

# PORT INFORMATION GUIDE

Port of Vancouver  
March 2022







Roberts Bank



Burrard Inlet





Fraser River



Fraser River

**Initiated by**



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## GENERAL INTRODUCTION

This guide has been written for masters of seagoing vessels, shipping lines, publishers of nautical information and any other party that needs nautical information.

## LEGAL DISCLAIMER

The Vancouver Fraser Port Authority (the port authority) makes every effort to make and maintain the contents of this document as up-to-date, accessible, error-free and complete as possible; however, the correctness and completeness of these contents cannot be guaranteed. The port authority accepts no liability for the occurrences and/or consequences of errors, faults or incompleteness, or any other omission in connection with the information provided by this document. In case of any discrepancies or inconsistencies between this document and the applicable legislation, including port regulations, the latter will prevail. Any substantive change to port regulations, practices or procedures would be reflected in amendments to this manual as soon as practicable.

## CONTACT PORT

The Vancouver Fraser Port Authority is a port authority established pursuant to the *Canada Marine Act*, S.C. 1998 C. 10 as amended.

## CONTACT PERSON FOR PORT INFORMATION

24/7 Port Operations Centre +1 604 665 9086

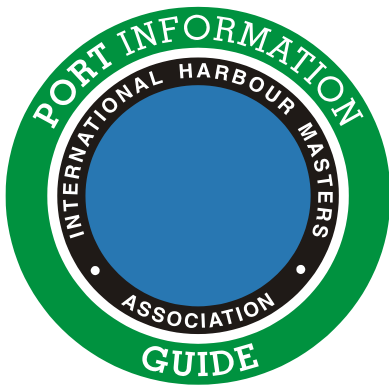
## WEBSITE OF THE PORT

[portvancouver.com](http://portvancouver.com)

## WEBSITE OF THIS DOCUMENT

<http://www.portvancouver.com/marine-operations/port-information-guide/>

# 14 Vessel Operations



## 14.1 GENERAL

Some vessel operations require notification, and in some cases additional requirements, before the work can proceed. To notify the port authority and request permission for certain work, application must be made electronically through the [Pacific Gateway Portal](#).

The following operations require a Vessel Service Request:

- Anchoring
- Taking bunkers or fueling
- Cargo hold inspection
- Engine immobilization
- Hot work
- Lifeboat servicing
- Shifting along a berth without a pilot
- Tanker transits
- Other service requests (including commercial diving operations)

For more information contact the Operations Centre at +1 604 665 9086 or [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com).

## 14.2 LOWERING BOATS AND RAFTS

The port authority is aware of the various national and international requirements for the exercising of lifeboats at designated intervals and will accommodate all such activities.

Prior to conducting lifeboat exercises the vessel must advise the Operations Centre through MCTS of their intentions including start and finish time. Pre-approval must also be granted by submitting a request through the Pacific Gateway Portal.

If lifeboats are lowered into the water, cast off from the falls and exercised under oars or power, they must remain within 50 metres of the vessel. Vessels at Canada Place are to ensure their lifeboats remain well clear of Seabus lanes and seaplane landing areas.

## 14.3 MAINTENANCE AND REPAIR

### IMMOBILIZING MAIN ENGINES AND TESTING PROPULSION

No vessel shall immobilize its main engines while alongside or engage/test its propulsion systems and machinery whilst alongside without the approval of the port authority. The Operations Centre will consider:

- The prevailing weather conditions, tide or current
- The type of berth and cargo operations
- The length of time the engines are expected to be immobilized or the machinery to be tested
- The characteristics of the vessel

If approval is given through a Vessel Service Request, then the vessel will be required to:

- Provide a continuous vigilant deck watch
- Advise Marine Communications and Traffic Services at the commencement and completion of the immobilization or machinery testing
- Provide continuous monitoring of VHF channel 12 in Burrard Inlet, VHF channel 74 in the Fraser River or VHF channel 11 in Deltaport/Roberts Bank
- Provide a minimum of four head/stern lines and two springs each end, under even tension. A vessel engaging/testing its propulsion systems and machinery requires additional head and stern mooring lines to be deployed

In some circumstances a tug may be required to stand by the vessel.

A tug must stand by a vessel that requires immobilizing its engines while at anchor. The tug must be of sufficient bollard pull to hold the vessel in place in the expected weather conditions.

Nothing in these procedures relieves the master of the vessel from his obligations for safety or from following additional precautions as would be required by the normal practice of seamen. These procedures are to be considered the minimum requirements.

### PAINTING OVER THE WATER

If a vessel would like to touch up the paint on the hull while alongside or at anchor, a vessel service request must be submitted.

Preparation of the area to be touched up is limited to rinsing with non-chlorinated fresh water, or wiping with a clean rag. Pressure washing of the hull is not permitted without written permission from the port authority. Pressure washing of the hull must be reviewed by VFPA- Environmental Programs, and must be requested at least 48 hours prior to the work.

All precautions must be taken to ensure that no paint or debris goes into the water, and precautions must be taken to ensure that any crew working over the side or at a height are safe and protected from falls.



## 14.4 UNDERWATER INSPECTION/ CLEANING

All persons wishing to perform recreational or commercial diving in the port must obtain permission from the port authority by completing a service request on Pacific Gateway Portal. Diving may only commence when the diving permit is completed in its entirety and approved by the Operations Centre.

The dive site shall be properly identified by appropriate buoys, flags or lights.

The port authority may not grant permission for proposed diving operations where these conflict with the safe operations of the port.

This section does not apply when the dive is to take place in a designated recreational diving area, such as at Cates Park.

## 14.5 ENVIRONMENTAL REQUIREMENTS

### EXHAUST GAS CLEANING SYSTEM (EGCS) WASH WATER DISCHARGE

The discharge of wash water from exhaust gas cleaning systems (EGCS) from all fuel combustion machinery (excluding engines in use for propulsion) into the environment is not permitted while a vessel is at anchorage or at berth within the Port of Vancouver. This applies to the wash water from open-loop and closed-loop EGCS. It does not apply to inert-gas scrubbers required by tankers for cargo operations and safety reasons. While in the Port of Vancouver, ships fitted with hybrid scrubbers shall switch to the closed-loop mode and operate the scrubber in a zero-discharge mode. Bleed-off from closed-loop scrubbers is prohibited and all EGCS wash water must be retained on the vessel in a holding tank or be disposed of at an authorized shore reception facility. If wash water cannot be recirculated, vessels must switch over to compliant fuel or shore power (where available). The change-over should be effected as soon as possible after arrival to anchorage or berth and as late as possible before departure. EGCS overboard discharge valves should be shut and secured/sealed in closed position while the vessels are in the Port of Vancouver. All vessels are required to electronically submit a 24-hour pre-arrival declaration through the 'Pacific Gateway Portal'.

