1.0 INTRODUCTION

This standard outlines the requirements for marine activities, including the roles and responsibilities of personnel performing marine work on behalf of NB Power. It offers guidelines for safeguarding life, property, and the environment from the hazards and risks associated with marine activities.

NB Power complies with the federal, provincial, and New Brunswick legislation framework governing marine safety. It incorporates the Canada Shipping Act, 2001 (CSA 2001), Transport Canada Regulations, and related legislation that apply to small vessels and associated equipment conducting marine work for NB Power.

Marine work activities can take place under challenging conditions near bays, rivers, and other bodies of water, including dams and flood zones where we operate. This standard offers guidance to properly manage risks related to marine work, ensuring the safety of individuals working at NB Power sites. It applies to diving activities in coordination with the HSEE-03-22 Diving and Underwater Operations.pdf, as well as to site-specific diving procedures and processes that have been approved.

2.0 SCOPE

NB Power and Contracted Personnel are expected to implement the requirements of this standard effectively. In some situations, collaboration may be required to ensure the effective implementation of this standard.

There are four defined types of voyage classes when referring to marine work:

1. Shelter Waters Voyage
2. Near Coastal Voyage (Class 1),
3. Near Coastal Voyage (Class 2),
4. Unlimited Voyage.

Marine work activities for NB Power will generally fall into the category of Sheltered Waters Voyage, which is defined as a voyage that is in Canada on a lake or a river above tidal waters, where a vessel can never be further than one nautical mile from the shore, or that is on the waters listed in Schedule 1 and Schedule 2 of the Vessel Certificates Regulations.

This standard outlines the requirements and fundamental safety requirements for conducting marine activities, including work on bodies of water along shorelines, marine staging areas, vessel launches, and docks. Also included in this standard is marine work at our stations and facilities, where we conduct operations, such as head ponds, gate locations, and vaults.

When planning the marine work activities, a Water Rescue Plan must be developed. This plan would consider the type of work, water hazards, and risks associated with the work location, i.e., working in Fundy Bay with a strong current along a rocky shoreline, compared to operating a vessel on a calm day at the Mactaquac Head pond. In addition, this standard covers specific hazards and risks associated with working on and around vessels, including Line-of-Fire hazards from marine activities and rigging activities that the buoyancy and motion of marine vessels can further complicate.

This standard applies to all NB Power work involving marine activities and water operations, utilizing small vessels and larger vessels. Which could include, but are not limited to,

- Installation, inspection, or maintenance of NB Power assets (e.g., submerged electrical cables).
- Work activities on small vessels and barges, including cranes, rigging, launching, docking, and securing mooring lines.
- Diving operations, such as assisting with stoplog activities, hydrographic surveys and diving construction.
- Transport of personnel and equipment.
- Environmental protection and monitoring.

3.0 REFERENCES

Canada Shipping Act 2001	Small Vessel Regulations SOR/2010-91
NB OHS General Regulation 91-191	Part VII Water Safety Equipment
Transport Canada Marine Regulations	The regulations are wide-ranging, setting updated requirements regarding structural strength, stability, machinery, electrical systems, lifesaving equipment, crew accommodations, and fire protection on vessels without mechanical means of propulsion.

4.0 TERMS AND DEFINITIONS

Captain	The individual is responsible for the safety of the vessel, its operation, and the crew. Unrelated to specific work operations (e.g. electrical disconnect).
Competent Person	A person who is qualified, based on knowledge, training and experience, to do the work assigned in a manner that will ensure the health and safety of persons.
Compliance Notice	The manufacturers or importers' confirmation that the vessel is built in accordance with the construction requirements set out in the Small Vessel Regulations.
Door-to-Door	For Operations Field staff, door-to-door refers to when an employee: • leaves home until they return home if on call for a Replacement Worker Unplanned (RWU) or for an outlying CSR. • from when they arrive at the office until they leave the office, if not on call.
Embarking and Disembarking	• Embarking: The process by which passengers or crew board a vessel. • Disembarking: The process by which passengers or crew members leave a vessel.

Energy-Based Hazard Recognition	NB Power is currently adopting an Energy Based Hazard Recognition (EBHR) as a field aid to the employees to identify all present energy sources, while the high-energy icons help to recognize the energies that, if not controlled, could cause a significant injury or life altering event.
Major Modification of a Small Vessel or Vessel	A modification or repair or a series of modifications or repairs that Substantially changes the capacity or size of a vessel or the nature of a system on board a vessel, that affects its watertight integrity or its stability or, except in the case of the restoration of an antique wooden pleasure craft, that substantially increases its service life (Small Vessel Regulations, Part 7)
Passengers	Defined by Transport Canada as anyone not part of the crew or normally required for the vessel's operation. This includes colleagues being transported to a work site. People do not have to pay a “fare” to be considered passengers.
PCOC	Pleasure Craft Operators Certificate
Pemit Requirements	Before any voyages can commence, the Captain will be responsible for verifying with the facility or station of any permit requirements.
PLT	Power Line Technician
Power-Driven	In the context of a vessel, it means that an engine propels the vessel or has an engine mounted on the vessel to propel it.
Registration of Commercial Vessels	Registering a commercial vessel in New Brunswick, Canada, involves compliance with Transport Canada’s national regulations and the completion of **Vessel Registration Forms**.
Rescue Vessel	means a vessel designed to be used for rescuing persons in distress and marshalling survival craft and, for greater certainty, includes an emergency vessel that performs the same functions.
Safety Certificate	A document issued under the Minister (Transport Canada) for a vessel that has met the applicable technical requirements set out in regulations made under Part 4 of the CSA 2001.
SDV-BS	Small Domestic Vessel Basic Safety Training
SOLAS	Safety of Life at Sea
SVOP	Small Vessel Operator Proficiency
Watercraft	Any vessel or equipment not otherwise classified that might be used during water operations.

5.0 ROLES AND RESPONSIBILITIES

5.1 Employer

- Ensure compliance with the Canada Shipping Act and related regulations for commercially registered small vessels or vessels.
- Ensure workers involved in marine activities are properly trained and competent to carry out their tasks safely.
- Small vessels, vessels, and barges shall be commercially registered.

5.2 Captain

- The Captain of any small vessel or vessel engaged in water operations is responsible for the crew's safety. The exception is any electrical, mechanical, or other operations; these shall be the responsibility of the specialized person onboard (e.g., Power Line Technician).
- Ensure that small vessel inspections are completed; a sample Pre-use Checklist is included in Appendix B.
- Assess weather conditions and ensure the water conditions are safe for the intended voyage. Additionally, ongoing monitoring and suspension of water activities are implemented when there is a risk to people's safety, potential equipment damage, or adverse environmental impacts. The Sale Plan template is provided in Appendix I.
- Ensure a tailboard meeting is held before work commences. Depending on the work to be performed, any crew member may perform the tailboard.
- Ensure that personnel and equipment do not exceed the weight on the conformity label affixed to the small vessel to maintain stability.
- Ensure that all crew members are dressed in accordance with NB Power's Health & Safety standard HSEE-03-11 Personnel Protection Equipment (PPE).
- Give final approval for the vessel transportation to commence.
- Ensure the conditions on the deck, wheelhouse, gangways, and access areas are safe, accessible, and clear of obstructions.
- Can abort the operation at any time in relation to the safety and integrity of the vessel.
- Never moor a vessel below work activities.
- Launching vessels.

5.3 Supervisor Specialized Work:

- Responsible for their crew when working on marine vessels.
- Ensure that all workers have the necessary training and competence for their respective roles.
- To adhere to marine safety requirements, this may include, but is not limited to, embarking and disembarking from marine vessels and person-overboard situations.

5.4 Vessel Crew

The crew is responsible for the following:

- Adhere to all safety rules and practices. (e.g. PPE)
- Adhere to the direction given by the Captain.
- Conduct themselves in a manner that will not be a hazard to themselves or other

watercraft occupants.

- Can refuse unsafe work at any time (e.g. vessel transportation).

5.5 Specialized Vessel Crew

A specialized vessel crew refers to specialized or qualified personnel (e.g., Power Line Technicians, Mechanics, or inspectors) who are responsible for ensuring the overall safety of the work to be performed.

5.6 Total Health and Safety Department

Reserves the right to complete a comprehensive, independent, on-site inspection/audit and record of review.

6.0 STANDARD

NB Power operations require the use of small vessels for inspections, maintenance activities, diving, and flood response. Small vessel operations carry an elevated level of risk and must be mitigated to ensure the safety of crew and passengers working and travelling on small vessels and larger vessels.

Where more extensive operations with vessels are possible, they shall adhere to Federal Regulations and any additional requirements set by Transport Canada and NB Power.

The objective of this standard is to describe the requirements for small vessel operations.

The Small Vessel Regulations are governed by the Canada Shipping Act, 2001. These regulations outline the requirements for safety equipment, licensing of non-recreational watercraft, engine power and capacity, life jackets, Personal Flotation Devices (PFDs), pyrotechnic distress signals, fire extinguishers, and first aid kits.

Before departure, all people aboard should be thoroughly briefed on the location of safety equipment, its use, and the procedures to be followed in the event of abandoning the watercraft, including rescue procedures for a person overboard or any threat to the vessel's integrity. Safety measures should also include those related to the protection of limbs, the avoidance of ropes and docking lines, and the impact of movement and grouping of people on the vessel's stability.

Only vessels which comply with the Canada Shipping Act Small Vessel Regulations shall be used.

6.1 Planning

Pre-planning is a key element in a successful small vessel operation. Before using small vessel resources, affected parties must discuss and agree on a proper operations plan.

Conditions may change during small-vessel activities, and to minimize the impact of such changes, consideration will be given to those conditions which could have a significant effect on the operation, such as adverse weather, fog, snow, rain, squalls, and wind conditions, as well as changing water conditions, e.g., rough waters. Contingency plans for these possibilities must be established and discussed at planning and tailboard meetings, including the right to refuse unsafe work.

- During the planning stage, the aim shall be to minimize the number of small vessel operations and maximize the benefit from each operation. Tasks should be prioritized by evaluating risks.
- Clear contingency guidelines shall be highlighted at the tailboard meeting.
- The duration of the small vessel mission must be estimated based on conditions (e.g., temperature high/low, squalls, fog, daylight remaining, or shift changes).
- Only the minimum number of people required should be in a small vessel. The total number of people aboard should never exceed the vessel's safety rating.
- **Strong Winds and Small Craft Warnings**: Strong winds are defined as winds with sustained wind speeds in the range of 20 to 33 knots (approximately 37 to 61 km/h). Water surface conditions during a strong wind advisory are very rough with waves 3 to 6 m in height. It is not safe to operate a vessel in these conditions. As part of the pre-planning phase and development of the voyage plan, special consideration should be given to lightning and how this impacts the safety of on-water marine work, Government of Canada - Marine lightning safety

6.2 Contingency Planning

There shall always be contingency plans in place to cover breakdowns, accidents or significant changes of circumstances during small vessel operations. The contingency plan should consider the following.

