



PORT METRO
vancouver

HARBOUR OPERATIONS MANUAL

Vancouver Fraser Port Authority

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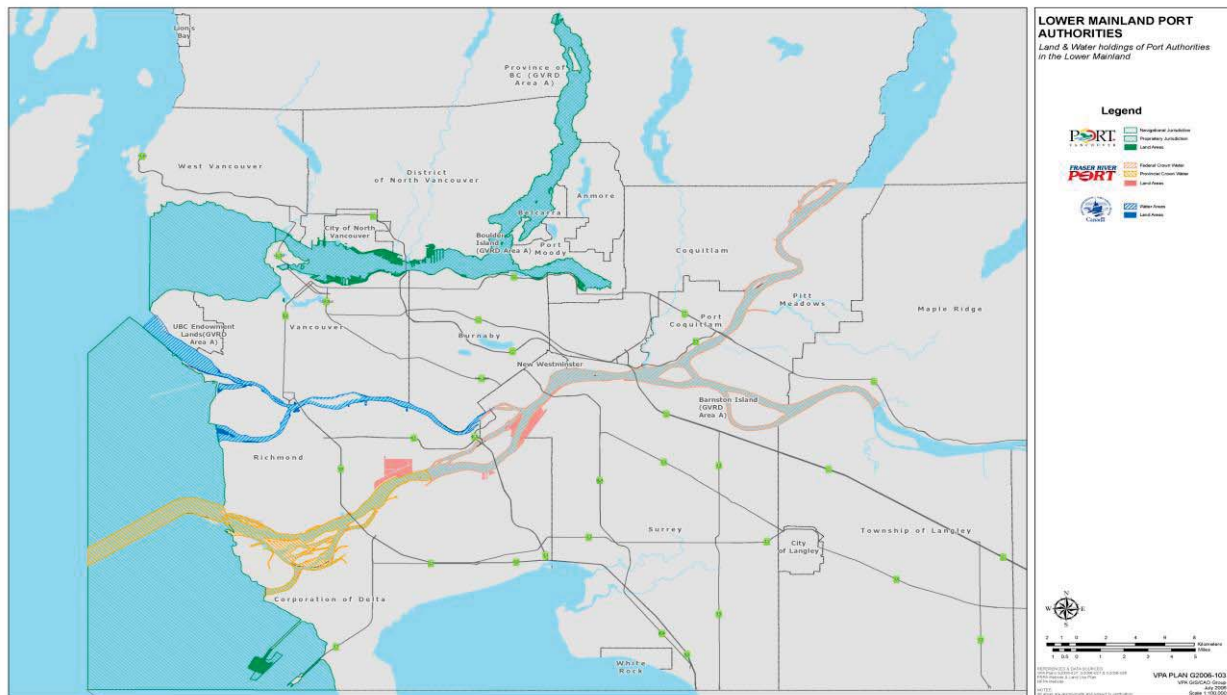
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Section 1: Introduction

Welcome to Vancouver Fraser Port Authority (the "Authority"), Canada's largest port. The Authority is committed to facilitating and expanding the movement of cargo and passengers through the port of Vancouver and the port of the Fraser River (individually or jointly the "Port") by providing facilities, services and technologies that are competitive, safe, commercially viable, dependable and customer oriented.

This document titled, Harbour Operations Manual: Practices and Procedures for the Vancouver Fraser Port Authority, was created pursuant to Section 56 of the Canada Marine Act. It contains a set of localized practices and procedures designed to promote safe and efficient navigation within the waters of the Port and support efforts to protect the marine environment. The practices and procedures contained in the Manual apply to all vessels in the Port, including small craft vessels, as well as other users of the Port, including tenants and may be amended from time to time by the Authority upon thirty days notice.

Further information pertaining to their application may be obtained by contact the Harbour Master's office at (604) 665-9086 or via E-mail at Harbour_Master@portmetrovancover.com



Section 2: General Information

2.1 General Information

- 1) The Harbour Master is the primary point of contact for the Authority. During office hours, Monday to Friday 0730 – 1700 contact 604.665.9086. At all other times contact the Duty Harbour Master at 604.666.6012.
- 2) The owner or person in charge of a ship involved in any accident or collision causing injury or death to persons or loss or destruction of or damage to property, or grounding in the Port shall forthwith inform the Authority of such accident, collision or grounding and shall, within 24 hours of such accident, collision or grounding, submit to the Authority a written report giving full details of the accident, collision or grounding including the particulars of any injury or death to persons and the loss, destruction or damage to property.
- 3) The owner or person in charge of a ship shall in case of fire, accident, dangerous situation or disturbance affecting safe and efficient navigation in the Port or environmental protection of the waters of the Port forthwith notify the Harbour Master.
- 4) No ship shall moor or anchor without approval of the Authority and then only at such places and in such a manner as directed by the Authority.
- 5) Where the owner or person in charge of a ship in the Port is not available or refuses or neglects to obey any order to move the ship, the Harbour Master's office may, at the expense of the owner of the ship:
 - a) take possession of and remove the ship;
 - b) use any means of force reasonably necessary to move the ship;
 - c) order tugs to move the ship; and
 - d) moor or anchor the ship at any place satisfactory to the Authority.
- 6) No ship, while in the Port, shall move at such a rate of speed as to interfere with safe and efficient navigation in the waters of the Port including, without limitation, interference with other ships, or to wharves, structures or works being carried on by the Authority or others and ships, when passing dredges, pile drivers, works, tugs and small craft within the limits of the Port, shall reduce speed sufficiently to prevent danger or injury by bow wave or wash to such craft or works and persons employed on or in connection with such craft or works.
- 7) No ship shall conduct or participate in a marine event, or in any other activity that is liable to interfere with safe and efficient navigation in the waters of the Port, except with the written permission of the Authority, which permission may be either general or specific as to place or time.



- 8) Persons wishing to hold a marine event in the Port shall apply for and complete an application in the form attached hereto as the Authority may amend the same from time to time.
- 9) An applicant for permission to hold a marine event in the Port shall obtain approval in writing from the Authority prior to the event and if such approval is given, shall abide by any requirements listed on the approved application and in all cases the Authority will require that the applicant obtain comprehensive general liability insurance in an amount acceptable to the Authority. The Authority is to be named as a co-insured.
- 10) Any person using a net to fish in the Port shall, upon being notified by 4 long whistle blasts from an approaching ship, haul in the net to allow passage of the approaching ship.
- 11) Prior to the transfer of any fuel or oil, a Fuel Safety Transfer Checklist shall be completed and all conditions implemented. A copy of the Fuel Safety Transfer Checklist shall be faxed to the Authority on completion of the activity
- 12) When dangerous or hazardous goods are to be loaded or unloaded or are to remain on board a vessel in the Port, they are to be handled in compliance with all applicable laws and regulations.

2.2 Interpretation

Act means the *Canada Marine Act*, as amended from time to time;

Authority means the Vancouver Fraser Port Authority established under Part 5.1 of the *Port Authorities Management Regulations* issued pursuant to the Act;

Boom section means a boom measuring 66 feet in length by 66 feet in width enclosed by boom sticks.

Bridge means any of:

- the Middle Arm Highway Bridge that spans Morey Channel from Lulu Island to Sea Island in Richmond;
- the Canadian Pacific Railway Bridge-Marpole that spans the North Arm, Fraser River, at Marpole from Vancouver to Richmond; or
- the Canadian National Railway Bridge that spans the North Arm, Fraser River, from Burnaby to Richmond in the area commonly known as the "Big Bend";

Cargo, in respect of a ship, means any goods towed by or loaded aboard a ship or aboard a ship under tow;

Clearance means an authorization from MCTS for a vessel to enter, move within or depart from the MRA subject to any conditions specified in these Orders;

Clear Narrows means the transit of a vessel through the MRA, unimpeded and not met, overtaken, or crossed ahead by any other vessel;

Contamination means any:

- waste or hazardous waste, as those terms are defined in the *Environmental Management Act* (British Columbia) and the *Hazardous Waste Regulation* (British Columbia), respectively;
- substance, as that term is defined in the *Canadian Environmental Protection Act* (Canada) including substances specified in the List of Toxic Substances in Schedule 1 thereto;
- deleterious substance as that term is defined in the *Fisheries Act* (Canada); or
- matter which is not waste, hazardous waste, a substance, or a deleterious substance, as those terms are defined in this paragraph, but which presents a risk of significant harm to the environment or to human health;

Dangerous goods means a product, substance or organism included by its nature or by the regulations in any of the classes listed in the TDG schedule

Deep sea vessel means:

- any vessel requiring a pilot;
- barges with a displacement of 6,500 tonnes and greater, whether or not self-propelled;

Duty Harbour Master is the person who acts on behalf of the Harbour Master, when the Harbour Master is unavailable.