### ECOACTION PROGRAM AND BLUE CIRCLE AWARD

The Vancouver Fraser Port Authority is committed to ensuring our operations remain environmentally responsible and sustainable, as well as safeguarding and promoting the protection of local wildlife. Vessels that go beyond the requirements to operate sustainably can receive recognition through the EcoAction program and Blue Circle Award Program. The EcoAction program includes gold, silver and bronze discounted harbour due rates, with those shipping lines that have the highest level of participation also eligible for a Blue Circle Award.

Additional information on the EcoAction program, harbour due rates and eligibility for discount can be found in the VFPA [Fee Detail Document](#).

Rate applications must be submitted online through the [Pacific Gateway Portal](#).

Questions or comments regarding the EcoAction program or the Blue Circle Award can be directed to the Operations Centre at +1 604 665 9086 or by email at [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com).

## ECHO PROGRAM

The Enhancing Cetacean Habitat and Observation (ECHO) Program is a Vancouver Fraser Port Authority led initiative aimed at better understanding and managing the impact of shipping activities on at-risk whales throughout the southern coast of British Columbia. Some of the key threats to whales in this region include: acoustic disturbance (underwater noise), physical disturbance (ship strikes), environmental contaminants, and the availability of prey.

The long-term goal of the ECHO Program is to develop mitigation measures that will lead to a quantifiable reduction in potential threats to whales as a result of shipping activities.

The Fisheries and Oceans Canada Recovery Strategy for killer whales identifies disturbance, including underwater noise, as one of the current threats impacting killer whales in British Columbia. Whales use sound to navigate, communicate, and locate prey. For this reason, underwater noise is a priority study area the ECHO Program is addressing.

Since 2014, the ECHO Program has undertaken numerous collaborative research initiatives to better understand and manage the cumulative effects of shipping activities on whales in our region, in particular the southern resident killer whales. Initiatives include voluntary seasonal slowdown and lateral displacement through key southern resident killer whale critical habitat. Check to see if the slowdown is active on the [ECHO Program](#).

Stay up to date on the ECHO Program initiatives by subscribing to the [ECHO newsletter](#).

For more information, and to see the infographic below, please go to the ECHO Program [webpage](#).

## THE EFFECTS OF VESSEL UNDERWATER NOISE ON WHALES AND WHAT MARINERS CAN DO ABOUT IT

### SOURCES OF NOISE

With the increasing number of naturally occurring sources in the ocean, an increase in commercial vessel traffic is the main reason for increased underwater noise.

In the North Pacific Ocean, underwater noise has been **DOUBLING** in intensity **EVERY DECADE** for the past **60 YEARS**.

**WHERE VESSEL NOISE COMES FROM**

- ENGINE AND ONBOARD MACHINERY
- DRAW FROM POOR HULL MAINTENANCE
- BOW THRUSTER THRUSTERS
- PROPELLER
- CAVITATION

Most underwater noise from large vessels is caused by propeller cavitation.

Sound travels **4.5 TIMES FASTER** in water than in air.

NOISE INCREASES WITH SPEED.

**IMPACTS**

Underwater noise interferes with the ability of marine animals to transmit and receive acoustic information.

**VESSEL NOISE CAN AFFECT THE ABILITY OF MARINE ANIMALS TO...**

- AVOID DANGER
- COMMUNICATE
- FIND PREY
- REST
- MATE AND REPRODUCE
- NAVIGATE

To join a real vessel in the region, the area's marine animals can communicate by **90%**.

### WHAT YOU CAN DO

In 2014, the International Maritime Organization (IMO) recognized that underwater noise associated with shipping is something that can be mitigated.

Options to reduce ship noise underwater already exist:

**SLOW DOWN**

Operate the vessel to avoid higher speeds and avoid 100% throttle use.

**MAINTAIN**

Clean hull and maintain waterline.

**OPTIMIZE**

Track the ship to avoid or reduce navigational restrictions and avoid shallow waters.

**DESIGN**

Minimize vessel design considerations during design and construction.

**REROUTE**

Modify routes to avoid critical habitat, sensitive areas and other high-use marine areas.

[READ THE GUIDELINES WWW.IMO.ORG](http://www.imo.org)

Be a leading Canadian Participant Operator on the IMO Program as a Vancouver Fraser Port Authority member and better understanding and managing the impact of shipping activities on at-risk wildlife throughout the waters of British Columbia, Canada. For more information and reports to file, please go to [portfraser.com/etche](http://portfraser.com/etche)

## VESSEL DISCHARGES

### a) Vessel garbage

Vessel garbage must be retained on board in suitable containers with properly fitted covers. Garbage removal services are available and must be used to properly manage the volume of garbage on board prior to sailing. Garbage, dunnage and scrap materials may not be dumped in Canadian territorial waters. The use of shipboard incinerators is not permitted when in the jurisdiction of the port authority.



## b) Discharge of Liquids

The term “vessel discharges” refers to the discharge of any liquids from a vessel other than ballast water.

No person or vessel is allowed to illegally discharge any pollutant into the water within the port.

Information surrounding the discharge of liquids from vessels, including distances offshore and areas where such activities may be permitted, can be found in the [Vessel Pollution and Dangerous Chemical Regulations](#) within the *Canada Shipping Act* (CSA 2001).

## c) Accidental discharge

All accidental vessel discharges must be reported immediately to report to Canadian Coast Guard Environmental Response on VHF Channel 16 or by phone 1 800 889 8852 (24 hours) . If the discharge contains oil or other deleterious substances, the vessel must immediately activate its pollution response plan.

## d) Black and Grey Water Discharge

The discharge of black water (waste from toilets) and grey water (waste from sinks, showers and drains) into the environment, by any vessel certified to carry more than 15 passengers or over 400 tons, is not permitted within the Port of Vancouver unless an overview of the Transport Canada approved waste water treatment plant is provided to the port authority and accepted.

Pleasure craft must also ensure they comply with the regulatory restrictions and best management practices related to the discharge of black water and grey water within the port.

All vessels should be retaining black/grey water on board, using pump out facilities as appropriate, or arranging for a collection barge/vessel to properly dispose of the waste while in the port.

In extreme circumstances, permission may be granted for the discharge of grey water into the environment from a deep sea vessel provided it is deemed by the port authority not harmful to do so. A test for harmful substances/bacteria must be completed prior to any discharge. Contact the Operations Centre for more information.

Anyone who suspects a vessel is or has discharged black and/or grey water is urged to record the incident (photo/video and details) and report it to appropriate authorities.

For concerns related to non-compliance of pleasure crafts, contact Transport Canada’s Office of Boating Safety at 604 666 2681.