- Person Overboard
- Water conditions (rough waters)
- Impacts of the work being conducted, with a specific focus on Energy-Based Hazard Recognition.
- Vessel collision (object or another vessel)
- Temperature (high/low- heat stroke/hypothermia)
- Communications failure (radio/mobile)
- Rescue operations and the method of getting the person to shore
- If working out on the water or at a remote location, a shore location should be predetermined where to meet emergency equipment, so personnel have easy access to perform a rescue or transport a victim to the hospital

6.3 Operational Safety Criteria

Show and tell your passengers how to react in an emergency. Give the briefing to all the crew and passengers.

You must inform all passengers:

- When personal flotation devices are required to be worn.
- How to correctly wear, secure, and operate each type of life jacket on board, including inflatable and hybrid life jackets.
- Where the life rafts are, if you have any, and where they are to gather to get on board the life raft (muster stations); and

- How can they reduce the effect of their movement on vessel stability and avoid potential hazards, such as ropes and docking lines? Whether you give a briefing verbally, distribute handouts with pictograms, use a recording, or show a video, you must demonstrate to your passengers how to put each type of life jacket on board. Keep your passengers safe by keeping them informed.

- At the tailboard meeting, all the elements that make up the safety and efficiency of the operation shall be highlighted. The areas to be highlighted shall include, but not be restricted to, the following:
  - The operation plan overview
  - Contingency plans
  - Worksite safety
  - Operating conditions (weather, etc.)
  - Duration
  - Communication Channels
  - PPE Checks
  - An opportunity for **any** personnel involved to raise **any** concerns that they may have.
  - Right to refuse unsafe work
- In periods when there are few operational radio calls, the captain is to give a radio/mobile status check at appropriate pre-agreed intervals. The person responsible for communications shall also check radio communications with the Small Vessel to see if there are longer than agreed check-in periods.
- The suggested check-in time from a vessel captain to communications is one hour.
- It is recommended that water activities cease one hour before sunset.

6.4 Construction Requirements

The construction requirements set the minimum safety standards. Anyone constructing a vessel that can be fitted with a propulsion engine, an auxiliary engine, or a fuel-burning appliance, whether for personal use or sale, must adhere to these construction standards. This applies whether you build the vessel for yourself or someone else. Similarly, vessel importers must ensure that the vessels they bring into the country comply with these same requirements.

The Small Vessel Regulations require the builder or the importer of a vessel for use in Canada to submit a Declaration of Conformity to Transport Canada and attach a compliance notice to the vessel unless:

- It has been built or imported for personal use or
- It is an open vessel of traditional construction that is not mass-produced and can only be fitted with an outboard engine.

6.5 Compliance Notices

A compliance notice must be attached to all new small commercial vessels. The builder, manufacturer, rebuilder or importer of the vessel must also prepare a Declaration of Conformity and give a copy of this declaration to the first owner of the vessel. Compliance notices are statements by the builder or importer declaring that the ship met the construction

requirements as they read on the date of construction, manufacture, rebuilding or importation of the vessel.

The compliance notice will indicate the vessel model, the builder or importer, the category of construction requirements and the design limitations, such as the ISO (International Organization for Standardization) design category for stability.

There are three vessel categories for compliance notices (see Table 6-1):

- not more than 6 metres long.
- more than 6 metres long – pleasure craft; and
- more than 6 metres long – non-pleasure vessels.

The construction requirements for vessels not exceeding 6 metres in length are the same for both pleasure craft and non-pleasure vessels. Compliance notices for vessels of this size will specify recommended safe limits for maximum capacity in kilograms and the number of persons. Additionally, if the vessel is designed for an outboard motor, details of the maximum power will be provided.

For vessels more than 6 metres long, the requirements for pleasure craft and non-pleasure vessels are not the same. Be aware that if you intend to use a vessel more than 6 metres long built to the pleasure craft requirements, it may have to meet additional construction requirements before you can use it commercially. Depending on the vessel's type and use, these may include a stability assessment, bilge pumping arrangements and additional fire safety equipment. Consider hiring a marine surveyor to see if your vessel complies with the non-pleasure vessel requirements and determine any required modifications you must make if you are unsure. Remember, when you put it in operation, you, as the owner, are responsible for ensuring your vessel meets all regulatory requirements.

Table 6 -1 Compliance Notice Information by Category

		Vessel Type	
		Pleasure Craft	**Non-Pleasure Vessels**
Length of Vessel	**More than 6 m**	Compliance Notice for Pleasure Craft • contains a statement of compliance with the construction requirements for pleasure craft at the time of construction • may contain a statement of design limitations that may apply to the vessel	Compliance Notice for Non-Pleasure Vessels • contains a statement of compliance with the construction requirements for non-pleasure vessels at the time of construction and indicates that the vessel may be used for both pleasure and non-pleasure purposes • contains a statement of any design or environmental limitations (e.g. ISO design categories[1]) that may apply to the vessel
	Less than or equal to 6 m	Generic Compliance Notice for both Pleasure Craft and Non-Pleasure Vessels • contains a statement of compliance with the construction requirements for small vessels at the time of construction; • contains recommended maximum safe limits[2] of the vessel for load, number of persons and engine power (if outboard powered) and the circumstances in which any of the recommended safe limits may not apply; and • may contain a statement of design limitations that may apply to the vessel *Note: Construction requirements for pleasure craft and non-pleasure vessels less than or equal to 6 metres are now identical.*	

Calculated according to the methods set out in the Construction Standards for Small Vessels

ISO Design Categories The International Organization for Standardization (ISO) has established four design categories for small craft: A, B, C and D. Assessment to the standard **ISO 12217** determines a vessel's design category. The design category establishes the environmental operating limits for stability and buoyancy, as shown in Table 6-2 below. Determine your vessel's design category from the builder to gain a better understanding of your vessel's stability limitations.

Table 6-2: ISO Design Category Environmental Limits

Design category	Wind force Beaufort scale (knots)	Wave height
A	exceeding 8 (54 knots)	exceeding 4 m significant*
B	up to, and including, 8 (41 knots)	up to 4 m significant*
C	up to, and including, 6 (33 knots)	up to 2 m significant*
D	up to, and including, 4 (25 knots)	0.5 **maximum**

* The significant wave height is the mean height of the highest one-third of the waves, which approximately corresponds to the wave height estimated by an experienced observer. Some waves will be double this height. (Not applicable to Design Category D, which uses **maximum** wave height.)

6.6 Modification of small vessels or vessels

For a vessel that has been put into service, the vessel owner is responsible for making sure that it meets Transport Canada construction requirements, including:

- The work complies with the non-pleasure craft requirements of the Small Vessel Regulations and
- The builder must be experienced in working with regulations and construction requirements.
- Starting April 29, 2011, the builder of new vessels must provide you with a Declaration of Conformity and the compliance notice attached to the vessel. The builder must also provide Transport Canada with a copy of the Declaration of Conformity and retain on file the technical documentation or information used, including the tests or calculations performed, to ensure compliance with the construction requirements.

When you make a major modification, you must notify Transport Canada, which may request that you provide plans or other technical information.

6.7 Pre-Launch Checks of Small Vessels

This pre-launch checklist serves as a guideline and must be completed before the mission commences; additional checks may be required, depending on the small vessel you are using. A detailed checklist has been provided in Appendix B.

6.8 Stability Reports

A Marine Stability Vessel Report is required for Small Vessels and Vessels operating at NB Power sites. It complies with Transport Canada's Stability Regulations and other maritime

safety standards and is necessary for new vessel construction, modifications, or periodic stability assessments.

6.9 Voyage Classes

- Sheltered Waters Voyage – a voyage that is in Canada on a lake or a river above tidal waters, where a vessel can never be further than one nautical mile from the shore, or that is on the waters listed in Schedules 1 and 2 of the Vessel Certificates Regulations.
- Near Coastal Voyage, Class 2 – a voyage other than a Sheltered Waters Voyage, during which the vessel is always within 25 nautical miles from shore in coastal waters of Canada, the United States (except Hawaii) or Saint Pierre and Miquelon, and within 100 nautical miles from a place of refuge.
- Near Coastal Voyage, Class 1 – a voyage that is not a Sheltered Waters Voyage or a Near Coastal Voyage, Class 2; that is between places in Canada, the United States (except Hawaii), Saint Pierre and Miquelon, the West Indies, Mexico, Central America or the northeast coast of South America; and during which the vessel is always north of latitude 6°N, and within 200 nautical miles from shore or above the continental shelf.
- Unlimited Voyage – a voyage that is not a Sheltered Waters Voyage or a Near Coastal Voyage.

6.10 Staging and Launching Small Vessels

- Ensure that your vessel trailer has the applicable provincial safety inspection. Ensure that the vehicle is used for towing operations and meets the requirements.
- Trailers must meet safety standards outlined in the New Brunswick Official Vehicle Inspection Station Manual. This includes ensuring that the frame, body, suspension, wheels, and tires are in good condition.
- Verify that the trailer’s coupling unit is free from cracks or excessive wear and that safety chains are appropriately sized and securely fastened. The hitch on the towing vehicle should be suitable for the trailer’s weight.
- Before moving the vessel trailer onto the vessel ramp, disconnect and remove tie-down straps (ensure the bow winch strap is left connected).
- Before moving the vessel trailer down the ramp, insert the drain plug and ensure it is tightened and securely in place.
- Inspect the ramp for hazards and ensure sufficient space for maneuvering. Position your vehicle and trailer in alignment with the ramp and use hazard lights to signal your intentions to others.
- When backing up the vessel trailer, utilize side mirrors and, if necessary, use a spotter to guide you. Ensure the trailer maintains a steady speed when backing down the vessel ramp.

- When submerging the trailer back until it's partially submerged, typically with the bunks or rollers halfway to two-thirds underwater, depending on the trailer design.
- Once in position, release the winch strap and gently push the vessel off the trailer or have someone operate it if it's powered.
- After launching, promptly move your vehicle and trailer to the designated parking area to allow others access to the ramp.
- Ensure your vessel carries the safety equipment Transport Canada requires, such as personal flotation devices, a first aid kit, and signalling devices.
- Familiarize yourself with safe vesseling practices, including trailering, launching, and loading procedures.