Floating property means any shed, shanty, boathouse or other structure that is located on the waters of the Port and which is designed, used or capable of being used solely or partly for marine navigation;

Foreshore means that part of the Port between the low water mark at low tide and the upper limit of wave wash at high tide otherwise known as the high water mark;

Fuel Safety Transfer Checklist means the checklist set out in Schedule "A" to these Practices & Procedures;

Harbour Master means the person appointed by the Authority as harbour master of the Port and includes any person who is authorized by the Authority from time to time to discharge the function of the harbour master;

Hodder's Tug Boat Dock means 1,250 metres (1.25 kilometres) upstream from the bottom of Mitchell Island;

Holding areas means designated areas within the MRA, on the north and south shores each side of the Second Narrows Bridges, in which tugs and tows can hold themselves in readiness until conditions are such that a transit of the Second Narrows Bridges can be made. These designated areas are:

- North East - CanadianOxy;
- North West - Lynnterm;
- South East - Stanovan;
- South West - Cascadia

Inner (Easterly) Light means Light No. 385 as set forth in the "List of Lights, Buoys and Fog Signals Pacific Coast including Rivers and Lakes of British Columbia 1992", as published by the Canadian Coast Guard, Marine Navigation Services;

Log means any bolt, pole, pile, boom stick, swifter, rider, tree or other un-manufactured wood product;

Log salvage means securing, pursuing or searching for drift timber or for drift timber that has been secured and possession of the timber until it has been returned to its owner or it is delivered to a receiving station;

Log transit grounds means the area of the Port on the north shore of the North Arm Jetty commencing at a point 780 metres easterly of the Second Light and extending upstream to a point approximately 250 metres beyond the Inner (Easterly) Light and from the dolphins seaward in a northerly direction for the distance prescribed in Section 9.2 (a) (b) or (c) in which the Authority has installed mooring dolphins numbers 1 to 88;

Marine event includes the following:

- yacht and boat races;
- hang gliding and paracending;
- sail meets and swim races;
- sails - past;

- media productions; and
- aquatic sports;

MCTS means the Vancouver Marine Communications and Traffic Services Centre at the Port of Vancouver, B.C.

Middle Arm (Morey Channel) means the area in the Port from the northeast corner of Sea Island to the upper reach of Duck Island to Terra Nova;

Mitchell Slough means the water area between the south shore of Vancouver and the north shore of Mitchell Island;

MRA means the Second Narrows Movement Restriction Area and comprises that area enclosed within lines drawn 000 degrees True north from the fixed light on the north-eastern end of Terminal Dock to the North Vancouver Shoreline at Neptune Terminals and a line drawn 000 degrees True north from Berry Point Light (approximately 1.5 miles east of the CN Bridge on the South Shore of Vancouver Harbour) to the North Shore on the opposite side of the channel;

North Arm Breakwater means the rock wall on the north side of the entrance to the North Arm of the Fraser River;

North Arm Jetty means the area in the Port from the Inner Light to the White Light to the point of Point Grey;

Outer (Westerly) Light means Light No. 381 as set forth in the "List of Lights, Buoys and Fog Signals Pacific Coast including Rivers and Lakes of British Columbia 1992", as published by the Canadian Coast Guard, Marine Navigation Services;

Point Grey Log Storage Grounds means the area of the Port that is made up of the entire Point Grey Flats which includes log storage lease Areas #1 through #4 and the access channels immediately east and west of each said log storage area.

Port means the navigable waters described in Schedule "A" and includes the Federal Real Property described in Schedule "B", and the real property other than Federal Real Property described in Schedule "C" of the Authority's "Letters Patent";

Richmond Island means the island located on the north side one (1) mile below the CP Rail Bridge;

Scow mooring grounds means:



- the area of the Port that fronts the north bank of the North Arm of the Fraser River, is upstream of the North Arm Breakwater and in which the Authority has installed mooring berths numbers 1 to 7; and
- the area of the Port that fronts the north shore of Sea Island and is upstream of “Woods Island” in which the Authority has installed mooring berths numbers 1 to 4;

Sea Island (Sheeting) means the wooden and sheet piling walls located across from Richmond Island;

Second Light means Light No. 383 as set forth in the “List of Lights, Buoys and Fog Signals Pacific Coast including Rivers and Lakes of British Columbia 1992”, as published by the Canadian Coast Guard, Marine Navigation Services (discontinued);

Second Narrows Bridges means the Canadian National Railways (“CN”) Bridge and the Second Narrows Vehicular Bridge;

Ship has the meaning ascribed to such word in Section 2(1) of the Act;

Small craft means any vessel that is not a deep sea vessel;

Tonne means a metric tonne of 1000 kilograms (2205 lbs.);

Transit speed means the speed of the vessel through the water within the MRA;

Vessel means a vessel as defined in the COLREG; and

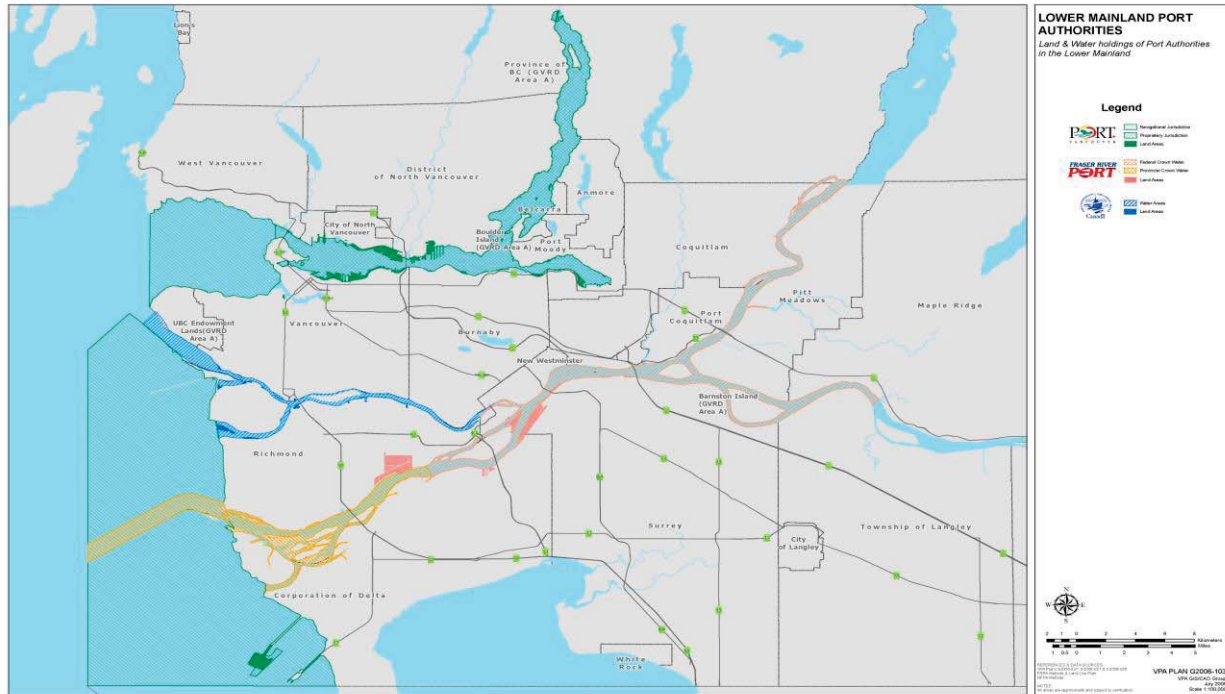
White Light means the light marking the entrance to the North Arm of the Fraser River.

2.3 Marine Traffic Contacts

2.3.1 Marine Communications and Traffic Services (MCTS)

Marine Communications and Traffic Services (MCTS) can communicate with, and monitor the movement of vessels in the Port.

All vessels transiting the Port with VHF radio capability, and not just those required to by the Marine Communications and Vessel Traffic Services Zone Regulations, should monitor the VHF channel used for MCTS communications in the respective area.



In the Vancouver harbour restrictions MCTS uses VHF channel 12 for communications.

In the southern Vancouver harbour limits (Iona to the international boundary not including the Fraser River) MCTS uses VHF channel 11 for communications.

In the Fraser River restrictions MCTS uses VHF channel 74 for communications.

Be aware that log loading operations at Timberland Basin must be on stand-by and monitor VHF channel 08.

Periodic notices of actions required of vessels in Port waters will be distributed by MCTS as Notices to Shipping or on the continuous marine broadcast.

2.4 Harbour Masters Office

2.4.1 Office Hours

The Harbour Masters Office is open Monday to Friday from 0730 to 1700. The office can be contacted by calling (604) 665-9086 or by email at harbour_master@portvancouver.com.