Concerns related to sewage discharge can be reported to the BC Provincial Emergency Program at 1 800 663 3456.

For all other marine pollution incidents, report to Canadian Coast Guard Environmental Response on VHF Channel 16 or by phone 1 800 889 8852 (24 hours).

Accidental discharges and/or reports of non-compliance related to black and grey water discharge by deep sea or other commercial vessels should also be reported to the operations center at 604 665 9086.

For more information on compliance with sewage discharge regulations, refer to the Transport Canada's *Complying with Sewage Discharge Regulations* image below.

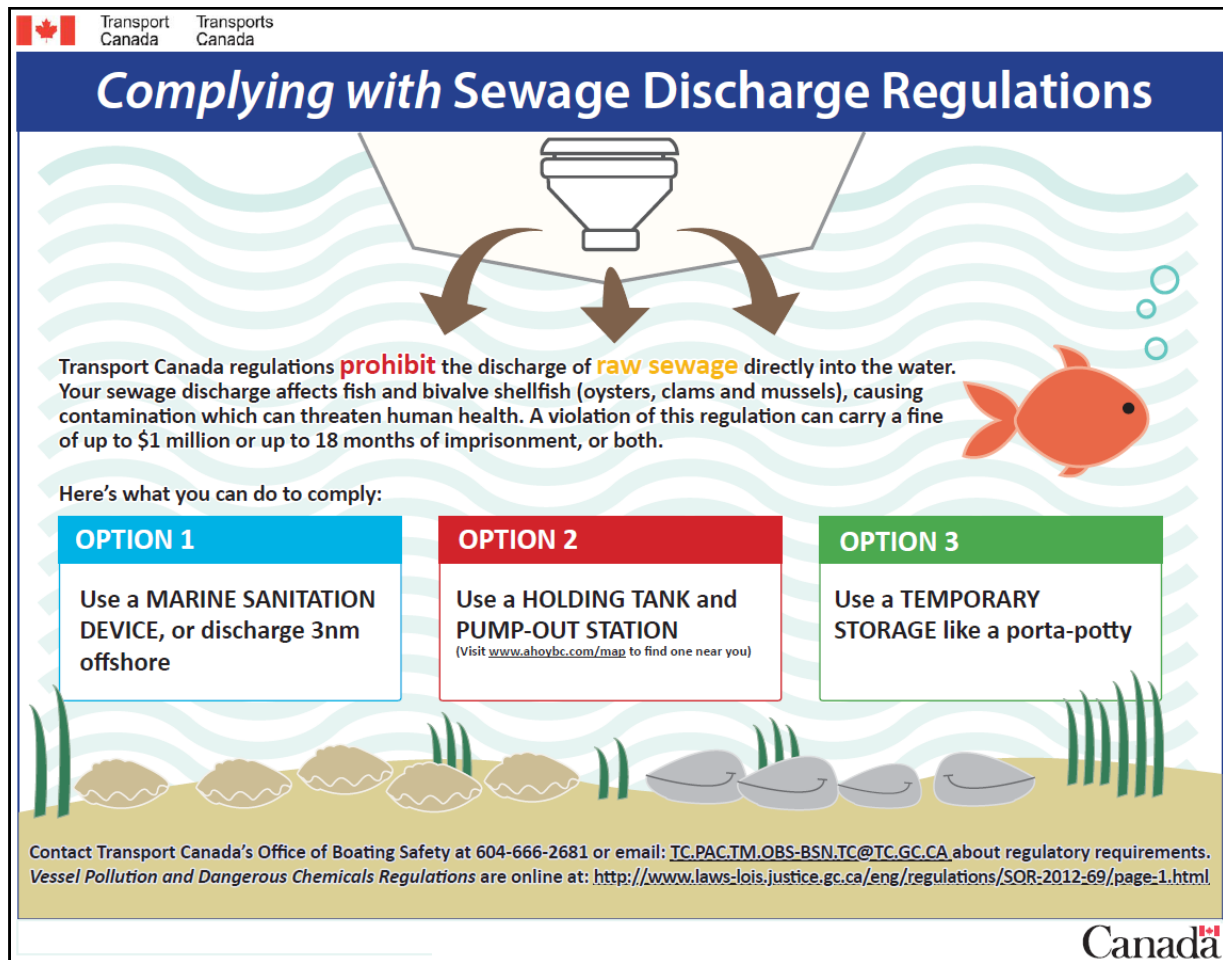


Image – Transport Canada Office of Boating Safety – Complying with Sewage Discharge Regulations

## e) Bilge and Sludge Discharge

All bilge and sludge discharge operations must receive prior approval from the Operations Centre and will be handled on a case-by-case basis. If the operation is to be carried out while the vessel is alongside, the terminal operator will also have to grant permission. If approved, the vessel must follow the same transfer procedures and safety checks for a bunkering operation as per Section 14.7 of this document.

## f) Hold washing discharge

All hold washing operations will be approved on a case-by-case basis by the Operations Centre. If a hold washing operation has been approved, all residual washings must be discharged through an approved disposal method to a shore-side facility or retained onboard.

## 14.6 ANCHORAGE PROCEDURES

### GENERAL

These practices and procedures are made pursuant to the *Canada Marine Act* [section 56 subsection \(1\) \(b\)](#) and have been developed for the purpose of promoting safe and efficient use of anchorages utilized by deep-sea ships calling at facilities within the port.

Deep sea vessel anchorages within the port are established to serve vessels calling the port that require anchorages as part of an international voyage.

All permanent anchorages are indicated in the appropriate nautical charts and publications produced by the Canadian Hydrographic Service. Temporary short term-use anchorages may also be authorized by the harbour master in case of emergency or operations for which a suitable berth is not available.

Nothing in these procedures relieves the master of the vessel from their obligations for safety or from following the requirements under any applicable international or Canadian statutes, regulations and guidelines.

### ANCHORAGES

The main anchorages serving ships calling the port facilities are located in Burrard Inlet and are known as: English Bay anchorages (North and South), Inner Harbour anchorages and Indian Arm anchorages.

Other anchorages include short term anchorages operating more as holding areas for vessels calling Fraser River terminals and Roberts Bank terminals as well as a number of emergency anchorages strategically located in the main anchoring areas. For a full list of anchorages and their particulars see the anchorage tables in this section.

Inner Harbour anchorages are assigned as short term anchorages to vessels that require sheltered waters and better accessibility to port services such as bunkering as well to facilitate transit of Second Narrows when needed. With the exception of tankers, the period might be extended on request if there are no other ships requiring Inner Harbour anchorages.

Anchorage in English Bay and Indian Arm are assigned for a period of up to seven days. The period might be extended on request if there are no other ships requiring anchorages in English Bay or Indian Arm.