6.11 Communication Equipment

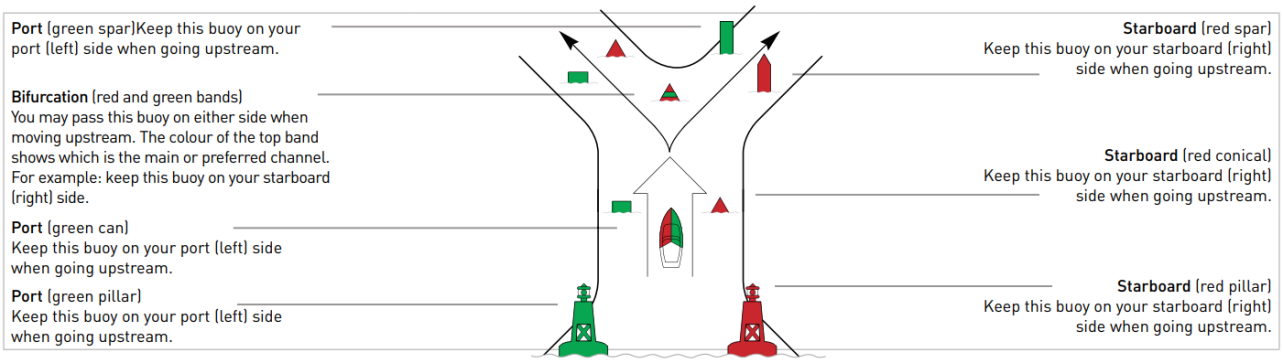
VHF Radio — Making a Distress Call (MAYDAY) or Early Notification (PAN PAN)

- Radio as distress alerting equipment is by far the best in terms of range and the ability to provide detailed information about the kind of problem you are facing. If you are not required to carry a radio, you might want to consider installing one simply for this reason. Remember, however, that any equipment that you have must be in good working order, even if it is not required by regulation.
- Two types of emergency radio signals are used: MAYDAY, for distress, and PAN PAN, for urgent messages. MAYDAY indicates a person or vessel is threatened by grave and imminent danger and requests immediate help. PAN PAN indicates a safety problem that does not require immediate assistance.
- The recommended call format includes the word MAYDAY (or PAN PAN) spoken three times, followed by the vessel's name (or other unique identifier), also spoken three times, then MAYDAY (or PAN PAN) and the name or identifier again. Vital information, including the position, nature of the emergency, assistance required and the number of people on board, should follow. A typical message might be:
- "MAYDAY, MAYDAY, MAYDAY, this is NONSUCH, NONSUCH, NONSUCH. MAYDAY, NONSUCH. Position 54 25 North 016 33 West. My vessel is on fire and sinking. I require immediate assistance. Four people on board are taking a life vessel. OVER."
- It is strongly recommended that you report any situation that may present a danger to life without delay. Early notification can be crucial to a positive outcome. You can use the PAN PAN radio signal for this purpose.

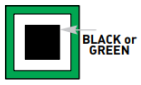
6.12 Buoys

Buoys are indispensable guides for safe navigation. Below are descriptions and explanations of some of the most common buoys.

LATERAL BUOYS



STANDARD DAYBEACONS

			
Port Hand When going upstream, keep a port hand daybeacon on your port (left) side.	**Starboard Hand** When going upstream, keep a starboard hand on your starboard (right) side.	**Junction** (Preferred channel to right) This daybeacon marks a point where the channel divides and you may pass it on either side. If you want to take the channel to your right, keep this daybeacon on your port (left) side.	**Junction** (Preferred channel to left) This daybeacon marks a point where the channel divides and you may pass it on either side. If you want to take the channel to your left, keep this daybeacon on your starboard (right) side.

Fairway Buoys

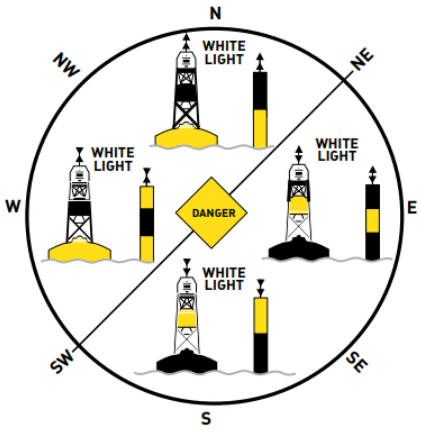
A fairway buoy marks safe water at landfalls, channel entrances or channel centres. When it is marking the middle of a channel, it should be kept to the port (left) side; otherwise, it may be passed on either side.

Isolated Danger Buoys

An isolated danger buoy is moored on or above an isolated danger that has navigable water all around it. It may be used to mark natural dangers such as small shoals or obstructions such as wrecks. Consult the appropriate chart for more details, such as dimensions and depth of the danger.

Cardinal Buoys

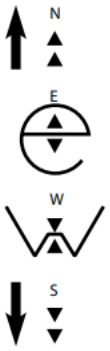
A cardinal buoy indicates the direction to safe water (for example, a north cardinal buoy indicates that the safest water exists to the north).



Description:

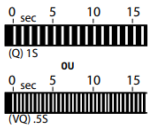
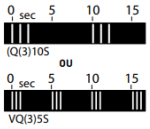
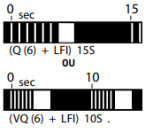
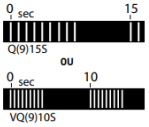
- Yellow and black
- White lights - See light flash characters indicated below (if equipped)
- The points of the two topmark cones tell you where to find safe water
- Topmark cones show where the black bands are placed on the buoy
- Letterhead – no numbers
- White retroreflective material

Topmarks



Top Marks on buoy indicate the direction and orientation.

Light Flash Characters

NORTH	EAST	SOUTH	WEST
			

6.13 Boarding Small Vessels

- Stand clear of the vessel and dock edge during docking procedures. Do not attempt to board until the watercraft is securely tied to the dock and the Captain gives permission to board.
- Only one person at a time boards or departs the small vessel.
- Never, under any circumstances, place arms, legs or any other part of the body between the vessel and the dock or between two vessels.
- Do not block access to the watercraft's cleats. If you are unsure where to stow your gear or other equipment, ask.

6.14 Transfer of Personnel or Equipment -

NO personnel or equipment transfer shall be conducted at sea (river, lake), except in the event of an emergency and at the discretion of the Captain.

6.15 Personal Flotation Devices (PFD) and Survival Suits

In New Brunswick, the safety standards for personal flotation devices (PFDs) align with federal regulations and are further detailed in provincial guidelines. Key requirements include:

1. **Mandatory Carriage and Usage:**
    - **Federal Requirement:** Transport Canada mandates that all vessels must have a Canadian-approved lifejacket or PFD for each person on board, including those on human-powered watercraft.
    - **Provincial Regulation:** WorkSafeNB specifies that individuals must always wear suitable PFDs or lifejackets when on the deck of a commercial fishing vessel.
2. **Standards and Specifications:**
    - **Buoyancy:** PFDs and lifejackets must provide a minimum buoyancy of 69 Newtons (7.03 kg or 15.5 lbs).
    - **Approval:** Devices must have a permanent label indicating approval by Transport Canada, the Canadian Coast Guard, or Fisheries and Oceans Canada.
    - **Visibility:** To enhance visibility, flotation devices should have white or silver retro-reflective material on surfaces that typically remain above water.
3. **Inflatable PFDs:**
    - Inflatable PFDs must be automatically inflatable and have a manual inflation system. They should be worn over clothing, and nothing that might prevent proper inflation should be attached to them.
    - Inflatable flotation devices are **not recommended for use in temperatures below freezing**. As temperatures approach freezing, your inflatable flotation device will provide less buoyancy and will inflate more slowly
    - Ensure CO2 cartridges are inspected and replaced as needed.

6.16 Working from Small Vessels

Explosion: Using gasoline or compressed gases on board a vessel creates a risk of explosion. That is why Parts 6, 7, and 10 of the Small Vessel Regulations restrict the use and installation of fuel-burning systems and appliances, such as stoves, cabin heaters, and refrigerators. Please read them and check your vessel to ensure compliance.

Ensure that you use only marine-rated equipment and have any work done by a technician qualified in marine installation.

Note: If you carry passengers on your vessel, installing systems and appliances that use gaseous fuel, liquefied petroleum gas, compressed natural gas or naphtha is prohibited.

6.17 Hazards Associated with Flood Waters

- Water is contaminated.
- When water has calmed and appears stagnant, be cognizant of currents which may not be visible.
- If your clothing and/or boots become immersed in floodwater, please bring them to the office in a bag to be professionally cleaned.
- If your vehicle has come into contact with floodwater, please have it washed.

- Entering the water is the last resort.
- Do not enter the water alone.
- If you do enter the water, walk very slowly, feeling your way.
- If you enter the water with your vehicle, proceed with caution. If you are driving through water, proceed slowly to minimize the wake of the water.
- If you are required to get into a vessel, you must be wearing a Transport Canada-approved flotation suit.

6.18 Small Vessel and Vessel Stability

NB Power shall ensure that the owner and operator of a commercial vessel adheres to the *Small Vessel Regulations*. The owner and operator (Captain) of a commercial vessel requires that the vessel have adequate stability to safely carry out its intended operations.

Vessels 6 meters and under: Acceptable and suitable standards for demonstrating stability evaluation are contained within Construction Standards for Small Vessels (2010) - TP 1332 E, Chapter 4 and the Small Vessel Regulations SOR/2010-91.

Normally on small vessels, this is detailed in the conformity label/notice. See example in Appen*dix "C"*.

6.19 Use of barges, ballistic systems assembly, and operation of barges

Barge operations in New Brunswick are governed by a comprehensive framework of regulations designed to ensure the safety of personnel, the integrity of equipment, and the protection of the marine environment. This standard encompasses various aspects of barge operations, including mobilization, assembly, operational procedures, and the range of activities conducted on barges.

Mobilization involves preparing and deploying barges and associated equipment to designated work sites. In New Brunswick, this process must adhere to provincial and federal regulations to ensure safety and environmental compliance.

Equipment Inspection and Maintenance: Before deployment, all materials handling equipment must undergo thorough inspections to confirm that they are in safe working condition. Any identified defects must be repaired or replaced to maintain operational integrity.

When working with a sectional barge system, careful consideration must be given to the assembly of its components. Other inherent risks include Improper alignment or connection of barge sections, which can result in instability, leading to shifting, tilting, or even capsizing.

Workers need to manage the risks associated with improperly securing locking mechanisms or fasteners, which may fail under load.

Use proper alignment tools and procedures to ensure barge sections are correctly positioned before securing them.