2.4.2 After Hours

After hours, 1700 to 0730 and on weekends the 'duty harbour master' is available by contact MCTS at 604.666.6012

2.4.3 Harbour Patrol

Harbour Patrol vessels are in operation 24 hours a day. Staff on board these vessels represents the Harbour Masters Office. Patrol vessels may be contacted by calling MCTS or by radio directly.



Section 3: Navigation and Waterway

3.1 First Narrows

3.1.1 Definition

First Narrows is defined as those waters in Vancouver harbour bounded to the east by a line drawn from Brockton Point to Burnaby Shoal, then 000 degrees True north; bounded to the west by a line drawn from Navy Jack Point to Ferguson Point.

3.1.2 Passing and Overtaking

Deep sea and large coastal vessels are not permitted to meet or overtake each other between Calamity Shoal Buoy and Capilano Light Beacon (First Narrows Light).

Deep sea and large coastal vessels are not permitted to overtake other vessels transporting dangerous goods between Brockton Point and Capilano Light Beacon.

3.1.3 Towing, Tugs and Tows

- 1) The maximum allowable dimensions of log rafts are as follows:
 - forty sections total content
 - twenty sections overall length
 - two sections overall width.
- 2) Log rafts over 10 sections in length require an assist tug. Unless cleared by the MCTS Centre, eastbound tugs with tows bound for Seaspan and the Navy Buoy area shall cross the channel east of Burnaby Shoal.
- 3) The maximum length of tow line to be used between Capilano light and the Second Narrow MRA is 55M (180 ft.)

3.1.4 Maneuvering within First Narrows

The following applies to vessels maneuvering in First Narrows:

- 1) All vessels are to keep to starboard of mid channel unless otherwise authorized by the MCTS Centre.



- 2) Vessels entering First Narrows are to be in receipt of a Traffic Advisory issued by the MCTS Centre not later than Burnaby shoal westbound or Dundarave eastbound

3.1.5 Restrictions– Fishing, Sailing, Personal Watercraft and Deep Draft Vessels

Fishing is prohibited between Capilano Light Beacon and Brockton Point.

Sailing or proceeding without mechanical power (rowing and paddling) is prohibited in First Narrows. One sail sheeted home is allowed for stability purposes when under power in the Narrows – otherwise sails are to be lowered.

The use of personal watercraft in First Narrows is prohibited.

All vessels with a draft greater than 15 metres require a “Clear Narrows” authorization as set out in 3.1.6.

3.1.6 Clearing Narrows

The term “Clear Narrows” is defined as the transit of a vessel through either First or Second Narrows, unimpeded and not met, overtaken or crossed ahead of by any other vessel.

The MCTS Centre will issue a “Clear Narrows” clearance upon request by the master of a vessel that requires a clear passage through either First or Second Narrows, provided that traffic conditions allow.

The MCTS Centre will issue a “Clear Narrows” clearance on VHF Channel 16 followed by a broadcast on VHF Channel 12.

Light tugs and other highly maneuverable small vessels may be granted a compliance exemption from the MCTS Centre.

3.2 Second Narrows Movement Restriction Area Procedures

3.2.1 Introduction

The Second Narrows forms a natural bottleneck of water in Burrard Inlet, between the main port area of Vancouver harbour to the west and the Central Portion of Vancouver harbour to the east. The Vancouver Fraser Port Authority (VFPA) has established the Second Narrows Movement Restriction Area (MRA) and has developed the Second Narrows MRA Procedures,

hereinafter the “MRA Procedures”, in consultation with pilots and marine industry. The purpose of the MRA Procedures is to facilitate the safe navigation and efficient operation of vessels in this area of Vancouver Harbour and they are part of the VFPA’s Harbour Practices and Procedures.

3.2.2 Definitions

Barge means a vessel designed with no means of self-propulsion.

Bollard Pull means the sustained useful pulling capability of the towing vessel.

Clear Narrows means the unimpeded transit of a vessel through the MRA, including not met, overtaken, or crossed ahead by any other vessel.

Clearance means an authorization from MCTS for a vessel to enter, move within or depart from the MRA subject to any conditions specified in the MRA Procedures.

Dangerous Goods means polluting and dangerous cargoes in liquid bulk, explosives and highly toxic cargoes, as identified by applicable Canadian and International standards.

Daytime means the hours between dawn and dusk as defined by the morning and evening civil twilight, respectively.

Harbour Master’s Office means the VFPA department that governs port practices and procedures and has responsibilities related to the safety of navigation and marine operations in the port jurisdiction.

Holding Area means a designated area in which vessels can hold themselves in readiness until conditions are such that a transit of the Second Narrows Bridges can be made.

Master means person in charge of a ship.

MRA means the Second Narrows Movement Restriction Area and comprises the area enclosed within lines drawn 000o from the fixed light on the north-eastern end of Terminal Dock to the North Vancouver Shoreline at Neptune Terminals and a line drawn 000o from Berry Point Light (approximately 1.5 miles east of the CN Bridge on the South Shore of Vancouver Harbour) to the North Shore on the opposite side of the channel

MRA Vessel means a vessel restricted by these regulations during its transit of the Second Narrows Bridges.

Non MRA Vessel means a vessel that at the time of its transit through the Second Narrows Bridges is not restricted by these regulations.

Piloted Vessel means a vessel that is under the conduct of a pilot in accordance with the Pacific Pilotage Regulations.

Recreational Vessel means a non-MRA vessel that has the primary role of recreation (i.e. not intended for commercial use or hire).

Second Narrows Bridges means the Canadian National Railways Bridge (CN Bridge) and the Ironworkers Memorial Second Narrows Bridge (Ironworkers Bridge).

Slack Water means tidal currents generally not greater than ½ knot.

Tractor tug means a tug capable of creating forces in multiple directions (generally equipped with cycloid or 360° azimuth drive propulsion)



Under Keel Clearance (UKC) means the depth of water between a vessel's keel and the waterway bottom.

Vancouver MCTS means the Canadian Coast Guard's Marine Communications and Traffic Services Centre in Vancouver.

3.2.3 Application

- 1) The MRA Procedures apply to all marine traffic in the MRA, except vessels that are engaged in law enforcement, security, or search and rescue.
- 2) Non-MRA vessels shall transit or move within the MRA only when safe to do so and must take into account all factors influencing safe of navigation including tidal current, weather conditions and their knowledge of the MRA.
- 3) The MRA Procedures do not relieve the Master from compliance with the Canada Shipping Act Collision Regulations or other regulations, requirements or standards in respect of vessels operating in Canadian ports.
- 4) Further, these Procedures do not lessen in any way, the responsibility of the Master for the safe navigation, prudent maneuvering of the vessel and preparation for unforeseen circumstances affecting the normal operation of the CN Bridge.
- 5) These MRA procedures may be further operationalised with Standard Operating Procedures developed by the pilotage company in conjunction with the Pacific Pilotage Authority.
- 6) These procedures may be varied by the Harbour Master in the event of an emergency, which causes (or is likely to cause) loss of life, personal injury, serious environmental pollution or contributes to unsafe navigation in the harbour.

3.2.4 Second Narrows Bridges Vertical and Navigation Clearances

Vertical clearances are given as distances measured from the Higher High Water, Large Tide datum to the lowest member of the bridge structure, in way of navigation channel.

- 1) The limiting height factor for a complete transit of the Second Narrows Bridges is 44 metres which is the vertical clearance at the central fixed span of the Ironworkers Bridge.
- 2) The vertical span clearances of the CN Bridge are:
 - a) Main lift span fully raised (open position) 46 metres
 - b) Main lift span at lowest level (closed position) 10.8 metres, and
 - c) First fixed span immediately south of the south tower, 10.8 metres.
- 3) The central portion of the Ironworkers Bridge shipping channel where the maximum vertical clearance is available is 110 metres wide.
- 4) The vertical lift section of the Second Narrows Railway Bridge provides 137 meters clear navigation width between rubbing fenders.



3.3 Transit Restrictions

3.3.1 Operational Periods

- 1) Operational Periods are established on either side of high and low water slack tides and are based on slack water or stemming 1 and 2 knot limiting current.
- 2) When available, real time tide and current information should be used in conjunction with predicted Operational Periods to improve the safety and efficiency of operations in the MRA.

3.3.2 Vessel Restrictions

- 1) The following vessels are subject to observing the Operational Periods during their transit of the Second Narrows Bridges:
 - a) Vessels carrying over 6,000 tonnes of cargo and,
 - b) All piloted vessels, regardless of tonnage
- 2) Tug and barge combinations specifically designed for pushing and tractor tugs towing alongside, may transit with a barge carrying 6,000 to 10,000 tonnes of cargo, regardless of current direction, when not employing a pilot.
- 3) Vessels with Length Overall plus Breadth (LOA + B) greater than 265 meters require two pilots and are subject to daylight passage of the MRA.
- 4) Tanker vessels greater than 185 meters are restricted to daylight transit through the MRA when in product.
- 5) Vessels with LOA+B greater than 295 meters are restricted from transiting 2nd Narrows without prior approval of the Harbour master.
- 6) Tankers loaded to 12.5 m or greater shall be trimmed 15 cm by the stern.
- 7) Vessels found by the pilots to have unacceptable maneuvering characteristics may be refused permission to transit or subjected to special restrictions.