## ANCHORAGE ASSIGNMENTS

The port authority assigns anchorages to deep sea vessels on a first come first served basis, as available and in accordance with suitability criteria and other restrictions outlined in this document. For the purposes of this section “first come” refers to the time the vessel would arrive at the anchorage

Anchorage requests can be made online through the Pacific Gateway Portal as soon as it is known that a vessel requires the use of an anchorage. The Operations Center will assign a suitable anchorage based on availability and vessel’s estimated time of arrival at anchorage. The Operations Centre can be contacted 24/7 at +1 604 665 9086, [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com).

In the event a vessel has stayed longer than seven days at an anchorage in English Bay or Indian Arm, and the anchorage is required by another vessel, the vessel will be required to shift to a berth, or to an anchorage in Nanaimo or the Gulf Islands upon direction from the Operations Center pursuant to *the Canada Marine Act* Section 58. The port authority will endeavor to inform the ship’s agent of a required shift with as much notice as possible.

## NON-AVAILABILITY OF ANCHORAGES

There may be times that there is no suitable anchorage available for a vessel. The port authority will endeavor to inform the ship’s agent of a non-availability with as much notice as possible.

If there is no suitable anchorage available in the port, a vessel will need to find another suitable anchorage. There are anchorages available in Nanaimo and throughout the Gulf Islands. These anchorages are assigned by the Nanaimo Port Authority and MCTS/BC Coast Pilots respectively.

If a vessel has to anchor in Nanaimo or in the Gulf Islands to await a berth in the Port of Vancouver due to non-availability of anchorages in the port, the vessel may be considered to have arrived at the Port of Vancouver for the purposes of issuing a notice of readiness to load or discharge at a terminal in the port.

If a vessel has to anchor outside of the Port of Vancouver in between two or more berths in Vancouver or the Fraser River due to non-availability of anchorages in the port, or due to the vessel overstaying the seven day limit, it will be considered as one call for the purposes of harbour dues.

## IMPROPERLY ANCHORED VESSELS

It is the responsibility of the ship’s master to ensure the vessel is anchored correctly and a proper watch is maintained. In case MCTS and/or the Port Authority Operations Center determine that the vessel is outside its assigned anchorage area, a pilot will be ordered on behalf of the vessel to confirm the anchorage position and, if needed, reposition the vessel accordingly. The vessel is responsible for all associated costs.

## SAFETY FACTORS

The master of a ship is ultimately responsible for assessing the suitability of the anchorage assigned to them. In doing so, the master must ensure that the vessel is equipped with sufficient anchor chain length to ensure that the anchor chain meets the required scope for the depth of the assigned anchorage at all times.

Ships at anchor are required to retain an adequate amount of ballast onboard and ensure that a minimum trim by the stern as well as sufficient propeller immersion, in order to not adversely affect ship manoeuvrability.

The master of a vessel at anchor must ensure that:

- The anchor is properly and firmly set, prior to the pilot departing the vessel
- The latest edition of the largest scale chart is used at all times for taking vessel positions

Ships proceeding to the North English Bay anchoring area, specifically an anchorage 16, 17 or 18, are required to:

- Have a chain scope (i.e. ratio of chain length to depth) of six as the minimum required to develop the full holding power of the anchor
- Exercise extra caution when exposed to winds over 20 knots from any direction, including:
  - a) Closely monitor distances to shore and to adjacent ship at anchor, to ensure that they are being maintained
  - b) Have the main engines and propulsion gear immediately available for use
  - c) Have the windlass arrangement and anchoring equipment in good working condition

Vessels at anchor must not immobilize their main engine or propulsion gear at anchor without permission from the port authority. If emergency repairs are required, permission may be granted, provided a tug or tugs of adequate power are kept in attendance.

## WATCH-KEEPING STANDARDS

All ships at anchor must maintain a continuous navigational watch at all times and never leave the navigation bridge unattended.

The officer in charge of the navigational watch must follow the requirements contained in the [Standards of Training, Certification and Watch-keeping Code](#), as amended as well as be guided accordingly by these practices and procedures, complementary to the STCW watch-keeping standards.

In maintaining an anchor watch, the officer in charge must ensure to:

- Correctly place the initial anchor position on the appropriate chart
- Conduct position fixing by ranges and bearings to monitor anchor dragging and uses radar and GPS alarm rings only as an additional warning tool
- Monitor weather conditions in case they change appreciably
- Check the anchor chain regularly
- Monitor reports of the local vessel traffic services

- Immediately call the master and take appropriate action if anchor starts dragging or safety margins are otherwise compromised

## NOISE AND LIGHTS

All vessels, while at anchor, should minimize noise levels and light usage in consideration of local residents.

The following guidelines apply to all vessels anchoring within the Port of Vancouver.

### Noise:

- Generator usage should be reduced to the minimum required generator(s) to operate essential services and systems
- External doors and hatches to machinery spaces must be kept closed as much as possible
- Power tools and chipping hammers usage must be kept to a minimum and is not permitted on deck between sunset and sunrise
- Loud hailer and ship's whistle usage should be limited, except as required by the *Collision Regulations* or by an emergency

### Lights:

- Deck lights must be kept to a minimum consistent with the safety and security of the vessel
- Lighting used to illuminate a vessel's decks must be aimed downward, and not outward or toward the shore

## ADVERSE WEATHER CONDITIONS

A wind warning advisory will be broadcast on VHF 12 by MCTS to all vessels at anchor in the port when winds from any direction reach or exceed 25 knots. The wind warning advisory will be cancelled when winds have abated below 25 knots for over one hour.

When a wind warning advisory is in effect for ships at anchor, a continuous navigational and engineering watch as when under way must be maintained by all ships at anchor.

Be prepared to take early and effective action including: letting out more chain, use of engines to maintain position and calling for a pilot if repositioning of the vessel is required.