Verify all locking pins, bolts, and connections are correctly installed and inspected by a competent person.

Here are the key Transport Canada requirements for welding sectional barge components of small commercial vessels in Canada:

1. Select applicable standards: Based on material (steel, aluminum), cargo type (oil/chem), and vessel usage.
2. Develop/approve WPS/PQR: Align with CSA standards (e.g., W59.2 for aluminum, W59 for steel).
3. Ensure certified welders: Hold the necessary certifications and work under proper supervision.
4. Control fabrication environment: Maintain requirements for welding area (covering, ventilation, temperature).
5. Document everything: Log procedures, qualifications, materials, and inspection results.
6. Schedule inspections: According to regulatory intervals (annual, quinquennial, or after fabrication).
7. Retain records: For at least 7 years and present them for Transport Canada inspections/licensing.

Conduct a float test or stability check before complete assembly and loading.
Operator Training: Personnel responsible for operating materials handling equipment must receive adequate training to ensure the competent and safe operation of this equipment.

The operational phase involves using barges for transportation, lifting, and material handling tasks. Regulatory requirements during this phase focus on safety and efficiency:

Safe Working Loads: Lifting appliances on vessels must adhere to specified safe working loads, especially when the vessel is subject to wave action. Operators must consult manufacturer-provided tables or applicable regulations to determine appropriate load reductions under such conditions.

Load Positioning: When transporting raised or suspended loads on a vessel, operators must carry the load as close to the deck as possible to maintain stability.

Proper rigging is crucial to ensure the' stability of loads and the safety of personnel during lifting operations. Standards and regulations provide detailed guidance on rigging practices:

Rigging Plans: Vessels must maintain comprehensive rigging plans that detail the positioning of pulley blocks, guys, resultant loads, identifying marks on gear, and the working range of appliances. These plans ensure that lifting appliances are rigged correctly and safely.

Equipment Specifications: The materials used in rigging, such as ropes and hangers, must meet specific standards to ensure they can support the anticipated loads without failure. For instance, synthetic fiber or wire ropes used in suspended work platforms must provide a safety factor of not less than ten, based on the manufacturer’s rated breaking strength.

The process of loading equipment onto barges requires meticulous planning and adherence to safety protocols to prevent accidents and equipment damage:

Stability During Loading: Operators must ensure that materials handling equipment is stationary. At the same time, loads are being picked up or placed, unless the equipment is specifically designed for such operations. This precaution helps maintain stability and prevents accidents.

General Safety Standards for Securing Barges:

- **Fendering:** When a barge is moored alongside another vessel, dock, or similar facility, suitable fendering must be provided to prevent steel-to-steel contact and the associated risk of sparks.
- **Ground Tackle:** New oil barges and dangerous chemical barges carrying a crew, and not exclusively on specific voyages, are required to have at least one anchor with appropriate recovery devices, as per recognized manufacturer specifications and Transport Canada / Shipping Act regulations.

Spud Barge Safety:

While specific Canadian regulations on spud systems are not detailed, best practices from other jurisdictions emphasize:

- **Securing Raised Spuds:** When a barge is in transit, spuds should be raised and secured in a way that prevents accidental deployment or release of the spuds.
- **Operational Procedures:** Developing standard operating procedures for the safe use of spuds, including training for employees on proper securing techniques, is essential.

Housekeeping: To prevent hazards, decks and other areas of materials handling equipment must be kept free from grease, oil, materials, tools, and equipment that could pose risks to personnel.

Adherence to these standards is essential for the safe and efficient operation of barges within New Brunswick's jurisdiction. Employers and operators must remain vigilant in implementing these regulations to protect both personnel and the marine environment.

6.20 Work Vessels and Vessels – Gantries, Cranes, and Rigging:

In New Brunswick, the operation of marine commercial vessels equipped with gantries and rigging is governed by a combination of federal and provincial regulations designed to ensure safety and compliance. Key regulatory frameworks include:

Federal Regulations:

Shipping Act, 2001: This act serves as the primary legislation for marine safety in Canada, encompassing various aspects of vessel operation, construction, and equipment standards.

Navigation Safety Regulations, 2020: These regulations, established under the Canada Shipping Act, set forth requirements for the safe navigation of vessels, including equipment standards and operational protocols.

Small Commercial Vessel Safety Guide: Published by Transport Canada, this guide provides comprehensive information on safety requirements for small commercial vessels, including those related to equipment and operational safety.

Provincial Regulations:

Occupational Health and Safety Act and Regulation 91-191: In New Brunswick, this regulation outlines specific safety standards for workplaces, including marine vessels. Part XV of Regulation 91-191 specifically addresses material handling equipment, encompassing gantries and rigging. Employers must ensure that all lifting operations are conducted safely and that equipment is appropriately maintained.

New Brunswick legislation: WorkSafe NB provides safety guidelines for various industries, including the fishing industry. Since fishing vessels are now considered workplaces, all occupational health and safety laws applicable to workplaces in New Brunswick also apply to fishing vessels.

Knife Use: A knife is an essential tool when conducting marine activities. Due to the nature of the industry and the need for larger knives to cut large-diameter ropes, typically larger open-blade knives are used. Workers must ensure that the appropriate hand protection is worn to protect themselves from hand injuries. When possible, it is recommended to use a sheath to protect the worker from injury when the knife is not in use.

Equipment Standards and Safe Operations:

Rigging and Lifting Operations Standard: NB Power's "Rigging and Lifting Operations" standard defines procedures and controls for rigging and lifting in compliance with New Brunswick Regulation 91-191. This standard applies to all personnel performing rigging and lifting operations, emphasizing the importance of using properly maintained equipment and adhering to established safety procedures.

Key Safety Considerations:

Competency: Personnel involved in operating gantries and rigging must be trained and deemed competent to perform their duties safely and effectively.

Equipment Maintenance: Regular inspection and maintenance of lifting equipment are mandatory to ensure safe operation and compliance with regulatory standards.

Safe Work Procedures: Employers must develop and implement safe work procedures for lifting operations, including the use of appropriate personal protective equipment and adherence to load limits.

By adhering to these federal and provincial regulations and guidelines, operators of marine commercial vessels in New Brunswick can ensure the safe and compliant use of gantries and rigging equipment.

6.21 Fire Safety:

An essential firefighting requirement is that a fire can be put out in enclosed engine spaces without opening the engine space access hatch or door.

For vessels no more than 6 metres long, a discharge port (hole with a closure) that you can open to discharge a portable fire extinguisher into the engine space is required unless the vessel is fitted with a fixed fire extinguishing system. You must ensure the hole is labelled to indicate that it is for firefighting purposes and keep a fire extinguisher nearby for use only in the event of engine room fires. The extinguisher must be large enough for the size of the space (at least 1.2 kg of carbon dioxide (CO2) for each cubic metre of the space).

Vessels longer than 6 metres with engine spaces small enough to meet the requirement with a portable fire extinguisher weighing less than 23 kg and that can be discharged entirely in the period specified in the Small Vessel Regulations may also use the discharge port option. For example, for an engine space of 8 cubic meters, a typical 10 kg CO2 extinguisher, weighing no more than 23 kg, may be used.

All other vessels must have a fixed fire extinguishing system certified for marine use and enough CO2 or other agents for the size of the engine space.

On all vessels exceeding 6 metres in length, a detector is required that activates a remote audible and visible alarm at the operating position when the temperature either reaches a preset level or increases rapidly in the engine space. A heat detector is only needed on smaller vessels if a fire in the engine space cannot be easily noticed.

Smoke detectors are required in the accommodation and service spaces of small commercial vessels. A fire alarm panel is required on all vessels more than 6 metres long. The panel's requirements vary with the vessel's length. According to the Small Commercial Vessel Safety Guide, smaller vessels are permitted to have independent detectors with a built-in alarm. On larger vessels, all detectors must be connected to the fire alarm panel. For detailed requirements, refer to the Small Vessel Regulations and the Construction Standards for Small Vessels.

6.22 Safety and firefighting Equipment Small Vessels 6 meters or less

The safety and firefighting equipment requirements are listed below in Table 6.14-1.

Table 6.14-1: Required Safety Equipment	
Vessel length 6 metres or less	
Transport Canada approved lifejacket, sized for each person on board	YES
Transport Canada Approved flotation suit in water temperature less than 15°C in coastal water beyond two nautical miles.	YES
Marine emergency first aid kit (see requirements below in section 6.9.1, first aid kit for required contents)	YES
Re-boarding device if the vertical height to be climbed is more than 0.5 meters.	As applicable
Buoyant heaving line or lifebuoy at least 15 meters long	YES
Watertight flashlight	YES

Flares **Note:** Personal Watercraft (PWC) & Small Vessels Under 6m (19.7 ft) • Exempt if operating on a body of water where the shore is always visible.	YES 3 (other than smoke signals)
Manual propelling device (e.g. oars) or an anchor at least 15 meters long	YES
Manual bilge pump or Bailer	YES
A sound signaling device is a pea-less whistle, a compressed gas, or an electric horn.	YES
Navigation lights Note: In Canada, under the Collision Regulations (made under the Canada Shipping Act, 2001), most vessels are required to display navigation lights from sunset to sunrise or in poor visibility. However, there are a few exceptions for certain types of watercrafts, particularly non-powered or small human-powered vessels.	YES – Some exceptions, Reference: **6.14-1a**

6.14-1a Vessel Type	**Full Nav Lights?**	**Alternative**	**Notes**
Canoe/Kayak/Rowboat	No	Flashlight	Must be visible at night
Paddleboard	No	Flashlight	Same as above
Sailboat under 7 m (no motor)	No	Flashlight	Only if under sail alone
Anchored vessel under 7 m	Sometimes	Optional	Depending on location
Powered vessels (any size)	Yes	N/A	Required, even if the engine is off

Class 5B: C portable fire extinguisher. Note: A work vessel that is not more than 6 m in length and that has an enclosed engine space shall have provision for discharging a portable fire extinguisher directly into the engine space without the need to open the primary access to that space	YES

6.23 Operating vessels at night:

Operating a commercial vessel at night in Canada involves meeting several regulatory and safety requirements under the Canada Shipping Act, 2001, the Collision Regulations, and various Transport Canada guidelines.

1. Vessel Compliance & Certification

- Must be inspected and certified by Transport Canada, especially if carrying passengers or cargo.
- Vessel must comply with relevant sections of:
  - Small Vessel Regulations
  - Marine Machinery Regulations
  - Vessel Construction and Equipment Regulations
- A valid inspection certificate, a safe manning document, and, if applicable, a passenger certificate are required.