3.3.3. Navigation Channel Clearances

- 1) The following guidelines apply to the transit of vessels through the Second Narrows:
 - a) The minimum channel width required for transiting the MRA is 2.85 times the vessel beam.
 - b) A minimum 10% UKC clearance calculated using the static draught, i.e. the draught of the vessel when it is not moving through the water, is required.
 - c) The pilot in conjunction with the master should evaluate these conditions prior to the transit.
- 2) Vessels with an air draught in excess of 42 metres must report the maximum air draught of the ship or floating equipment at least 24 hours in advance to the Harbour Masters Office. The Harbour Master may approve the transit based on calculation of the air draught clearance or require verification of the air draught by a competent surveyor prior to transit.



3.3.4 Transit Speed

- 1) MRA vessels shall transit within the MRA at a speed through water no greater than 6 knots, except when safety of navigation requires otherwise.
- 2) All other vessels within the MRA shall proceed at a safe speed that will allow them to properly react according to the prevailing circumstances and condition.

3.3.5 Clear Narrows

- 1) A Clear Narrows order is required for:
 - a) MRA tanker vessels carrying dangerous goods or pollutant cargoes in bulk.
 - b) Other vessels with special transit requirements that require the approval of the Harbour Master.
- 2) Light tugs are permitted to transit through the Second Narrows bridges during a Clear Narrows condition providing a ship to ship agreement has been reached with the vessel(s) for which a clear Narrows has been announced.
- 3) All other vessels shall observe the Clear Narrows order and not interfere in any way with the passage of a vessel for which a Clear Narrows has been issued. MCTS may direct such vessels to a suitable Holding Area until conditions are such that a transit of the Second Narrows Bridges can be made.

3.3.6 Order of Transit

The following order of priority applies to vessels transiting the MRA:

- 1) MRA vessels have priority over Non-MRA vessels when transiting the MRA
- 2) Vessels carrying dangerous goods have priority over other vessels within their respective group when transiting the MRA

3.3.7 Wind Restrictions

There are no standing wind restrictions for the MRA. However, when wind warnings are in effect, the Master and/or Pilot shall take into consideration such factors as light vessel draught and/or high freeboard, when planning to transit the MRA.

3.3.8 Visibility

Reduced visibility limits the ability to see aids to navigation and other vessels or landmarks. These procedures outline safety requirements to be followed when transiting under the Second Narrows Bridges during periods of reduced visibility.

- 1) Piloted vessels or vessels carrying over 6,000 tonnes of cargo, intending to transit under the Second Narrows Bridges are restricted to a clear range of visibility, through the entire portion of the passage that falls within the MRA, as observed from the CN Bridge.
- 2) Pusher tug-barge combinations or tractor tugs towing alongside carrying between 6,000 tonnes and 10,000 and vessels carrying up to 6,000 tonnes of dangerous



goods, may transit during conditions of restricted visibility subject to the following conditions:

- a) An additional tug to assist with the transit is employed
 - b) Each tug's shipboard navigation equipment include
 - i) An operational Electronic Chart Display and Information System (ECDIS), as approved by IMO or meeting local industry guidelines,
 - ii) One operational radar
 - c) The transit is restricted to a reduced MRA Operational Period limited to 1 Knot current.
 - d) The vessel operator has provided the Harbour Master's Office in advance with documentation which demonstrates to satisfaction of the Harbour Master adequate internal safety systems that have been put in place for a safe transit of the MRA and the degree of local knowledge of the MRA.
- 3) Nothing in this section shall be construed to require the Master of a vessel to commence a transit in reduced visibility.

3.4 Communications

3.4.1 Harbour Master

The Harbour Master has overall authority in interpreting and overseeing the implementation of these procedures. In doing so, the Harbour Master consults with other partners in safety including pilots, other statutory agencies and industry experts, as required.

3.4.2 MCTS

- 1) Communication with vessels transiting or intending to transit the Second Narrow MRA is provided, on behalf of the Harbour Master's Office, by the Vancouver MCTS.
- 2) MCTS provides clearance to enter, move within or depart from the MRA subject to conditions specified in these MRA Procedures. When a "clearance" is given to a vessel to transit the Second Narrows MRA, MCTS shall provide information of any other known traffic intending to transit within 20 minutes of the transit time for which the clearance is given.
- 3) MCTS shall also, at this time, advise of any specific orders regarding the transit which may be issued by the Harbour Master's Office.
- 4) Where certain vessels are required to wait pending the transit of another vessel, they shall be so advised prior to leaving berth, weighing anchor, or entering the MRA.
- 5) Vessels requiring tugs shall indicate to MCTS that such tugs will be in place prior to proceeding into or moving within the MRA.

3.4.3 CN Bridge

The CN Bridge operations, on receipt of an MRA vessel's ETA, shall endeavour to make the CN Bridge available with the lift span elevated 30 minutes prior to the ETA.



- 1) All vessels requiring the CN Bridge lift span be raised shall establish communication on VHF Channel 12 with the CN Bridge Operator, immediately prior to approaching the Second Narrows Bridges, indicating their intention to request for the lift span to be raised.
- 2) The communication of the MRA Vessels shall include:
 - a) A statement of intentions, prior to departing from a Vancouver Harbour location or upon entering English Bay, when underway
 - b) ETA at the CN Bridge; and
 - c) Confirmation of such ETA on reaching the MRA.
- 3) In the absence of clear verbal communication between vessel and bridge operator, the vessel shall sound three (3) prolonged blasts, repeating this signal until acknowledgement has been received from the bridge operator.
- 4) All vessels shall remain at a safe distance from the CN Bridge until the lift span is in a fully raised position.
- 5) The CN Bridge operations, when the vessel's request has been received, shall:
 - a) Verbally confirm their understanding on VHF Channel 12;
 - b) Display one (1) flashing red light on that side of the lift span facing the approaching vessel which indicates that the lift span is in the process of being raised to the fully raised position, or to the requested height; and
 - c) Display one (1) flashing green light on that side of the lift span facing the approaching vessel which indicates that the lift span has been raised to the fully raised position, or to the requested height.
 - d) Display a sector light for westbound MRA vessels that require the lift span in the fully raised position.
- 6) No vessel shall approach the CN Bridge when the following signals are displayed:
 - a) Two (2) flashing red lights on that side of the lift span facing the approaching vessel which indicates that the vessel is to stop at once or, if necessary, go astern; or
 - b) A vertical row of four (4) fixed white lights on the centre of the main lift span which indicates that another vessel is approaching from the opposite direction.

3.5 Vessel Traffic within the MRA

- 1) A non-MRA vessel may overtake another non-MRA vessel that is proceeding at a speed of less than 6 knots in the MRA, provided the vessels concerned:
 - a) The passage does not occur within two cables of either side of the Second Narrows Bridges
 - b) Have satisfactorily exchanged communication and signals between them
- 2) Under no circumstances shall a vessel attempt to overtake, or otherwise obstruct a vessel that has approached the CN Bridge and has signalled or requested for the lift span to be raised.



- 3) An MRA vessel shall not commence its transit until an MRA vessel transiting in the opposite direction has completed its transit.
- 4) MRA vessels transiting in the same direction shall maintain a safe separation distance between them.
- 5) MRA vessels proceeding to or departing from berths within the MRA shall give way to and not interfere with the movement of MRA vessels transiting the MRA.
- 6) Non-MRA vessels shall plan their movements to give MRA vessels transiting or moving within the MRA as unobstructed a passage as is practicable and consistent with good seamanship.
- 7) All vessels, including sailing vessel, transiting the MRA shall be under adequate mechanical power.
- 8) A vessel having a defect in the hull, main propulsion machinery, steering system, or other communication or navigation system, that is detrimental to safe navigation, require prior approval of the Harbour Master's Office to transit the MRA.
- 9) Personal watercraft or jet skis are not permitted to move within or travel through the MRA due to risks associated with commercial marine traffic and the narrow channels.

3.6 MRA Vessels Tug Requirements

3.6.1 General Requirements

- 1) All tugs employed at the stern of a vessel transiting the Second Narrows MRA must be tethered tractor tugs.
- 2) Escort tugs shall be in attendance prior to entering the MRA until clear of the Second Narrows Bridges by 3 cables unless otherwise specified in these rules.
- 3) Tugs capable of generating more than 40 tonnes of bollard pull force shall have an operational tension meter that the tug operator can easily read from the conning position.
- 4) Loaded (in product) tankers vessels greater than 40,000 DWT intending to transit the Second Narrows MRA require a minimum of two tugs through the First Narrows when inward or outward bound.

