI's organization chart, information on committee and advisory body members and on administrative and operating systems, descriptions of training facilities and equipment, and details of academic and training strategies;
  - c) course descriptions and lesson plans including evaluation methods; (auditors make a specific check to ensure that all required subjects listed in the applicable TP are covered in the course or program);
  - d) learning resources centre, including library and computer facilities;
  - e) teacher and teaching support staff qualifications and experience; training opportunities for developing teaching and professional skills; appraisal and promotions methods;
  - f) outlines of policies and procedures on student admission, existing courses, new course development, and staff involvement in research and development;
  - g) methods of evaluating students, their entitlement to re-write examinations, and the process for appealing their results;
  - h) student attendance records;
  - i) the teaching environment in terms of student and teacher interaction, support for students with academic problems and constructive evaluation methods;
  - j) counselling and support methods; and
  - k) for each course; the workload of each teacher, student-teacher ratios, passing marks, and the industry and student feedback process used to promote continuous improvement.

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- (5) The RI will ensure that the audit team has full access to its facilities and to the items referred to in (4), and designate a person to assist the audit team with such access at all times.

#### **9.7.4 Auditor's Interim and Final Reports**

- (1) The audit will conclude with a closing meeting with RI management. The audit team leader will present an interim report on its findings and invite the RI to comment. Once the comments are received, the lead auditor will prepare a final report for the Director and subsequently, submit the report to the RI. The report will:
  - a) include brief background information about the Institution or training program;
  - b) be complete, fair and accurate;
  - c) describe the auditors' evaluation procedure;
  - d) highlight the RI's strengths and weaknesses;
  - e) indicate the extent of compliance or non-compliance with the requirements of the STCW Convention, as amended, STCW-F 95, and the effectiveness of the QMS in achieving defined objectives;
  - f) clearly spell out the areas found deficient in relation to the STCW Convention, this document, and the applicable TP, and offer suggestions for improvement and provide any other comments the auditors consider relevant;
  - g) establish time lines within which the RI must correct any areas of non-compliance; and
  - h) include plans for a follow-up visit to check that any areas of non-compliance have been corrected.
- (2) The audit team leader must forward a copy of all audits and follow-up assessments to the Department of Transport, to the attention of the Director, Marine Personnel Standards, Pilotage and Medicine within two months of the date of the audit or the follow-up visit.

#### **9.7.5 Management Review Meeting**

The Director will present the results of the audits, the status of outstanding issues relating to earlier audits, and any recommendations for program improvement or change at the management review meeting of Marine Personnel Standards, Pilotage and Medicine.

#### **9.7.6 Report to IMO Secretary General**

Within 6 months of the date the audit schedule referred to in subsection 7.3(1) is complete, the Director General, Marine Safety & Security, will submit a summary of the audit reports to the Secretary General of the IMO. The summary will cover audit follow-ups as well as the status of outstanding issues relating to earlier audits.