## ANCHORAGES (TABLES)

### English Bay

<b>Anchorage</b>	<b>Coordinates</b> Latitude ° ' '' Longitude ° ' ''	<b>Maximum Vessel Length Overall</b> (metres)	<b>Depth at Centre of Anchorage</b> (metres)	<b>Control Depth within Anchorage Area</b> (metres)	<b>Notes</b>
English Bay Anchorage 1	49 17 57 N 123 14 19 W	400	60	48	Cape size capable
English Bay Anchorage 2	49 17 33 N 123 13 53 W	260	37	14	
English Bay Anchorage 3	49 18 04 N 123 13 33 W	400	45	37	
English Bay Anchorage 4	49 17 39 N 123 13 11 W	260	37	28	
English Bay Anchorage 5	49 17 15 N 123 12 42 W	230	21	12	
English Bay Anchorage 6	49 18 12 N 123 12 48 W	400	40	30	Cape size capable
English Bay Anchorage 7	49 17 47 N 123 12 25 W	260	27	23	
English Bay Anchorage 8	49 17 22 N 123 11 59 W	230	19	16	
English Bay Anchorage 9	49 16 56 N 123 11 33 W	190	12.3	10	
English Bay Anchorage 10	49 18 19 N 123 12 03 W	400	30	24	Cape size capable
English Bay Anchorage 11	49 17 54 N 123 11 38 W	260	25	19	
English Bay Anchorage 12	49 17 29 N 123 11 14 W	230	18	14	
English Bay Anchorage 13	49 17 05 N 123 10 49 W	190	11.8	10	
English Bay Anchorage 14	49 18 25 N 123 11 19 W	400	24	21	Cape size capable
English Bay Anchorage 15	49 18 01 N 123 10 53 W	260	19	17	
English Bay Anchorage 16	49 19 57 N 123 13 08 W	260	40	20	
English Bay Anchorage 17	49 19 56 N 123 13 54 W	260	52	32	
English Bay Anchorage 18	49 19 55 N 123 14 39 W	260	55	32	
English Bay Anchorage Uniform (U)	49 17 45 N 123 15 13 W	400	47	28	Short term only

English Bay Anchorage Zulu (Z)	49 17 09 N 123 10 00 W	100	10.3	9	
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### Inner Harbour

<b>Anchorage</b>	<b>Coordinates</b> Latitude ° ' '' Longitude ° ' ''	<b>Maximum Vessel Length Overall</b> (metres)	<b>Depth at Centre of Anchorage</b> (metres)	<b>Control Depth within Anchorage Area</b> (metres)	<b>Notes</b>
Inner Harbour Anchorage Alpha (A)	49 18 11 N 123 05 26 W	300	35	24	
Inner Harbour Anchorage Bravo (B)	49 18 06 N 123 04 46 W	260	23	19.4	
Inner Harbour Anchorage Charlie (C)	49 18 01 N 123 04 11 W	260	21	16.2	
Inner Harbour Anchorage Delta (D)	49 17 39 N 123 05 03 W	300	35	29.8	Emergency Anchorage; Assigned at discretion of the harbour master
Inner Harbour Anchorage Echo (E)	49 17 44 N 123 03 55 W	230	16	15.7	
Inner Harbour Anchorage Whiskey (W)	49 17 43 N 123 05 54 W	300	55	30	Short term only; pilot to remain onboard
Inner Harbour Anchorage X-ray (X)	49 18 17 N 123 06 05 W	185	20	17	
Inner Harbour Anchorage Yankee (Y)	49 18 01 N 123 03 35 W	260	16	14.8	Short term only; pilot to remain onboard

## Indian Arm

<b>Anchorage</b>	<b>Coordinates</b> Latitude ° ' '' Longitude ° ' ''	<b>Maximum Vessel Length Overall</b> (metres)	<b>Depth at Centre of Anchorage</b> (metres)	<b>Control Depth within Anchorage Area</b> (metres)	<b>Notes</b>
Indian Arm Anchorage Kilo (K)	49 18 03 N 122 56 41 W	185	27	15.3	
Indian Arm Anchorage Lima (L)	49 17 59 N 122 56 06 W	250	18.5	15.2	
Indian Arm Anchorage Mike (M)	49 18 23 N 122 56 17 W	250	25.5	17.8	Use only if no other suitable anchorages are available
Indian Arm Anchorage November (N)	49 17 38 N 122 58 03 W	185	16	15.3	Outbound vessels waiting for transit window

## Roberts Bank

<b>Anchorage</b>	<b>Coordinates</b> Latitude ° ' '' Longitude ° ' ''	<b>Maximum Vessel Length Overall</b> (metres)	<b>Depth at Centre of Anchorage</b> (metres)	<b>Control Depth within Anchorage Area</b> (metres)	<b>Notes</b>
Roberts Bank Anchorage Romeo (R)	49 00 46 N 123 12 14 W	320	70	40	Short term only; pilot to remain onboard

## Sandheads

<b>Anchorage</b>	<b>Coordinates</b> Latitude ° ' '' Longitude ° ' ''	<b>Maximum Vessel Length Overall</b> (metres)	<b>Depth at Centre of Anchorage</b> (metres)	<b>Control Depth within Anchorage Area</b> (metres)	<b>Notes</b>
Sandheads Anchorage Sierra (S)	49 07 45 N 123 18 29 W	320	70	40	Short term only; pilot to remain onboard



## 14.7 BUNKERING AND FUELING

### GENERAL

**Bunkering** refers to the supply and transfer of fuel oil, lube oil, diesel, LNG or any other petroleum product in bulk for the purpose of fueling or maintaining engines to a **deep-sea Vessel**.

**Fueling** refers to the supply and transfer of fuel oil, lube oil, diesel, LNG, gasoline or any other petroleum product in bulk for the purpose of fueling or maintaining engines to **any vessel that is not a deep-sea vessel**.

Bunkering and fueling may take place at anchor or alongside. It may be pumped from a bunker barge, another tanker or ship, or a road tanker, with the exception of a road tanker afloat on a deck barge when the liquid to be transferred is defined as a Class 3 flammable liquid, or a marine pollutant by the *International Maritime Dangerous Goods Code*. Irrespective of the method and provider, the practices and procedures outlined herein apply to all vessels receiving bunkers or fuel within the port.

These procedures are developed to enhance safe bunkering and fueling operations within the port. They cover pre-delivery, actual delivery and post-delivery requirements, checks and documentation related to bunkering operations.

All parties involved in the planning and delivering of bunker services, must be fully aware of the bunkering practices and procedures as well as of any additional requirements issued and enforced by specific terminal operators.

The bunkering practices and procedures are designed to be used as complementary to other existing safety controls and regulations that govern shipping safety and in no way supersede or make such controls and regulations irrelevant.

Requirements for bunkering with liquid natural gas (LNG) are contained at the end of this section.

### BUNKER SUPPLIERS

Companies that supply bunker oil to vessels that call the Port of Vancouver are required to register with the port authority. Bunker suppliers are subject to an annual accreditation program. Only registered bunker suppliers participating in the annual accreditation program are authorized to conduct bunker operations in the port. Contact the Port Operations Centre for further details.

## BUNKERING ALONGSIDE OR AT ANCHOR

- To allow for the efficient utilization of anchorages and not generate unnecessary extra traffic in port areas, ships that have an opportunity to bunker alongside should do so.
- Vessels in the inner harbour that are unable to bunker alongside due to time constraints or other safety reasons may bunker at anchorage.
- In order to eliminate unnecessary traffic, tankers that plan to make a stop at a location east of Second Narrows should schedule to bunker in that location.
- Vessels 275 metres in length or greater requiring a transit of the First Narrows for bunkering purposes only should plan to do so prior to loading, when possible.