3.6.2 Vessels - Tug Matrix

- 1) MRA vessels transiting through the Second Narrows MRA, must comply with the standards for tug requirements outlined in **Table 1: MRA Vessels Tug Matching Matrix**, which summarizes the bollard pull requirements and the configuration of the tug package for such vessels.
- 2) Transit of vessel with a $LOA + B > 265$ and draught greater than 13.5 meters, is subject to tug requirements and other aids to navigation system enhancement presently not in place at the MRA.



- 3) Vessels with additional levels of redundancy in their propulsion and control systems, which provide such vessel with extra manoeuvrability and safety features, may be allowed to reduce the number of tugs required in accordance with Table 1: MRA Vessels Tug Matching Matrix or **Barges– Tug Requirements** as applicable.

Vessel Dimensions (meters)		Number of Tugs		Bollard Pull (tonnes)		
Draught	LOA / LOA+B	Bow	Stern	Bow	Stern	Total
> 12	LOA > 200 m	1	2	30	110	140
> 10 <12	LOA > 200 m	1	1 or 2	30	80	110
<10	(LOA+B) > 265 m	1	1 or 2	30	65	95
> 8 <10	LOA > 200m; (LOA+B) < 265m	1	1 or 2	30	65	95
< 8	LOA > 200m; (LOA+B) < 265m	1	1 or 2	30	50	80
> 10	LOA < 200 m	1	1 or 2	30	50	80
> 8 <10	LOA < 200 m	1	1 or 2	30	40	70
< 8	LOA < 200 m	1	1	20	30	50

Table 1: MRA Vessels Tug Matching Matrix

3.7 Towing and Barge Traffic

3.7.1 General

- 1) A vessels towing another vessel through the MRA, shall limit the length of her towline, measured from the stern of the towing vessel to the nearest portion of the vessel being towed, to not more than 60 metres. Such towline may not be lengthened until both vessels are completely clear of the bridge piers.

3.7.2 Tug Requirement for Barges

- 1) Barges moving within the Second Narrows MRA, must comply with the standards for tug requirements outlined in Table 2: Barges– Tug Requirements, which summarises the bollard pull requirements and the number of required tugs to transit through the MRA.
- 2) A towed vessel carrying dangerous goods requires an assist tug of adequate power in addition to the tug requirements set in Table 2: Barges– Tug Requirements.

Capacity (Metric Tonnes)	Number of Assist Tugs	Total BP (tonnes)
<6,000	-	-
>6,000 – <10.000	1	20
10,000 or greater	2	40

Table 2: Barges– Tug Requirements

3.7.3 Log Towing

- 1) The overall width of log booms within the MRA shall not exceed two sections wide.
- 2) When transiting the MRA with more than 10 sections overall length, the Master or Person-in-Charge of a log boom shall engage, in addition to tugs required in the towing operation, one or more tugs of adequate power, to:
 - a) Remain close inshore off the main channel, and
 - b) Be able to maintain such boom in the designated holding areas located on both sides of the Second Narrows Bridges as shown on chart # 4964.

3.8 Bridge Transits – Fraser River

3.8.1 General Practices

- 1) Due regard is to be given to all dangers of navigation and potential collision and to any special circumstances, including the limitations of the vessels involved, that may make a departure from the following practices necessary to avoid immediate danger.
- 2) Detailed bridge specifications are provided within the Authority’s Technical Specifications Handbook. The Handbook can be obtained by contacting the Authority or downloaded from the website..
- 3) Early and clear communications between the vessel and Bridge Operator must be established. The Master and Bridge Operator must establish a point beyond which the vessel will not proceed if prior confirmation that the bridge will open has not been received. The Master must also have a predetermined point at which action must be taken if the bridge is not open.
- 4) Communication can be established on either VHF channel 74 or by phone (see specific bridge sections for contact information).
- 5) Once radiotelephone contact has been established with the Bridge Operator, a listening watch is to be maintained on VHF channel 74 until the vessel has cleared the bridge.
- 6) When visibility is less than 300 metres, a vessel towing loaded or empty barges is to transit the swing span only when stemming the current.



- 7) Where a vessel is towing logs in excess of 20 sections (400 metres), it is to have an assist tug.
- 8) Where unusual conditions, loads, or circumstances exist, the towing company or the Master of the vessel is to advise the Harbour Master's office, prior to the transit, of the compensatory measures to be taken during the transit.
- 9) The Master of a vessel that has in tow any floating property such as, but not limited to, a boom, barge or vessel, is not to overtake or attempt to overtake any part of a tow of another vessel within 500 metres of a swing span. The master of a vessel towing booms or floating property in the Port is to ensure that a distance of 500 metres is maintained between the vessel and the stern of any proceeding tow.
- 10) A vessel towing two (2) or more scows or barges shall not pass through the draw of a swing span bridge unless the scows or barges are close-coupled in such a manner as to prevent the scows or barges from sheering.
- 11) Vessels are to fit moveable masts (whenever practical) and to transit in a mast-down configuration whenever possible to ensure that openings of bridge swing spans are minimized.

3.8.2 Queensborough Railway Bridge

CONTACTS: VHF channel 74 and 06; Bridge Operator Telephone: 604-522-3729

- 1) Every vessel transiting the Queensborough Railway Bridge is to make a safety call on VHF channel 74 and 06 to determine if there is opposing traffic.
- 2) The Bridge is typically left in the open position and attended by a Bridge Operator. The Bridge is unattended at the following times:
 - a) Monday to Friday, 08:00 – 16:00
 - b) Saturday 08:00 – Sunday 08:00
- 3) If work is underway, a Bridge Operator will be present regardless of the schedule and make a safety broadcast.
- 4) The Master must attempt to establish contact with the Bridge Operator well in advance of the need for opening. An opening procedure will be established, taking into account weather and river conditions as well as procedures specified by the Bridge Operator.
- 5) Under most conditions, both the upriver and downriver vessels are to transit the draw on the Queensborough side of the bridge.
- 6) A vessel towing a loaded barge with a carrying capacity of 4,500 short tons or more, or an empty barge with a carrying capacity of 5,500 short tons or more, is to stem



the current or use an assist tug while transiting the span. If over 7,000 short tons, shall use an assistant tug.

- 7) A vessel towing loaded barges in tandem is to have the barges close-coupled and, where the length of the tow is in excess of 122 metres, is to use an assist tug.
- 8) A vessel towing a barge that has a beam or a load in excess of 18 metres in width is to use one (1) assist tug, and two (2) assist tugs if over 22 metres. In both cases, the vessel is to stem the current while transiting the swing span.

3.8.3 New Westminster Railway Bridge

CONTACTS: VHF channel 74; Bridge Operator Telephone: 604-589-6612

- 1) The north protection pier has a collar around it 3.66 metres (12 feet) below the surface of the water (at 3.42-metre/11.2-foot tide) that projects out 1.53 metres (5 feet). Vessel Masters should assume the south pier of the south draw has the same collar.
- 2) The Master is to establish contact with the Bridge Operator well in advance of the need for opening. An opening procedure will be established, taking into account weather and river conditions as well as procedures specified by the Bridge Operator.
- 3) VHF channel 74 is to be used to contact the Bridge Operator and the vessel master.
- 4) When calling in, the vessel is to provide the Bridge Operator with an estimated time of arrival (ETA). If the ETA changes, the vessel is to notify the Operator of the change.
- 5) In most conditions, upriver traffic is to transit the draw on the New Westminster side of the bridge. Downriver traffic is to transit the draw on the Surrey side of the bridge.
- 6) Where, for safety reasons, vessels are transiting the bridge counter to the procedure described above, the vessel is to make at least two security broadcasts on VHF channel 74, advising other marine users of their intentions.
- 7) A vessel towing a loaded barge with a carrying capacity of 5,000 short tons or more, or an empty barge with a carrying capacity of 6,000 short tons or more, is to stem the current or use an assist tug while transiting the span. If over 7,000 short tons, shall use an assistant tug.
- 8) A vessel towing loaded barges in tandem is to have the barges close-coupled and, where the length of the tow is in excess of 122 metres, is to use an assist tug when transiting on a fair current.
- 9) A vessel towing a barge that has a beam or a load in excess of 18 metres in width is to use one (1) assist tug, and two (2) assist tugs if over 22 metres.