2. Qualified Crew & Certification

- Operator must hold a valid Marine Certificate of Competency:
  - For vessels <12 m: Small Vessel Operator Proficiency (SVOP) + Marine

Emergency Duties A3 (MED A3)
  - For larger or passenger vessels: higher-level certification (e.g. Master, Limited or Master, Near Coastal)
- Radio Operator Certificate – ROC(M) is required if carrying a marine VHF radio.

3. Navigation Light Requirements (Collision Regulations)

At night or in restricted visibility, the vessel must be equipped with and show proper lights, based on its type and operation:

- Power-driven vessel under 12 m:
  - All-around white light or
  - Masthead light, stern light, and sidelights.
- Passenger vessels must display additional lighting and meet redundancy rules.
- Tugboats, barges, and fishing vessels require special light configurations.

4. Navigation Equipment

- Must carry appropriate navigational equipment:
  - Compass, nautical charts, radar reflector
  - If over 8 m or carrying passengers, radar, GPS, echo sounder, and speed log may be required.
- Vessels ≥20 m require AIS (Automatic Identification System)

5. Communication & Emergency Gear

- Marine VHF radio required.
- Must carry appropriate flares, lifejackets, lifebuoys, fire extinguishers, and a first aid kit.
- Sound-signalling appliances (e.g., horns or whistles) are mandatory.
- Searchlight or spotlight recommended for navigation and identifying floating hazards.

6. Safety Management

- Must have an onboard Safety Procedures Manual
- If carrying workers, comply with the Marine Occupational Health and Safety Regulations
- Emergency procedures for:
  - Man overboard
  - Fire
  - Collision
  - Abandon ship
- Conduct night operation drills as part of training

7. Lifesaving Equipment

- Required to carry:
  - Approved lifejackets for each person onboard
  - Lifebuoy with attached line or light
  - Navigation lights and backup lighting
  - Distress signals

8. Additional Notes:

- Night operations must be planned carefully, with special attention to:
  - Crew fatigue
  - Poor visibility and weather
  - Traffic in high-use channels
- Check local Notices to Mariners or Marine Safety Information Bulletins (MSIBs) before departure.

Summary Checklist for Commercial Night Operation

Requirement	Needed?
Valid vessel certification	Yes
The operator holds SVOP or better.	Yes
Navigation lights functioning	Yes
VHF Radio + ROC(M) certification	Yes
Emergency gear & lifejackets	Yes
Sound signals & compass	Yes
Safety management procedures	Yes
Night ops risk assessment	Yes

Table 6.14-2: Required Fire Fighting and Detection Equipment (below)

1. Not required if the vessel is not power-driven and does not have an electrical system.
2. Must have a clearly labelled port or other way of discharging a properly sized fire extinguisher directly into any enclosed engine space without opening the primary access to the space. This extinguisher is in addition to all other extinguishers required in the table. (See Fire Safety in Chapter 2 for further details on construction requirements.) A fixed firefighting system may be installed instead of the engine space port.
3. May use the engine space port described above if the engine space is less than 8m3 (based on a CO2 extinguisher containing 10 kg of gas), depending on the extinguisher type and size.
4. Power-driven pump located outside the engine space with enough hose to be able to direct the water jet into any part of the vessel.
5. Connected to a remote alarm at the operating position as per the Small Vessel Regulations. Not required on a vessel in which the engine is enclosed by boxing in

such a manner that a fire would be immediately apparent to a person at the operating position.

6. Connected to a fire alarm panel as per the Construction Standards for Small Vessels.
7. Stand-alone installation (alarm and power). 8. Connected to the fire alarm panel on all passenger-carrying vessels and on work vessels with overnight accommodations.

Table 6.14-2: Required Fire Fighting and Detection Equipment

Vessel length	6 metres or less	More than 6 but not more than 9 metres	More than 9 but not more than 12 metres	More than 12 metres
General use fire extinguisher[1]	One 1A:5B:C	One 2A:10B:C	One 2A:10B:C	One 2A:20B:C
Additional extinguishers • if vessel equipped with fuel burning cooking, heating or refrigerating appliance	One 1A:5B:C	One 2A:10B:C	One 2A:10B:C	One 2A:20B:C at **each access** to any space equipped with fuel burning cooking, heating or refrigerating appliance
• at entrance to the engine space		One 10B:C	One 10B:C	One 20B:C
• at entrance to each accommodation space				One 2A:20B:C
Engine space port and dedicated CO_2 or equivalent fire extinguisher	√[2]			
Fixed fire extinguishing system		√[3]	√[3]	√
Fire axe			One	One
Fire bucket(s)			One	Two
Fire pump, hose and nozzle[4]				√
Temperature detector – Engine space	√[5]			
Temperature and rate of heat rise detector – Engine space		√[6]	√[6]	√[6]
Smoke detectors - Accommodation and service spaces	√[7]	√[7]	√[7]	√[8]

6.24 First Aid Kit

The first aid kit shall meet or exceed the requirements of NB Power (with the addition of a resuscitation face shield and two pairs of examination gloves if the kit does not already contain them).

6.25 Communications

- The language to be used shall be agreed upon for all radio and mobile communications.
- Agree on a working channel. A backup channel is on channel 16.

6.26 Working in Extreme Weather Conditions

The following recommendations apply to all work in extreme temperature conditions, encompassing both hot and cold environments. They are intended to assist employers, workers, and other workplace personnel in understanding the effects of extreme temperatures on the body, as well as to prevent such effects in the workplace.

The greatest dangers are heat exhaustion or heat stroke, and frostbite or hypothermia. Although weather and environmental conditions inside and outside present challenges to work, there is still a need to adhere to health and safety requirements.

- Working in Extreme Cold

  At very cold temperatures, the most serious concern is the risk of hypothermia or dangerous overcooling of the body. Another serious effect of cold exposure is frostbite, which occurs when the exposed extremities, such as fingers, toes, nose, and ear lobes, freeze. Hypothermia could be fatal in the absence of immediate medical attention.

  Warning signs of hypothermia can include complaints of nausea, fatigue, dizziness, irritability or euphoria. Workers can also experience pain in their extremities (such as hands, feet, and ears), as well as severe shivering. Workers should be moved to a heated shelter and seek medical advice.

6.27 Vessels Towing and Under Tow

Vessels may be towing barges or other vessels on a long towline astern. Often, the length of the tow is so great that the towline hangs below the surface of the water and is nearly invisible. If a small craft were to strike the submerged towline, it could capsize and be run down by the barge.

Never pass between a tug and its tow. To avoid this and to keep from getting caught on the towline (or worse), you must be alert for the special shapes and lights displayed by vessels towing barges, other vessels or objects. The towing vessel is usually more visible than its tow. The tow's navigation lights do not include masthead lights and are often much dimmer than those of the towing vessels.

In the case of a power-driven vessel towing another vessel from its stern, the towing vessel must exhibit the following:

- Sidelights and stern light.
- Towing light (yellow light with the same characteristics as the stern light).
- Two masthead lights in a vertical line — three of these lights if the tow (length of tow cable plus object being towed) exceeds 200 metres.
- A diamond shape where it can best be seen if the tow exceeds 200 metres — day signal. In the case of the vessel being towed, it must exhibit the following:
- Sidelights and stern light. • A diamond shape where it can best be seen if the tow exceeds 200 metres.
- If it is impractical for the vessel being towed to exhibit the above lights, it must have one

all-around white light at each fore and aft end.

6.28 Navigation Lights Maintenance

Navigation lights must be kept in good condition. Always check that they are working before leaving the dock. Be sure to carry spare bulbs and fuses of the proper size and power.

Including navigation lights as part of your regular maintenance program is a good idea. Most lights use a rubber or foam gasket to seal against moisture. If you see condensation inside the lens, it means the gasket leaks. Inspect the gasket for proper placement, splits or cracks, and replace them as needed. Spray gaskets with silicone and electrical connections with a corrosion protector to extend your fixtures' life. Be sure to clean the light, reflector, and lens thoroughly when needed.

6.29 Sound Signaling Equipment

The Small Vessel Regulations require that you carry a sound signalling device or appliance to alert other vessels to your presence or your intentions. Sound signals are necessary in certain meetings, crossings, overtaking and emergency situations. All vessels must sound the appropriate signal (described in the Collision Regulations) during fog, heavy rain or other conditions of reduced visibility.

A vessel 12 metres long or more must carry a sound signalling appliance meeting the requirements of the Collision Regulations, such as a horn or whistle that has an audible range of at least 0.5 nautical miles (1 nautical mile if the vessel is more than 20 metres long) and that can give a "prolonged blast" 4 to 6 seconds long.

Vessels less than 12 metres long can use any efficient sound signalling device—such as a pealess whistle or a compressed gas or electric horn—that can make a sound for 4 to 6 seconds and can be heard within a range of 0.5 nautical miles.

6.30 Radar Reflectors

A passive radar reflector can help a radar-equipped vessel detect your vessel. Vessels less than 20 metres long or built mostly from non-metal materials must have a radar reflector mounted above the superstructure, when possible, not less than 4 metres above the water. The reflector must be able to perform under the range of foreseeable environmental conditions.

The radar reflector requirement does not apply if your vessel is very small or if it operates only:

- In limited traffic during daylight hours when the visibility is good or
- Where no vessels use radar.

Refer to Ship Safety Bulletin 07/2008: The Importance of Properly Fitting an Effective Radar Reflector on Small or Non-Metallic Vessels for more information on the need to carefully select and install radar reflectors.

Remember: Having a radar reflector helps you be seen. You still must keep a proper lookout for other vessels

7.0 TRAINING

A Captain operating a small commercial vessel must have either a:

- PCOC (Pleasure Craft Operators Certificate)
- SVOP (Small Vessel Operator Proficiency)
- Certificate dependent on the requirements in the table below.

PCOC is required	**SVOP is required**
Under 8 meters (~26.3') in length	More than 8 metres (26.3') in length
Under 10 gross tons	Being operated more than 3.7 kilometres from shore in "near coastal, Class 2" waters
Operated in sheltered waters. Which is defined as any waters in Canada on a lake, or a river above tidal waters, where a small vessel can never be further than two kilometres from the closest shore.	Transporting more than six passengers* (*see definition below)
Not carrying more than six passengers* (*see definition below)	
Not towing another vessel.	
Passengers: Defined by Transport Canada as anyone not part of the crew or normally required for the operation of the vessel. This includes colleagues being transported to a work site. People do not have to pay a "fare" to be considered passengers.	