## BUNKERING PORT AREAS

Bunkering may occur alongside a berth or at anchorage. Procedures and restrictions that affect bunkering vary depending on the area of the port where the vessel is.

Burrard Inlet: English Bay anchorage areas, north and south; Vancouver Harbour (west portion), which is the area between First and Second Narrows (also known as Inner Harbour).

Vancouver Harbour (east portion), which is the area east of Second Narrows.

Fraser River: bunkering can only occur alongside a berth; there are no long term designated anchorages in this area.

Roberts Bank: Transportation of bulk liquid cargoes at Roberts Bank area is not currently permitted. This restriction also applies to bunkering services in this area until such time as a comprehensive assessment of the environmental impacts is conducted and appropriate control measures are developed.

### a) Bunkering in English Bay

English Bay anchorages exposed to higher wind speeds and wave activity than anchorages in Burrard Inlet and the weather conditions in this area may change on short notice. Vessels of any size may carry out bunkering operations in English Bay to allow better management of vessel traffic in the Inner Harbour. In such cases, the following restrictions will apply:

- Bunkering operations shall not proceed when winds are blowing or forecast to blow above force 5 (i.e. 17 -21 knots)
- Bunkering operations must be completed or ceased six hours prior to inclement weather.
- The port authority uses the following official government [website](#) for weather forecasts.
- An attending tug must remain on site and ready to render assistance during the entire bunkering operation (does not apply to self-propelled delivery vessels).
- Registered bunker suppliers may be subject to further restrictions based on the LOA of the receiving vessel, check with the Port Operations Center for further details.

Nothing in this section shall relieve or preclude the master of the delivery vessel from its responsibility to take or execute any decision which, in the master's professional judgment, is necessary for the safe navigation and operation of their vessel.

### b) Bunkering in the Fraser River

Bunkering of deep sea vessels calling at Fraser River terminals may occur only alongside a safe berth. Due to changing river conditions, passing traffic and terminal layout, a tug capable of handling the bunker barge is required to be in attendance while bunkering of deep sea vessels at any of the Fraser River terminals.

Bunkering operations at Fraser Surrey Docks and Annacis Auto Terminal may impede the safe movement of other vessels at these terminals. To address this issue, bunkering operations at either terminal must be coordinated as outlined below:

### Bunkering at Fraser Surrey Docks

Bunkering agents are required to work with the terminal to avoid conflicts between bunkering and vessel berthing schedules at FSD.

Bunkering agents must advise by email their bunkering schedule at least 24 hours in advance to:

- Fraser Surrey Docks: [superintendents@fsd.bc.ca](mailto:superintendents@fsd.bc.ca)
- Pacific Pilotage Authority: [info@ppa.gc.ca](mailto:info@ppa.gc.ca)
- Vancouver Fraser Port Authority: [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com)
- Victoria Traffic: [RMIC-Pacific@pac.dfo-mpo.gc.ca](mailto:RMIC-Pacific@pac.dfo-mpo.gc.ca).

A stand-by tug must be in attendance of bunker barges moored alongside or otherwise at Fraser Surrey Docks. If a towing company is used, it is the responsibility of the bunkering agent to ensure the towing company is aware of the bunkering and berthing schedule.

When bunkering operations are under way, tug masters are required to maintain communication with Victoria Traffic on VHF Channel 74 to monitor for deep-sea traffic that may affect bunkering operations and advise when bunkering operations begin and complete.

In the event a ship must transit past a berth within the same breakwater where a bunkering operation is underway, the barge must be removed to allow for the safe and timely transit of arriving, shifting or departing vessels.

### Bunkering at Annacis Auto Terminal

Bunkering at this terminal may impede vessels arriving or departing from Fraser Surrey Docks (FSD). The following procedure applies to the safe management of bunkering operations at this terminal:

Bunkering agents must advise by email their bunkering schedule at least 24 hours in advance to:

- Annacis Auto Terminal (AAT)
- Pacific Pilotage Authority: [info@ppa.gc.ca](mailto:info@ppa.gc.ca)
- Vancouver Fraser Port Authority: [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com)
- Victoria Traffic: [RMIC-Pacific@pac.dfo-mpo.gc.ca](mailto:RMIC-Pacific@pac.dfo-mpo.gc.ca).

A stand-by tug must be in attendance of bunker barges moored alongside. If a towing company is used, it is the responsibility of the bunkering agent to ensure the towing company is aware of the bunkering and berthing schedule.

In the event a ship requires to maneuver for arrival or departure at FSD, the bunker barge, at the discretion of a Fraser River pilot must be removed to allow appropriate swing room for the ship.

When bunkering operations are under way, tug masters are required to maintain communication with Victoria Traffic on VHF Channel 74 and deep-sea vessels that will be passing AAT to clarify whether the barge is required to be moved or not. They shall also advise VTS when bunkering operations begin and complete.

Bunkering agents should consider the anticipated deep sea vessel movements when scheduling bunkers at AAT.

When assessing the requirement for a barge to move, a Fraser River pilot will take into consideration items including, but not limited to:

- The berth the vessel is maneuvering from or to
- Whether the vessel will berth port or starboard side alongside
- The size of the vessels involved
- The prevailing wind and weather conditions

## BUNKERING OPERATIONS

All bunkering operations must be carried out in accordance with the latest edition of ISGOTT and the additional information provided in these practices and procedures.

The master of every vessel engaged in bunkering operations shall appoint an officer to be in charge of bunkering operations who is fluent in English. English is the language to be used during all aspects of the bunkering operation.

The bunkering checklist (Appendix C) must be kept on file for at least one year and a copy emailed to the Operations Center at [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com) after bunkering is completed.

When bunkering alongside a berth, both receiving vessel and the bunker vessel or road tanker must be fully aware of the specific requirements issued by the terminal operator as applicable.

The use of a proper gangway between vessels is required during bunkering operations. The gangway must be safely and securely fastened at all times.

## NOTIFICATIONS

Bunker suppliers must advise their bunkering schedule by email at least 24 hours in advance to:

- The Operations Center at [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com)
- The appropriate terminal operator when bunkering occurs alongside a berth.