3.8.4 Pitt River Railway Bridge

CONTACTS: VHF channel 74; Bridge Operator Telephone: 604-941-0079

24-hour Emergency Line Telephone: 1-800-795-7851

- 1) The Master is to establish contact with the Bridge Operator well in advance of the need for opening. An opening procedure will be established, taking into account weather and river conditions as well as procedures specified by the Bridge Operator.
- 2) Marine traffic closures take place Monday to Friday (except statutory holidays) at the following times:
 - a) 05:30 – 08:00
 - b) 16:15 – 19:30
- 3) The bridge will be in the closed position by 05:30 and 16:15 each day. However, the bridge may open for a tug on request, immediately after the passing of a commuter train, under the following conditions only:
 - a) Tug is ready to go;
 - b) No commuter train is waiting to pass over the bridge; and
 - c) Bridge closure can be done in time for the next commuter train.
- 4) Once an opening procedure is established, the Bridge Operator contacts the Port Coquitlam Yard Supervisor and/or Rail Traffic Controller (may take up to 20 minutes), and then prepares the bridge to swing (may take up to 10 minutes).
- 5) Approximately 3-4 minutes are required to complete a swing once the bridge starts to open.
- 6) Air draught gauges have been placed on the nose of the bridge pier to assist mariners. These gauges indicate the distance from the bottom of the bridge to the waterline and are intended only to provide estimated clearances. Actual clearances will assist a vessel operator in judging if their vessel can clear the bridge without the need for a bridge opening.
- 7) Emergency openings of the span are possible any time. An emergency situation is defined as one that threatens life, property, and/or the environment. The procedure to follow in an emergency situation is as follows:
 - a) Mariners are to contact the Bridge Operator on VHF channel 74 or by phone (604-941-0079).
 - b) Identify the emergency.
 - c) Bridge Operator will proceed to stop rail traffic and open the bridge for emergency passage.
- 8) If a mechanical failure of the bridge is immediately apparent during the opening sequence, a low level alarm sounds. In the event of an extended failure, MCTS will be contacted.



- 9) Extreme weather conditions (extreme fog, cold or heat, high winds, snow and ice) may affect operations.
- 10) If the vessel requires a cancellation of the swing, the Bridge Operator is to be contacted by telephone (604-941-0079) or VHF channel 74 as soon as possible.

3.8.5 Pitt River Highway Bridge

CONTACTS: VHF channel 74; Bridge Operator Telephone: 604-552-5830

- 1) The Master is to establish contact with the Bridge Operator well in advance of the need for opening. An opening procedure will be established, taking into account weather and river conditions as well as procedures specified by the Bridge Operator.
- 2) Marine traffic closures take place Monday to Friday (except statutory holidays) at the following times:
 - a) 05:00 – 09:00
 - b) 14:30 – 18:45
- 3) Time is needed for the Bridge Operator to contact the ambulance dispatch and Massey Tunnel (informs Ministry of Transportation) and to clear vehicular traffic.
- 4) Approximately 7-10 minutes are required to complete a swing once the bridge starts to open.
- 5) A mechanical failure of the bridge is immediately apparent, as alarms will sound. If a failure occurs, the vessel will be immediately notified.
- 6) High winds may affect operations.
- 7) If the Bridge Operator has to cancel a swing, the vessel will be notified, followed by notification of MCTS if closure is required.

3.8.6 Westham Island/ Canoe Pass Bridge

CONTACTS: VHF channel 74; Bridge Operator Telephone: 604-946-0139

- 1) The Master is to establish contact with the Bridge Operator well in advance of the need for opening. An opening procedure will be established, taking into account weather and river conditions as well as procedures specified by the Bridge Operator.
- 2) Between December 01 and March 31, the bridge is unmanned at night (between 22:00 and 06:00), if the master is unable to make contact with the Bridge Operator



during this time; the Master is to contact the Annacis Swing Bridge Operator to assist with an opening procedure (604-521-0964).

- 3) Approximately three (3) minutes are required to complete a swing once the bridge starts to open.
- 4) A mechanical failure of the bridge is immediately apparent during the opening sequence, as indicator lights alert the Bridge Operator. In the event of a failure, the vessel will be contacted and MCTS will be alerted if the problem persists.
- 5) The Bridge Operator will not operate the bridge, at their discretion, if unsafe to do so.

3.8.7 Annacis Swing Bridge

CONTACTS: VHF channel 74; Bridge Operator Telephone: 604-521-0964

- 1) The Master is to establish contact with the Bridge Operator well in advance of the need for opening. An opening procedure will be established, taking into account weather and river conditions as well as procedures specified by the Bridge Operator.
- 2) Time is needed for the Bridge Operator to contact the Southern Railway (may take five (5) minutes) and to prepare the bridge for swinging (takes three (3) minutes).
- 3) Approximately six (6) minutes are required to complete a swing once the bridge starts to open.
- 4) Masters are to transit the bridge through the North opening.
- 5) A mechanical failure of the bridge is immediately apparent during the opening or closing sequence, but there are no alarms. In the event of a failure, the vessel, Main road, and MCTS, if necessary, will be contacted.
- 6) Heavy winds exceeding 40 kilometres per hour (25 mph) may affect operations.
- 7) Thirty minutes (30) is required between openings to allow for cooling of equipment.

3.8.8 Canadian Pacific Railway Bridge - Marpole

- 1) Vessels or ships proceeding upstream shall pass through the north channel (north draw on the Vancouver side) of the navigation channel.
- 2) Vessels or ships proceeding downstream shall pass through the south channel (south draw on the Richmond side) of the navigation channel.
- 3) Every vessel or ship transiting the navigation channels in the vicinity of the Canadian Pacific Railway Bridge – Marpole shall maintain a listening watch on VHF channel 06.
- 4) Every vessel or ship transiting the navigation channels in the vicinity of the Canadian Pacific Railway Bridge – Marpole shall make two (2) security calls on VHF channel 06 to determine if there are any opposing traffic. The call in points for such safety calls are:



- a) 1,250 metres upstream from the bottom of Mitchell Island (locally known as Hodder's Tug Boat Dock); and
 - b) The downriver end of Richmond Island.
- 5) Prior to departure from any berth or vessel tie-up at the call in points or from Mitchell Slough or Morey Channel (the Middle Arm), the vessel or ship shall make at least two (2) security calls on VHF channel 06 advising other vessels or ships in the vicinity of its intentions.
 - 6) Where for safety reasons, a vessel or ship is transiting the Canadian Pacific Railway Bridge – Marpole counter to the above procedures, the vessel or ship shall make at least two (2) security broadcasts on VHF channel 06, advising other marine users of its intentions.
 - 7) Notwithstanding the foregoing and subject to the Collision Regulations, alternative arrangements may be made through bridge-to-bridge communications between passing vessels or ships.

3.9 Dredging

3.9.1 Dredging and Construction

Construction and dredging operations are prohibited within the Port and in waterfront and upland areas managed by the Authority, unless prior written approval has been obtained from the Authority.

Applications for construction and dredging operations must be submitted to the Authority and approval received from the Authority prior to commencement of such operations. Application forms may be obtained by contacting the Authority or may be downloaded through the website.

Tenants are to apply for written authorization to carry out any maintenance dredging prior to commencement of the activity.

The forms, Coordinated Project Review – Lease Application and Coordinated Project Review – Dredging Application can be obtained by contacting the Authority.



3.9.2 Mooring of Floating Property

The owner or person in charge of a floating property, including but not limited to a vessel, float home, barge, or log boom, shall ensure that the property is moored in a safe and secure manner.

- 1) No person is to leave unmoored floating property unattended in the Port.
- 2) No person shall move a boom or floating property in the Port unless the boom or floating property is in tow of a ship.
- 3) If, in the opinion of the Authority, floating property is not moored in a safe and secure manner the owner or person in charge of the floating property will be ordered to moor the floating property in a safe and secure manner.
- 4) If the owner or person in charge of the floating property fails to comply with the order of the Authority, the Authority may take such action as is necessary to remedy the situation at the risk and expense of the owner or person in charge of the floating property.
- 5) Vessels moored at authorized locations in the Port are not to raft more than three (3) vessels wide for the purpose of moorage or the transfer of fish or other cargo.
- 6) No person shall obstruct, with a boom or floating property, any channel in the Port.
- 7) While moored, vessels are to move as far off the navigable channel as is safe and practical. Vessel Masters are responsible for ensuring their vessels are moored in sufficient water to ensure safety at all stages of the tide and in all weather conditions.
- 8) Unless authorized by the Authority pursuant to a water lot or foreshore lease, no ship shall deposit logs in the waters or on the foreshore.

3.10 Movement in Fraser River – South Arm

3.10.1 General

The owner or person in charge of a vessel engaged in towing is to ensure the tow is securely fastened and under control while in transit in the harbour and is to ensure that the vessel engaged in towing has sufficient power at all times to maintain full control over the movements of the tow.

The owner or person in charge of a vessel engaged in towing is to ensure that the tow vessel is not moored or stopped at a location where part of the boom, cargo, or ship being towed lies under a bridge.

Do not overtake or attempt to overtake any part of a tow of another vessel within 500 meters of a swing span.

A vessel engaged in towing booms or floating property in the harbour is to ensure that a distance of 500 metres is maintained between the vessel and the stern of any proceeding tow.