Certification that shows that a crew has at least the minimum level of training required is mandatory for all non-pleasure vessel crews in three areas:

1. **First aid –** At least one crew member must hold a valid certificate in marine basic first aid while a vessel is engaged on a Near Coastal Voyage, Class 2 or Sheltered Waters Voyage. A valid marine advanced first aid course is required for vessels engaged on a Near Coastal Voyage, Class 1. In some cases, a first aid training course (at least 2 days) recognized by a province or territory is acceptable. For more information, refer to Ship Safety Bulletin 03/2009: Training Requirements for the Person Designated to Provide First Aid on Board a Vessel and Period of Validity of First Aid Training Courses Recognized by a Province or Territory, Marine First Aid and Marine Medical Care Training Certificates.
2. **Operator competency –** The operator of the vessel must be certified at the appropriate level or higher for the size and type of vessel, as well as the voyage being undertaken. Refer to Table 4-1 for the necessary level of certification and the corresponding timeline.
3. **Basic Safety Training – The owner and operator must ensure that all crew members receive onboard familiarization and safety training before performing any assigned**

function (see Section 4: Marine Emergency Duties Training Program - TP4957). Unless the level of operator competency required is a Pleasure Craft Operator Card (PCOC), each crew member must also obtain a certificate in basic safety training, also known as MED or Marine Emergency Duties, at the level shown in Table 6-1 before completing six months of sea service.

Table 6-1, below, shows, by vessel type, size in gross tonnage (GT) and length in metres (m), and voyage class, the minimum requirements for competency for the vessel operator (shown in blue) as well as the marine emergency duties training requirements (shown in red) for each person required to be on board to meet the requirements for the minimum complement set out in the Marine Personnel Regulations.

Table 6-1: Operator Competency/Marine Emergency Duties (MED) Training Requirements

	Vessel	Near Coastal, Class 1	Near Coastal, Class 2		Sheltered Waters
			More than 2 nautical miles from shore	2 nautical miles or less from shore	
Passenger-Carrying Vessels[4]	More than 5 GT	Master 150 GT (Domestic) (if endorsed for limited, contiguous waters) MED BST	Limited Master < 60 GT		MED A1, A2 or A3
	Less than or equal 5 GT **and** either: • more than 8 m; or • more than 6 passengers		SVOP MED A1, A2 or A3	SVOP MED A1, A2 or A3	SVOP MED A1, A2 or A3
	No more than 6 passengers **and** no more than 8 m				PCOC[5]
Workboats	More than 5 GT	Master 150 GT (Domestic) (if endorsed for limited, contiguous waters) MED BST	Limited Master < 60 GT		MED A1, A2 or A3
	Less than or equal 5 GT **and** more than 8 m (except tugs)		SVOP MED A1, A2 or A3	SVOP MED A1, A2 or A3	SVOP MED A1, A2 or A3
	No more than 8 m (except tugs)			PCOC[5]	
	Tugs		Limited Master < 60 GT		MED A1, A2 or A3
This table is for easy reference only. If different from the *Marine Personnel Regulations*, the regulations shall prevail.					

Operator Competency Certificates for Small Commercial Vessels:
PCOC – Pleasure Craft Operator Card
SVOP – Small Vessel Operator Proficiency
Limited Master < 60 GT
Master 150 GT (Domestic)

Refer to TP 10655, 4957, 14692, 13008

Marine Emergency Duties (MED) Training
MED Basic Safety Training (BST) – STCW (Standard for Training, Certification and Watchkeeping) Basic Safety
MED A1 – Basic Safety
MED A2 – Small Passenger Vessel Safety
MED A3 – Small Non-Pleasure Vessel Basic Safety
PCOC – Pleasure Craft Operator Card

4. A training certificate in marine emergency duties with respect to small seasonal passenger vessel safety (non-certificated personnel) is acceptable for crew members that are not required to hold a certificate if the vessel is a passenger-carrying vessel that operates only between March 31 and December 1 on a sheltered waters voyage, provided it does not have berthed accommodations and it is not a ferry.
5. Where a Pleasure Craft Operator Card (PCOC) meets the requirements for operatory competency, it also meets the training requirements for marine emergency duties.

8.0 APPENDIXES

- Appendix “A” Person Overboard (POB) Procedure
- Appendix “B” Small Vessel / Vessel Pre-use Checklist
- Appendix “C” Conformity Label/Notice
- Appendix "D” Choosing a Lifejacket and Personal Flotation Device
- Appendix “E” Marine on-water right-of-way
- Appendix "F” Small Vessel and Vessel Trailer Diagram
- Appendix “G” Mooring lines and Vesseling knots
- Appendix "H” Commercial Vessel Registration
- Appendix “I” Marine Sale Plan

DOCUMENT APPROVAL /REVISION RECORD

Revision #	**Date** yyyy/mm/dd	**Revision Summary**	**Author**	**Reviewed By**	**Approved By**
01	2019/03/30	Revised Standard	Ian Case	Shelley Parker	Robin Condon
02	2025/06/30	Complete revision	Shawn MacLean	Andrew Munn	Roland Roy

Director of Total
Health & Safety

Appendix A

Emergency Procedure

Person Overboard Retrieval Purpose

- To maintain sight of a person overboard while maneuvering
- To recover the person safely as quickly as possible

Responsibilities

- Spotter – to keep the person in sight and provide assistance
- Master – to bring the vessel back to the person safely and quickly

Step	Person Overboard
1.	Whoever sees the victim fall overboard shouts "man overboard!" at the top of their voice(s) and points to the victim.
2.	The spotter(s) continues to point to the victim until the vessel reaches the victim. *It is vital that spotters do not take their eyes off the victim at any time and that they continue to point throughout.*
3.	Throw into the water readily available objects that the victim could use to keep afloat.
4.	Master -Turn stern (propeller) away from victim by turning the wheel towards the side of his departure and proceed in direction indicated by spotter
5.	Alert other vessels in the vicinity so that they can help and do not endanger the person.
6.	Make a slow, powered approach into the wind, reducing to dead slow as you approach the victim.
7.	Kill the engine (kill cords) when the victim is grasped.
8.	If there are significant swells, use the heaving line or lifebuoy to avoid the vessel coming down on the victim
9.	Bring the victim onboard and administer first aid as required.
10.	Complete an incident report Form 145 and advise the Supervisor of the incident

Transport Canada Version 1.0 Date modified: 2018-03-06

We have adopted Transport Canada's procedure for person overboard. For additional information or the most up-to-date copy, please refer to: http://www.tc.gc.ca/eng/marinesafety/debs-small-vessels-procedures-person-overboard-2996.htm.

Appendix B

Small Vessel / Vessel Pre-use Checklist

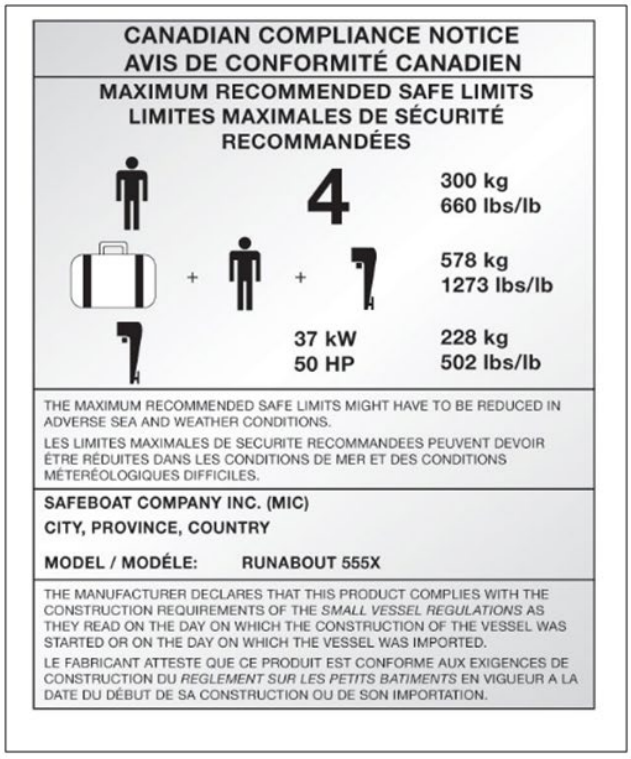
✓	**Action**
	Have onboard their Small Vessel Operator Proficiency or Pleasure Craft Operators certificate.
	Check fuel oil level.
	Check operation of fwd/rev lever and throttle control.
	Check turning radius of engine and freedom of movement.
	Check that all lifesaving equipment is onboard.
	Place toolbox with necessary tools in small vessel and secure.
	Check operation of radio with a radio check of mobile device.
	Check the navigation lights, searchlights, and horn if applicable.
	Check that the battery connections are tight, clean, and fully greased.
	Check the vessel is clean and in good condition (e.g. no leaks, bilge clean).
	Ensure tailboard meeting is held by team prior to work commencing, including: _____ The operation plan overview _____ Contingency plans _____ Worksite safety _____ Operation conditions (e.g. weather) _____ The operation plan overview. _____ Duration _____ Communication channels _____ PPE checks _____ Opportunity to anyone to discuss concerns _____ Right to refuse unsafe work.
	Ensure the weight on the conformity label affixed to the small vessel is not exceeded by personnel and equipment to maintain stability.
	Ensure that all crew members are dressed in accordance with the NB Power's Health & Safety standard *HSEE-03-11 Personnel Protection Equipment (PPE).*
	Call Local Command Centre Restoration Coordinator or Control Room for a check-in prior to launch, every hour, and upon returning to shore at the end of shift.
	Give final approval for the vessel transportation to commence.

Vessel Captain: _____ **Date:** _____

Appendix C

Conformity Label/Notice

CANADIAN COMPLIANCE NOTICE
SAFEVESSEL COMPANY INC. (MIC) **CITY, PROVINCE, COUNTRY** MODEL: **RUNABOUT 555X**
* *ADDITIONAL INFORMATION*
The manufacturer declares that this vessel complied with the non-pleasure craft construction requirements of the small vessel regulations, as they read on the day on which the construction of the vessel was started or on the day on which the vessel was imported This vessel is also suitable for pleasure craft use.



Appendix D

Choosing a lifejacket and Personal Flotation Devices

Lifejackets provide more flotation in water than most PFDs. Lifejackets come only in red, orange, and yellow so you are more visible while in the water. There are three Canadian-approved types:

1. **Safety of Life at Sea (SOLAS)** lifejackets meet very high-performance standards and are approved for all vessels. They:

- turn you on your back in seconds to keep your face out of the water, even if you are unconscious
- come in two sizes — over 32 kg (70 lbs.) or less than 32 kg
- are available in comfortable and compact inflatable styles that can be automatically, manually, or orally inflated.