The master of bunkering vessels (or the driver of the road tanker in the case of land transfer) shall contact the Operations Center via phone at +1 604 665 9086 or via VHF through MCTS providing:

- the berth / anchorage and the time that bunkering will commence



- A verbal report on the completion of requirements below

## BEFORE BUNKER TRANSFER COMMENCES

The master of a bunker barge shall not begin a transfer before:

- The bunker barge is securely moored in accordance with a mooring plan that is pre-arranged between the bunker vessel and the receiving vessel
- Reliable communication methods that will enable an immediate shutdown have been established and can be maintained throughout the operation
- The receiving vessel has provided a safe means of access to the bunker vessel crew in accordance with the relevant regulations made pursuant to the *Canada Shipping Act* and the *Marine Occupational Safety and Health Regulations*
- The hoses are in good condition and tested in accordance with the appropriate Canadian standard or as per ISGOTT
- The hoses are well supported, of sufficient length to allow for movement of vessels and well rigged to not be damaged by the movement of the vessel
- The bunker safety checklist has been truthfully completed and, with all questions answered in the affirmative, completed and signed by the masters of both the bunker vessel and the receiving vessel
- The Operations Center has been contacted and notified accordingly

## ENFORCEMENT

The port authority patrol vessel or any authorized officer of the port authority may attend a bunkering operation to verify that these procedures are being followed.

If deviation from these procedures is identified and if safety of the operation requires, bunkering may be stopped until such time as the situation is remedied.

## SPILL RESPONSE

In the event of a spill during the handling or storage of bunker or fuel products, all operations must be immediately stopped and vessels involved must activate their SOPEP. The spill must be reported to the regional marine information centre pollution line +1 800 889 8852 or via VHF on channel 12 for Vancouver, channel 11 for Victoria and channel 74 for Fraser River traffic.

The bunker vessel must be equipped to stop the bunkering supply pumps immediately from a place close to the manifold on the bunker vessel.

Each bunker vessel must have portable, approved VHF and portable sirens marked “emergency signal” for attracting attention in the event of an emergency.

## BUNKERING DURING CARGO OPERATIONS

When bunkering alongside a berth, caution must be exercised to maintain a safe distance between bunkering operations and other concurrent activities (i.e. cargo loading operations, heavy equipment operating and movement of loads on and above dock).

Bunkering alongside must be scheduled so that:

- There is no interference with cargo operations or other activities under way
- Personnel involved in the bunkering operation on board remain dedicated to this operation only and have no other tasks

## DE-BUNKERING

Occasionally, vessels may need to off-load bunkers due to the vessel receiving wrong grade(s) of bunker fuel or the need to enter a local shipyard for repairs, docking, etc. Ships requesting de-bunkering operations will need to obtain permission from the port authority and follow these practices and procedures as applicable.

## BUNKERING WITH LIQUID NATURAL GAS (LNG)

Vessels using liquid natural gas as a fuel must receive approval from Transport Canada. They must also comply with all operating practice and procedure requirements that pertain to their specific vessel type and company, as established by Transport Canada.

The port authority is a member of the Society for Gas as a Marine Fuel (SGMF) and recognizes the recommended competence guidelines for the supply and bunkering of LNG for marine vessels.

Vessels transferring LNG ship-to-ship, shore-to-ship or truck-to-ship must use a recognized bunkering checklist. Included in this guide, Appendix E LNG Bunker Checklist, is an example of a recognized bunkering checklist for ship-to-ship transfers. Recognized checklists for ship-to-ship, shore-to-ship and truck-to-ship can also be found [online](#).

After bunkering is completed, a recognized LNG bunkering checklist must be kept on file for at least one year and a copy must be emailed to the Operations Center at [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com).

Any incidents involving LNG used as a fuel on a vessel must be reported to the Operations Centre at 604.665.9086 or [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com).

## FUELING OPERATIONS

All fueling operations must be carried out in accordance with best practices and the additional information provided in these practices and procedures.

English is the language to be used during all aspects of the fueling operation.

Commercially operated vessels such as tugs, fishing vessels, passenger ferries and water taxis must complete applicable sections of the safety checklist (Appendix C) to be kept on file for at least one year. The completed safety checklist must be produced when asked for by a representative of the Vancouver Fraser Port Authority.

Both the receiving vessel and the supplier of fuel must be fully aware of the specific requirements in the safety checklist.

Safe access between vessels is required during fueling operations. The gangway or access must be safely and securely fastened at all times.

## 14.8 TANKER OPERATIONS

### GENERAL

All oil tankers while in the port must conduct all of their operations in accordance with the safety standards set out in the latest edition of *The International Safety Guide for Oil Tankers and Terminals* (ISGOTT).

Tankers carrying, loading or discharging bulk liquid cargoes other than oil or petroleum products must comply with any applicable sections of ISGOTT as appropriate.

### HOT WORK

Hot work taking place on board tankers represents an increased risk than hot work on other vessel types. When submitting a service request for hot work, it must be noted that the work is proposed to take place on a tanker.

In addition to the requirements for hot work in the service request, safety precautions for hot work in the latest addition of *The International Safety Guide for Oil Tankers and Terminals* (ISGOTT) will be considered before approving the work.

### REPORTING

The master of a tanker in a loaded or non-gas free condition must obtain permission from the authority to enter the port limits.

In order to receive permission, the master shall provide the Operations Centre with the following information at least two working days in advance of the vessel's arrival:

- A complete list of all bulk liquid cargo on board
- The generic (technical) name of each product
- I.M.O. class of each product when applicable
- Tank stowage and quantities of each product
- Slops remaining on board
- Products to be loaded, discharged and intended terminal rotation (if applicable)
- Vessels estimated time of arrival and estimated time of departure
- Small locally owned tankers that regularly trade in and out of the port might be exempt from these reporting procedures

### TANK ATMOSPHERE

The master or responsible officer shall ensure that at all times during a tanker's call to the port, the tank atmosphere remains within safe parameters of flammability and pressure.

Every oil tanker shall at all times maintain a positive inert gas pressure with an oxygen content of less than 8 percent by volume, with the exception of tanks that are gas-free for inspection or other work.

If an oil tanker arrives at the port in a gas free condition, her tanks must be inerted prior to loading.

While any oil tanker is loading or alongside a terminal in the port that is equipped with an operational reception system for vapour recovery, the system shall be utilized. Before disconnecting from any vapour emission control system or departing a berth, the master or responsible officer shall ensure that any excess tank pressure has been vented into the system taking into account the forecast ambient temperature and the characteristics of the cargo.

As much as possible, venting into the atmosphere through the mast riser within the port shall be avoided.

Any defect with any component of the inert gas system on board a tanker, including the pressure/vacuum valves or breaker shall be reported to the Operations Centre at +1 604 665 9086 or [harbour\\_master@portvancouver.com](mailto:harbour_master@portvancouver.com).

In general, with the exception of emergencies, purging and gas-freeing operations are not permitted within the port.

## TANK CLEANING (TANKERS)

Crude oil washing (COW) is permitted as required by *MARPOL*, provided that it is carried out as per all requirements in the *International Safety Guide for Oil Tankers and Terminals* (ISGOTT)

Tank washing, with water using the COW machines, may be permitted by the port authority, provided it does not involve venting to the atmosphere, entering any tanks, and all slops can be retained on board or discharged to a reception facility. Additionally, it must be confirmed that the tank atmosphere is inerted and non-flammable. To receive permission a Vessel Service Request must be submitted through the Pacific Gateway Portal.