The booms towed should be one (1) section in width (21 metres).

Owners or persons in charge of a vessel intending to enter or depart the South Arm of the Fraser River with log tows wider than one (1) section are to contact MCTS and the Harbour Master's office prior to transiting the river. This is to allow for the arrangement of any special conditions needed to ensure the safe passage of the tow and deep-sea vessels that may be transiting the harbour at the same time.

In the North Arm of the Fraser River the maximum towed boom dimensions are as follows:

- 1) In the waters between the Outer (Westerly) Light (Light No. 381) and the Inner (Easterly) Light (Light No. 385) towed booms shall not exceed five (5) sections in width and any tow wider than two (2) sections shall have sufficient assist tugs to ensure safe passage;
- 2) In the waters of Morey Channel (the Middle Arm) towed booms shall not exceed twelve (12) sections in length and one (1) section in width; and
- 3) In areas in the North Arm of the Fraser River other than a) or b) towed booms shall not exceed thirty-six (36) sections in length or one (1) section in width.

3.10.2 Triple Tows

The day prior to the arrival or departure of a tug with three (3) barges, the tow company is to request a dispatch sheet from the Pacific Pilotage Authority showing the scheduled ship movements for the next day.

On the day of the arrival or departure of a tug with three (3) barges, the towing company is to:

- 1) Confirm with the Pacific Pilotage Authority's dispatch (604-666-6776), the estimated time of arrival or departure of deep-sea vessels.
- 2) Schedule the towing company's arrival or departure so that movements cause the least amount of conflict.
- 3) Where wind and/or current will not allow the tows to track in a straight line behind the towing vessel, an assist tug is required for the transit.

The towing company is to reiterate to their Captains and Mates the need for good communication with the Pilots to ensure safe meeting and passing of vessels



3.10.3 Deep-Sea Towing Gear

If using deep-sea gear outbound:

- 1) Lengthen the tow when the last scow or barge has proceeded outward of the Sand Heads light station, unless weather does not permit, or
- 2) In the North Arm, lengthen the tow when the last scow or barge has proceeded downstream of the Inner (Easterly) Light (Light No. 385).

If using deep-sea gear inbound:

- 1) Haul in the tow as close as possible on passing abeam of the Sand Heads light station, or
- 2) In the North Arm, haul in the gear as close as possible before the last scow or barge has proceeded upstream of the Inner (Easterly) Light (Light No. 385).

3.11 Movement of Fraser River – North Arm

3.11.1 Movement & Control of Floating Property and Booms

- 1) No person shall move a boom or floating property in the Port unless the boom or floating property is in tow of a ship.
- 2) No person shall leave unmoored floating property unattended in the Port.
- 3) No person shall obstruct, with a boom or floating property, any channel in the Port.
- 4) Where a boom or floating property is located in an unauthorized area of the Port, the Authority may move the boom or floating property to any other location in the Port and the owner shall pay to the Authority the cost thereof forthwith upon demand.
- 5) All owners or persons in charge of any boom or floating property entering the Port must provide the Authority with all such information regarding the boom or floating property prior to arrival or as soon thereafter as is practical.
- 6) Unless authorized by the Authority pursuant to a water lot or foreshore lease, no ship shall deposit logs in the waters or on the foreshore.
- 7) In the event of a spill of logs or an escape of booms, the Authority may, by order in writing suspend log salvage activities by any ship in any area of the harbour for a period of up to ten days during which period the owner or his authorized agent shall recover the spilled logs or escaped booms.
- 8) During such period and within such areas of the Port as are specified in the order mentioned in Section 7, no person in charge of any ship, other than the owner of the logs or booms or his authorized agent, shall attempt to recover the logs or booms referred to in Section 7.



- 9) While transiting the navigation channels in the vicinity of the Canadian Pacific Railway Bridge - Marpole:
 - a) ships proceeding upstream shall, subject to Section 11 and Section 12, pass through the north channel (north draw on the Vancouver side) of the navigation channel; and
 - b) ships proceeding downstream shall, subject to Section 11 and Section 12, pass through the south channel (south draw on the Richmond side) of the navigation channel.
- 10) Every ship transiting the navigation channels in the vicinity of the Canadian Pacific Railway Bridge - Marpole shall:
 - a) maintain a listening watch on VHF Channel 06; and
 - b) make two security calls on VHF Channel 06 to determine if there is any opposing traffic. The call in points for such safety calls are:
 - i) Hodder's Tug Boat Dock; and
 - ii) the downriver end of Richmond Island.

Prior to departure from any berth or vessel tie-up at the call in points referred to in subsection (i) or (ii) above, or from Mitchell Slough or the Middle Arm (Morey Channel), the ship shall make at least 2 security calls on VHF Channel 06 advising other ships in the vicinity of its intentions.

- 1) Where for safety reasons, a ship is transiting the Canadian Pacific Railway Bridge - Marpole counter to the procedure described in Section 9, the ship shall make at least two security broadcasts on VHF Channel 06, advising other marine users of its intentions.
- 2) Notwithstanding the foregoing and subject to the Collision Regulations, alternative arrangements may be made through bridge-to-bridge communications between passing ships.

3.11.2 Towing

- 1) The owner or person in charge of a ship that is towing a boom or floating property shall keep the boom or floating property securely fastened or under control while in transit in the Port.



- 2) If the owner or person in charge of a ship referred to in Section 1 fails to comply with Section 1, the Authority may order such person to securely fasten the boom.
- 3) The owner or person in charge of a ship referred to in Section 1 shall forthwith comply with any order of the Authority under Section 2 failing which the Authority may take such corrective action as is necessary to remedy the situation and the owner or person in charge of the ship shall pay to the Authority the cost thereof forthwith upon demand.
- 4) The owner or person in charge of a ship that has in tow any boom, cargo or other ship shall ensure that the tow ship is not moored or stopped at a location where part of the boom, cargo or ship being towed lies under a bridge.
- 5) The owner or person in charge of a ship that has in tow any boom, cargo or other ship shall ensure that the tow ship has sufficient power at all times to maintain full control over the movements of the boom, cargo and other ship.
- 6) The owner or person in charge of a ship towing scows or barges shall ensure that the ship:
 - a) if outbound, does not pay out its deep sea gear until the last scow or barge has proceeded downstream of the Inner (Easterly) Light; and
 - b) if inbound and using deep sea gear, close couples its towing gear before the last barge or scow has proceeded upstream of the Inner (Easterly) Light.
- 7) The owner or person in charge of a ship that has in tow any boom, cargo or other ship shall not, within 500 metres of a swing span bridge, overtake or attempt to overtake any part of the tow of any other ship.
- 8) The owner or person in charge of a ship with two or more scows or barges in tow shall not pass through the draw of a swing span bridge unless the scows or barges are close coupled in such a manner as to prevent the scows or barges from sheering.
- 9) Subject to Section 10 and Section 11, the owner or person in charge of a ship shall not tow, within the limits of the Port, any boom exceeding thirty-six (36) boom sections in length or one boom section in width.
- 10) A boom in tow in the waters between the Outer (Westerly) Light and the Inner (Easterly) Light shall not exceed five (5) boom sections in width. Any incoming tow wider than two (2) sections shall have sufficient assist ships to ensure safe passage.
- 11) A boom in tow in the waters of the Middle Arm (Morey Channel) shall not exceed twelve (12) sections in length or one (1) boom section in width.

3.12 Escorts

3.12.1 Tankers

The Harbour Master's launch will be available to clear traffic and provide escort services through First and Second Narrows.

3.12.2 Cruise Ships

During high traffic times the Harbour Master's launch will be available to provide escorts through First Narrows.

3.12.3 Other Vessels

In extraordinary circumstances the Harbour Master's launch will be available to provide escorts through Vancouver harbour.

3.13 SPEED LIMITS

Where necessary, a velocity relating to safe speed may be defined by the Authority and posted.

Every vessel or ship in the Port shall at all times:

- 1) Move at a 'Safe Speed' - so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.
- 2) Have due regard for small craft, towing, log loading, bunkering, diving operations. Notices to Shipping and Notices to Mariners will identify works in progress and vessels are to proceed past these works at the minimum speed at which the vessel can be kept on course.
- 3) Obey five-knot speed limit within False Creek, Bedwell Bay, Belcarra Bay, Deep Cove, Strathcona Park and Coal Harbour.
- 4) The wake and wash from a vessel or ship are not to cause a risk to the safety of life or damage to property.

Section 4: Vessel Operations

4.1 Visits

Every vessel entering the Port may be subject to a visit from Port's representative.

During its visit on board, the Port's officer may accomplish several tasks or issues orders to accomplish certain tasks (sealing of overside discharge valve, handling documentation, air



emission program) and will, upon request, provide the master with information about the Port.