2. **Standard Type** lifejackets are approved for all vessels, except SOLAS vessels. They:

- turn you on your back to keep your face out of the water, even if you are unconscious
- come in two sizes — over 40 kg (88 lbs.) or less than 40 kg

3. **Small Vessel lifejackets** are approved for small vessels. They:

- have less flotation than Standard Type lifejackets
- turn you on your back, but may do so more slowly
- come in two models — keyhole and vest
- come in three sizes

A PFD differs from a lifejacket because:

- It may be more comfortable because it is designed for constant wear
- is lighter, less bulky, and may be designed for specific sport activities
- usually offers less flotation than a lifejacket
- has limited capability to turn you in the water
- usually offers less thermal protection than a lifejacket
- If inflatable, must be used and maintained correctly in order to work

If you choose an inflatable PFD, check which boating activities they are approved for under the *Small Vessel Regulations*. Inflatable PFDs are prohibited for:

- people under 16 years of age, or weighing under 36.3 kg (80 lbs.)
- operators of personal watercraft

Inflatable PFDs come in two styles:

1. Vest types inflate automatically or are inflated orally or manually with a CO2 system.
2. **Important!** Cold temperatures that can affect the operation of the C02 cartridges

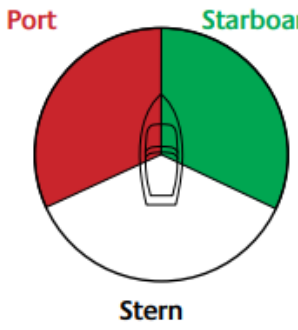
2. Pouch types can be orally inflated or manually inflated by pulling a toggle to activate CO2 inflation.

All Canadian-approved inflatable PFDs have an oral inflation tube in case the CO2 inflation mechanism fails.

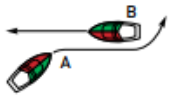
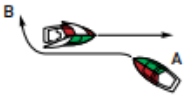
Appendix E

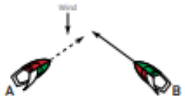
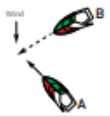
Marine on-water right-of-way

RULES OF THE ROAD



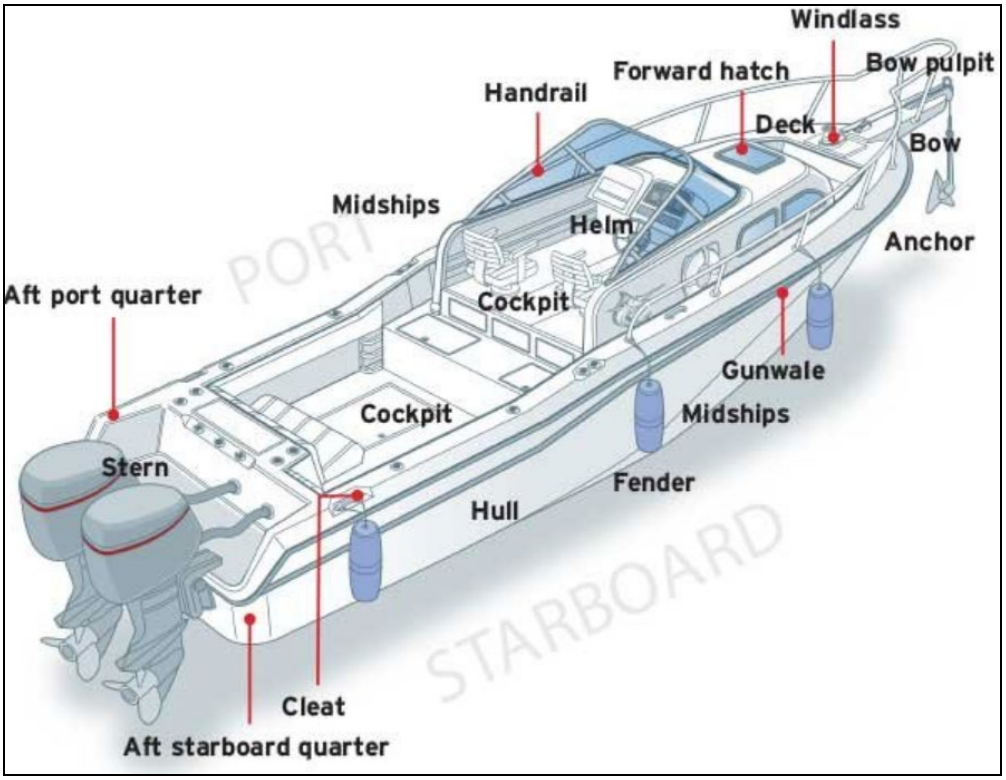
- **Port : If a power-driven vessel approaches within this sector, maintain your course and speed with caution.**
- **Starboard : If any vessel approaches within this sector, keep out of its way. (Note: This rule may not always apply if one or both vessels are sail boats.)**
- **Stern : If any vessel approaches this sector, maintain your course and speed with caution.**

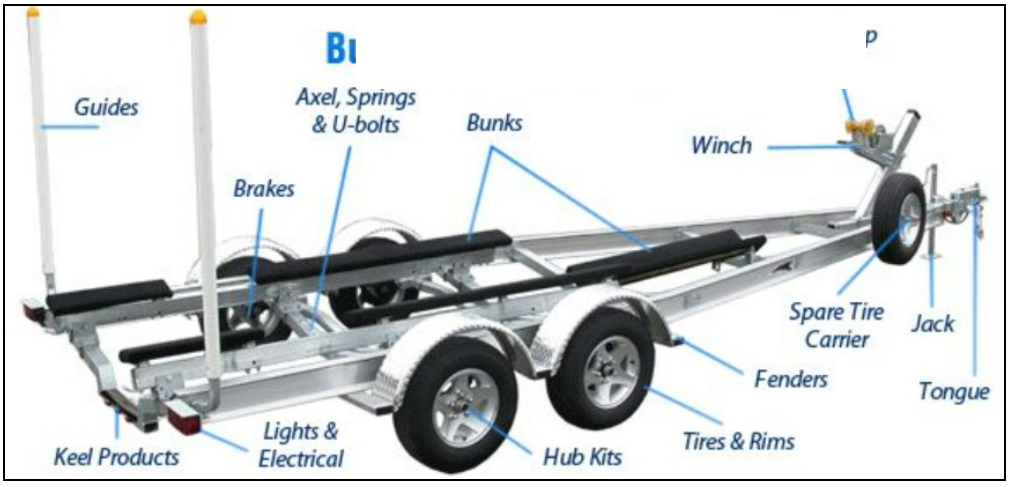
	**A** blows one blast and alters course to starboard. **B** blows one blast and alters course to starboard.
	**A** keeps clear of and must avoid crossing ahead of **B**.
	Any vessel overtaking another must keep clear.
	**A** keeps clear of **B** **B** keeps clear of **D** **C** keeps clear of **A** and **B** **D** keeps clear of **A** and **C**
	A power-driven vessel keeps clear of a sailing vessel.

1. When sailing vessels have the wind on different sides, the vessel with the wind on its port (left) side must keep out of the way of the other *Note : If a sailing vessel has the wind on its port (left) side and the operator is not sure if the other vessel has the wind on its port or starboard (right) side, the first boat must keep out of the way of the other.*	Vessel **A** keeps clear of vessel **B**. 
2. When both sailing vessels have the wind on the same side, the vessel to windward* must keep out of the way of the vessel to leeward. ** The windward side is opposite to the side that carries the mainsail or, in the case of a square-rigged vessel, the side opposite to the side that carries the largest fore-and-aft sail.*	As you can see, vessel **B**. keeps clear of vessel **A**. 

Appendix "F'

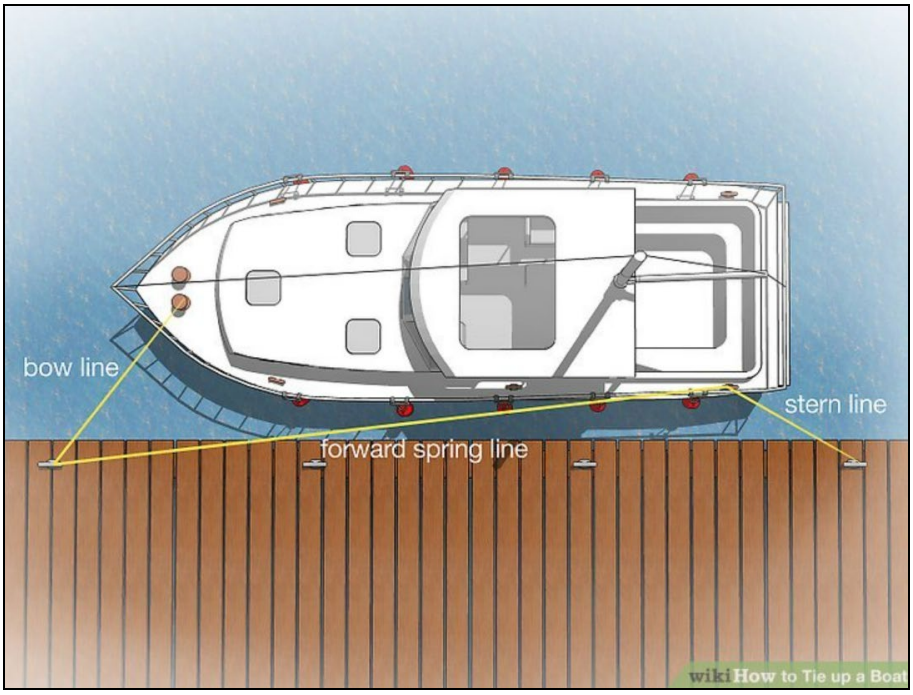
Small vessel and Vessel Trailer Diagram

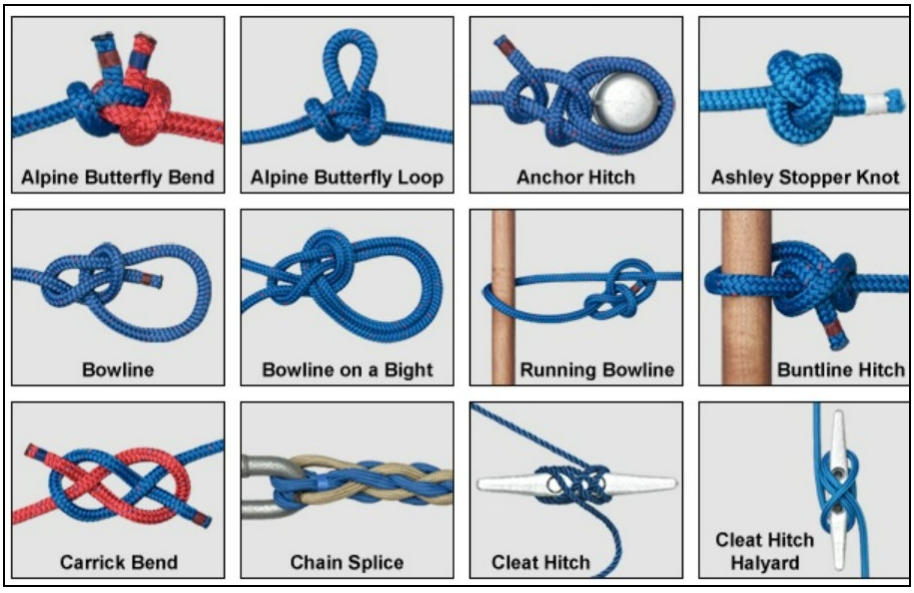




Appendix "G"