Any cleaning of cargo tanks involving entry of personnel will need to be carried out as per all requirements in the *International Safety Guide for Oil Tankers and Terminals* (ISGOTT) and other applicable safety guidelines. Please contact the Operations Centre with as much notice as possible if work of this nature is required.

## LIGHTERING

The lightering of petroleum products to tankers at anchor introduces an additional risk of pollution incidents by the double handling of the product. Therefore it will only be allowed at the discretion of the port authority.

Permission to lighter may be granted after every effort has been made, including the arrangement of loading rotation, to ensure that lightering is the only possible means of loading.

Lightering operations to tankers will only take place at anchorages K, L or M.

Prior to pumping product, the safety check list must be completed by the receiving vessel and the delivery vessel.

When transferring petroleum products, a boat provided with a minimum crew of two, equipped with cleanup materials and sufficient containment boom to surround the lightering operation, will stand by at the vessels at all times during the transfer operation.

When the product being lightered is diesel fuel oil or heavier, the containment boom must be deployed around the vessels at all times while product is being transferred.

Only product being lightered from the local oil pipeline terminals will be considered for transfer at anchor. Product being barged in for export from other sources, such as the United States, will not be allowed to lighter to tankers at anchor.

Request, in writing, from the ship's agent will be considered for the approval of a transfer operation only after proof that all other alternatives have been exhausted.

The port authority may alter these conditions at any time without notice.

The port authority may terminate the practice of lightering at its discretion without consultation.

## COMBINATION CARRIERS – OIL, BULK, ORE

The above requirements shall not apply if either of the following criteria are met:

The vessel's master or representative produces, before arrival, a properly completed "Certificate of Class" satisfying the authority that the vessel has been re-classified for the carriage of dry-bulk cargoes only.

Or

There is produced to the port authority's satisfaction, a letter from the vessel's master or representative, stating that the vessel has not carried oil cargoes of any description since the last quadrennial survey.

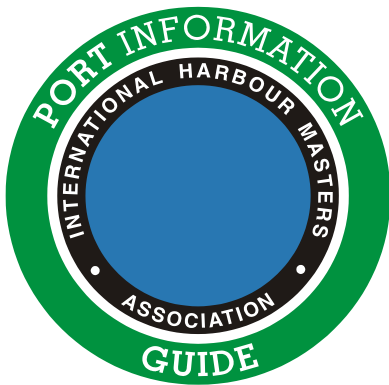
Prior to arriving at the loading berth for dry bulk cargo the vessel must have:

- All cargo compartments designed for dry bulk loading thoroughly cleaned and declared gas free. All other holds to be gas free, inerted or ballasted
- All wing or side tanks which have previously contained oil, but are not used for dry bulk must be thoroughly cleaned, gas freed or inerted
- Oil slop tanks unless gas free must be inerted to maintain a maximum of eight percent oxygen content in the system at constant positive pressure
- A certificate from a qualified marine chemist for the current conditions existing under the items above as of time of arrival at the port is required. This certificate shall be valid for a period of 48 hours before entering a loading berth. Should entry be delayed beyond that time, than a further check will be required within 48 hours of the vessel proceeding to the loading berth.

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# 15 Port Inspections



## 15.1 GENERAL

This chapter describes relevant inspections that one can expect in the port.

## 15.2 INSPECTIONS FROM PORT STATE CONTROL

The Tokyo Memorandum of Understanding (MOU) and Paris MOU on port state control both aim at eliminating substandard shipping by ensuring compliance with applicable international conventions. Canada was a driving force in the creation of the Tokyo MOU, which focuses specifically on the Asia-Pacific region, and has been a member since its inception in December 1993. Ship inspections are carried out by marine safety inspectors (MSI) from the marine safety branch of Transport Canada. An inspection database and list of detained ships are maintained by the headquarters group at Transport Canada.

More information on port state control can be found on Transport Canada's [port state control website](#).

## CONTACT DETAILS

Transport Canada Marine Safety and Security (AMSEA), Tower C, Place de Ville, 330 Sparks Street, 10th Floor, Ottawa, ON K1A 0N5

Email: [oepepe@tc.gc.ca](mailto:oepepe@tc.gc.ca)

Telephone: +1 855 859 3123 (Toll Free) or +1 613 991 3135 (local)

Teletypewriter / TDD: +1 888 675 6863

Facsimile: +1 613 993 8196

## 15.3 INSPECTIONS FROM OTHER PARTIES

### INSPECTIONS FROM THE CANADIAN FOOD INSPECTION AGENCY

The Canadian Food Inspection Agency (CFIA) uses a risk-based approach to verify that domestically produced and imported products meet Canadian standards and regulations. CFIA compliance and enforcement actions occur all along the supply chain and they involve

numerous stakeholders and jurisdictions. Vessels arriving in the port may be subject to inspection by CFIA. More information may be found on the [CFIA website](#).

## INSPECTIONS FROM THE VANCOUVER FRASER PORT AUTHORITY

Every vessel entering the port may be subject to a visit from a harbour patrol officer.

During their visit on board, the officer may issue orders to accomplish certain tasks and may ask to see certain documents. These will generally relate to sealing of over-side discharge valves, bunker fuel in use, and overall compliance with the practices and procedures within this document.

The harbour patrol officers will, upon request, provide the master with information about the port.

## SECURITY AND SEARCH

An enforcement officer designated pursuant to section 108 of the [Canada Marine Act](#) may board any vessel and conduct inspections of the vessel to determine whether the vessel complies with any of the provisions of these practices and procedures. The enforcement officer may direct any vessel to provide them with reasonable information concerning the condition of the vessel, its equipment, the nature and quantity of its fuel and the manner and locations in which the cargo and the fuel of the vessel are stored, and any other reasonable information that they consider appropriate for the administration of these practices and procedures. The enforcement officer may take any action or issue any orders on board a vessel with respect to that vessel that they consider necessary or reasonable in the circumstance to:

- Prevent the occurrence, commission or continuation of a violation or offence under law, or any other act or regulation within the authority's responsibility or jurisdiction
- Gather evidence, information, materials or samples of any substance or material that may be required by the port authority with respect to a violation or offence under any other act or regulation within the port authority's responsibility or jurisdiction

The master of any vessel and every person on board the vessel shall give the authority all reasonable assistance to enable the enforcement officer to carry out their duties and functions under this section. No person shall obstruct or hinder the enforcement officer while they are engaged in carrying these duties and functions, or knowingly make a false or misleading statement, either orally or in writing, to the port authority.

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