Mooring lines and Vesseling knots





Appendix "H"

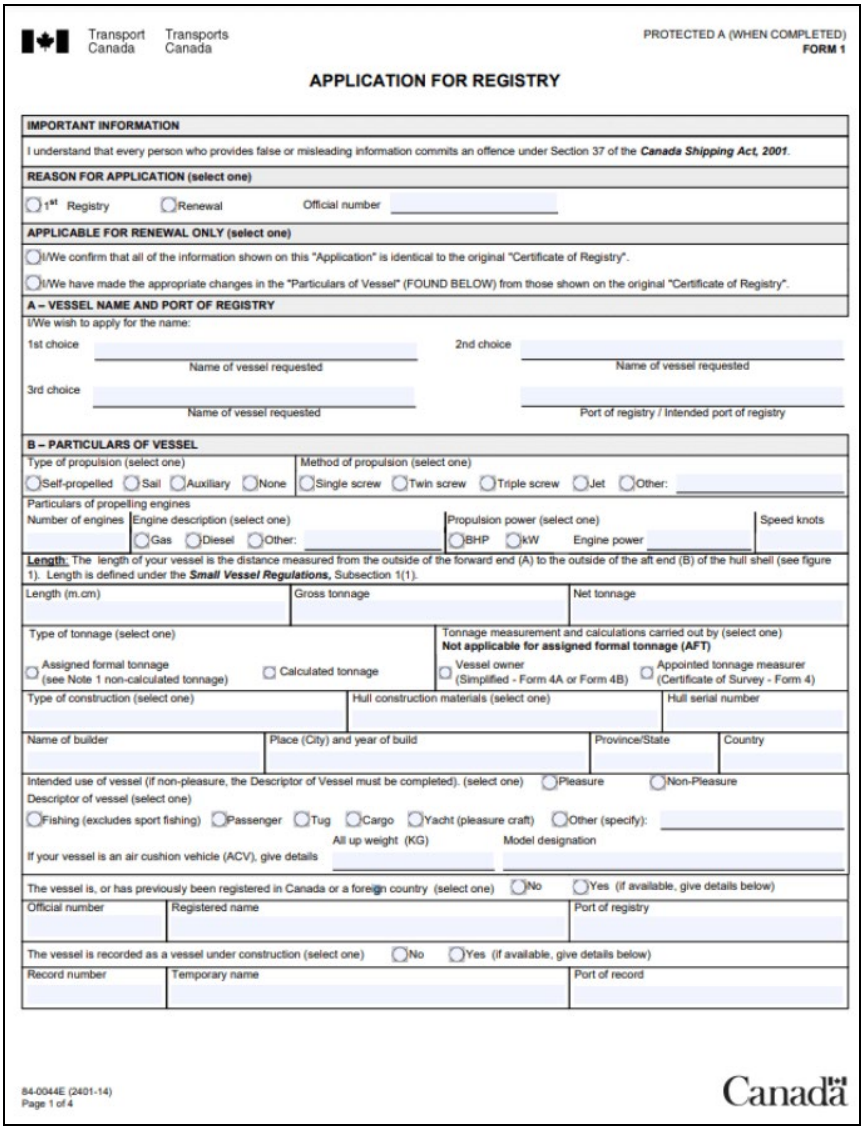
Commercial Vessel Registration

Registering a commercial vessel in New Brunswick, Canada, involves compliance with Transport Canada's national regulations. The process is as follows:

1. Determine Eligibility:
    - Qualified Owners: Vessels can be registered by Canadian citizens, permanent residents, Canadian corporations, Canadian governments (provincial or federal), foreign corporations (with a Canadian authorized representative), and Indigenous Bands.
2. Assess Registration Necessity:
    - Mandatory Registration: All commercial vessels must be registered, including human-powered craft such as kayaks and white-water rafts used by guides for guided trips. However, as of March 2011, registration is not required for human-powered vessels, small sailing vessels, and small vessels fitted with propulsion motors less than 10 horsepower (7.5 kW). Owners of such vessels may still choose to register them voluntarily.
3. Choose the Appropriate Register:
    - Small Vessel Register: For commercial vessels of 15 gross tonnage or less, not seeking to register a mortgage or reserve a vessel name. The registration fee is $50 per five-year term.
    - Canadian Register of Vessels: For vessels over 15 gross tonnage, or any vessel wishing to register a mortgage or reserve a name. This requires a one-time registration fee of $250.
4. Prepare Required Documentation:
    - Proof of Ownership: Such as a bill of sale or builder's certificate.
    - Tonnage Measurement: For vessels no longer than 15 meters, tonnage can often be calculated using a simple formula without a tonnage measurer.
    - Application Forms: Complete the necessary registration forms available on Transport Canada's website. Vessel Registration Forms
5. Mark the Vessel:
    - Name and Port of Registry: For commercial vessels, the vessel name must be marked on each bow, and both the vessel name and port of registry must be marked on the stern. Letters must be at least 10 cm in height, in a contrasting color, and clearly legible.
    - Official Number and Tonnage: Display the official number and registered tonnage on a visible interior structural part of the hull, with characters at least 4 cm high.
6. Submit the Application:
    - Online or Mail: Submit all required documents and fees through Transport Canada's online portal or by mail to the Vessel Registration Office.

7. Maintain Compliance:
    - Inspections: Commercial vessels may be inspected by Transport Canada to ensure compliance with the Canada Shipping Act, 2001, and its regulations.
    - Reporting Changes: Any changes to ownership, vessel modifications, or address must be reported to the Vessel Registrar within 30 days to maintain valid registration.

Sample vessel registration form, use this link for the latest version of Transport Canada's forms.



Transport Canada / Transports Canada

PROTECTED A (WHEN COMPLETED)
FORM 1

APPLICATION FOR REGISTRY

IMPORTANT INFORMATION

I understand that every person who provides false or misleading information commits an offence under Section 37 of the ***Canada Shipping Act, 2001***.

REASON FOR APPLICATION (select one)

◯ 1st Registry ◯ Renewal Official number _____

APPLICABLE FOR RENEWAL ONLY (select one)

◯ I/We confirm that all of the information shown on this "Application" is identical to the original "Certificate of Registry".

◯ I/We have made the appropriate changes in the "Particulars of Vessel" (FOUND BELOW) from those shown on the original "Certificate of Registry".

A – VESSEL NAME AND PORT OF REGISTRY

I/We wish to apply for the name:

1st choice _____ Name of vessel requested

2nd choice _____ Name of vessel requested

3rd choice _____ Name of vessel requested

_____ Port of registry / Intended port of registry

B – PARTICULARS OF VESSEL

Type of propulsion (select one)
◯ Self-propelled ◯ Sail ◯ Auxiliary ◯ None

Method of propulsion (select one)
◯ Single screw ◯ Twin screw ◯ Triple screw ◯ Jet ◯ Other: _____

Particulars of propelling engines

Number of engines	Engine description (select one)	Propulsion power (select one)	Speed knots
	◯ Gas ◯ Diesel ◯ Other:	◯ BHP ◯ kW Engine power	

Length: The length of your vessel is the distance measured from the outside of the forward end (A) to the outside of the aft end (B) of the hull shell (see figure 1). Length is defined under the ***Small Vessel Regulations***, Subsection 1(1).

Length (m.cm)	Gross tonnage	Net tonnage

Type of tonnage (select one)
☐ Assigned formal tonnage (see Note 1 non-calculated tonnage) ☐ Calculated tonnage

Tonnage measurement and calculations carried out by (select one)
Not applicable for assigned formal tonnage (AFT)
☐ Vessel owner (Simplified - Form 4A or Form 4B) ☐ Appointed tonnage measurer (Certificate of Survey - Form 4)

Type of construction (select one)	Hull construction materials (select one)	Hull serial number

Name of builder	Place (City) and year of build	Province/State	Country

Intended use of vessel (if non-pleasure, the Descriptor of Vessel must be completed). (select one) ◯ Pleasure ◯ Non-Pleasure

Descriptor of vessel (select one)
◯ Fishing (excludes sport fishing) ◯ Passenger ◯ Tug ◯ Cargo ◯ Yacht (pleasure craft) ◯ Other (specify): _____

If your vessel is an air cushion vehicle (ACV), give details — All up weight (KG) — Model designation

The vessel is, or has previously been registered in Canada or a foreign country (select one) ◯ No ◯ Yes (if available, give details below)

Official number	Registered name	Port of registry

The vessel is recorded as a vessel under construction (select one) ◯ No ◯ Yes (if available, give details below)

Record number	Temporary name	Port of record

84-0044E (2401-14)
Page 1 of 4

Canada

Appendix "I"

Marine Sale Plan

SAIL PLAN

To make filing your sail plan easy, photocopy this card and fill in the blanks.

OWNER INFORMATION			
Name:			
Address:			
Telephone Number:		Emergency Contact Number:	
BOAT INFORMATION			
Boat Name:		Licence or Registration Number:	
Sail:	Power:	Length:	Type:
Colour	Hull:	Deck:	Cabin:
Engine Type:		Distinguishing Features:	
Radio Channels Monitored:	HF:	VHF:	MF:
MMSI (Marine Mobile Service Identity) Number:			
Satellite or Cellular Telephone Number:			
SAFETY EQUIPMENT ON BOARD			
Lifejackets and PFDs (*include number*):			
Liferafts (*include type and colour*):			
Flares (*include number and type*):			
Other Safety Equipment:			
TRIP DETAILS (UPDATE THESE DETAILS EVERY TRIP)			
Number of People on Board:		Search and Rescue Telephone Number:	
Proposed Route			
Leaving From:		Date and Time of Departure:	
Heading To:		Estimated Date and Time of Arrival:	
Stopover Points (indicate date and time):			