4.2 Overside Discharges

4.2.1 Application

For the purpose of this procedure, the term "overside discharges" refers to the discharge of any liquids from a vessel other than ballast water. (Ballast water is dealt within a separate procedure.)

4.2.2 Sealing of Overside Discharge Valves

It is an offence to discharge into the Port any oil or other liquids containing oil. To help protect vessels from the accidental discharge of oil or oily water, when on board the Harbour Master's Patrol Staff may seal, or request the sealing of, the engine room bilge over side discharge valve(s), but it remains the master's obligation to do so. This valve(s) is normally located between the oily water separator and the engine room bilge discharge port.

4.2.3 Hold Washing Discharge

Any request will be treated on the case-by-case basis through Transport Canada Marine Safety at 604.666.5300 or after hours/emergency (604) 666-4765.

4.2.4 Accidental Discharges

All accidental over side discharges must be reported immediately to MCTS. If the discharge contains oil or other deleterious substances, the vessel must immediately activate its pollution response plan.

4.3 Oil Transfer Procedures

4.3.1 Introduction

The oil receiver and the oil supplier should before transferring:

- 1) Agree on the appointment of a competent person to supervise the transfer operation.
- 2) Agree on the handling procedures including the maximum loading or unloading rates.
- 3) Complete and sign the "Oil Transfer Check List".



- 4) Agree on the action to be taken in the event of an emergency during handling operations.

In order to assist oil suppliers and receivers in their joint use of the "Oil Transfer Check List", these procedures have been drawn up. They are based on the International Maritime Organization's (IMO) recommendations on the safe transport, handling and storage of dangerous substances in port areas.

4.3.2 Bunkering and Bulk Oil Deliveries

A ship's agent shall advise the Harbour Master's office at least 12 hours notice of bunkering or the loading of bulk oils either from a barge or tanker truck, through PGP. Whenever possible bunkering and the transfer of bulk oils will take place during daylight hours.

The loading of bunkers and bulk oils is only permitted alongside a berth or, if this is not possible at an Inner Harbour or Indian Arm anchorage.

The loading of bunkers and bulk oils is not permitted under any circumstances for vessels berthed at Deltaport and Westshore Terminals.

The loading of bunkers and bulk oils is not permitted for vessels loading or discharging chemicals at Lynnterm No. 7.

4.3.3 Application

The "Oil Transfer Check List" applies to all oil transfer operations in the Port. Vessels loading oil only as a cargo are excluded.

4.3.4 Mutual Safety Examination

An oil receiver needs to check his preparations prior to transferring oil. Additionally, he has a responsibility to assure himself that the oil supplier has likewise made proper preparations.

Equally the oil supplier needs to check his own preparations and to be assured that the oil receiver has carried out his checks and has made appropriate arrangements.

In carrying out their full responsibilities, both the oil receiver and the oil supplier, by questioning each other and by joint visual inspection should assure themselves that the standards of safety on both sides of the operation are fully acceptable.

4.3.5 Change of Conditions

The conditions under which oil transfers take place may change during the process. The changes may be such that the integrity of the operation can no longer be guaranteed. The

party noticing or causing the change of condition is under an obligation to take all necessary actions, which may include stopping the operation, to re-establish safe conditions. The change of conditions should be reported to the other party, and where necessary, co-operation with the other party should be sought.

4.3.6 Transferring Fuel Internally

Care should be taken if it is necessary to transfer oil internally between tanks. Except for bunker barges, there should be no internal transfer into a tank, which is greater than 85 percent full, prior to transfer.

Except for bunker barges, the transferring of oil should not be used to adjust a vessel's trim.

4.3.7 Spill Response Planning

The *Canada Shipping Act* requires vessels to have an Oil Pollution Emergency Plan. The plan must identify the person authorized to implement the plan and also confirm the vessel has an arrangement with a Canadian Coast Guard certified response organization.

In the event of a spill during the transfer operations, the Receiver and Supplier must both immediately notify MCTS. The *Canada Shipping Act* requires both the oil supplier and oil receiver to immediately implement their oil pollution emergency plan and responds to the spill.

4.3.8 Notification of Transfer

The "Instructions for Completion" section of the "Oil Transfer Check List" form, state that no oil is to be transferred until this form is completed in its entirety.

Where possible, a Harbour Master's representative will attend all transfer operations on deep sea vessels, at which time the Harbour Master's copy of the Bunker Transit Checklist may be handed in.

However it will be the responsibility of the oil supplier to inform the Harbour Master's office in advance that the transfer operation is to take place, and to forward a copy of the completed form within 48 hours of the completion of the operation if no representative of the Harbour Master is able to attend.

If a representative of the Harbour Master attends a transfer operation whilst it is underway and finds that a copy of the form has not been completed nor its requirements adhered to, the Harbour Master's representative may order the operation to be stopped until the form is duly completed.



4.3.9 Guidelines for Completing the Oil Transfer Checklist Questionnaire

- 1) Has the Harbour Master's Office been advised of transfer?

Prior to a transfer-taking place, notification must be given to the Harbour Master's Office. The Duty Harbour Master may be contacted at any time after office hours through Vancouver Marine Communications and Traffic Services Centre (MCTS) at 666-6011. It is recommended that at least 12 hours notice be given.

- 2) Are vessels securely moored/anchored?

In answering this question, due regard should be given to the need for adequate fendering Arrangements

- a) Vessels should remain adequately secured in their moorings. Ranging of the vessel when alongside piers or quays should be prevented by keeping all mooring lines taut; attention should be given to the movement of the vessel caused by currents, tides, passing vessels and the operation in progress.
- b) The Delivery truck to be stationary and secured as per operating requirements.
- c) Means should be provided to enable quick and safe release of the vessel in case of an emergency.
- d) The method used for the emergency release operation should be agreed, taking into account the possible risks involved.

- 3) Are emergency towing lines/wire rigged?

Emergency towing lines should be positioned both on the offshore bow and quarter of the receiving vessel.

The eyes of these lines should be maintained at 1 metre above the waterline and regularly check and adjusted if necessary during the operations. They should be properly made fast on the vessel's bollards.

- 4) Is there a spill response plan?

The oil receiver and oil supplier will together:

- a) agree on action to be taken in the event of a spill incident, including immediate reporting of same.



- b) identify a list of sources of immediately available clean up and containment material. Identify the person authorized to activate each parties oil spill response plan.

5) Is there an effective watch at all stations?

The operation should be under constant control both by the receiver and the supplier with visual observation.

Supervision should be aimed at preventing the development of hazardous situations; if, however, such a situation arises, the controlling personnel should have adequate means available to take corrective action.

All personnel connected with the operations should be familiar with the dangers of the substances handled.

6) Is there an agreed communication system?

An intrinsically safe communication system should be agreed upon and tested prior to commencing the transfer.

7) Have procedures for oil transfer handling been agreed?

The procedures for the intended operation should be pre-planned. They should be discussed and agreed upon by the receiver and the supplier prior to the start of the operations.

The agreed arrangements should include:

- a) Type of product to be transferred.
- b) Quantity of product in metric tonnes or litres.
- c) Description of tank, i.e. no. 2 wing tank.
- d) Capacity of loading tank, taking into account whatever fuel may already be in the tank.
- e) The rate of loading in metric tonnes/litres per hour.
- f) The loading pressure in pounds per square inch.

Any change in the agreed procedure that could affect the operation should be discussed and agreed upon. After agreement has been reached by both parties, substantial changes should be laid down in writing as soon as possible and in sufficient time before the change in procedure takes place.



8) Have emergency shutdown procedures been agreed?

An emergency shutdown procedure should be agreed and recorded. The agreement should designate in which cases the operations have to be stopped immediately.

Due regard should be given to the possible introduction of dangers associated with the emergency shutdown procedure.

9) Are transfer hoses in good condition and properly rigged?

Hoses and metal arms should be in good condition and should be properly fitted and rigged so as to prevent strain and stress beyond design limitations. All flange connections should be fully bolted.

10) Are scuppers plugged and drip trays positioned?

Where applicable, scuppers should be properly plugged during the operation. Accumulations of water should be drained off periodically.

Manifold and air vents should ideally be provided with fixed drip trays; in their absence portable drip trays may be used.

11) Are unused connections blanked?

Unused oil line connections should be closed and blanked. Blank flanges should be fully bolted and other types of fittings, properly secured.

12) Are safety/smoking requirements being observed?

Personnel will observe all safety requirements. Attention should be paid to ensure there is safe access particularly between vessels.

13) Are sufficient qualified personnel available to deal with an emergency?

The Master is to ensure that sufficient qualified personnel be available at all times.

OIL TRANSFER CHECK LIST

HM 101/96

RECEIVING VESSEL (If appropriate) _____

SUPPLYING VESSEL (If Berth/Anchorage) _____

INSTRUCTIONS FOR COMPLETION:

The Safety of Operations requires that all questions be answered affirmatively. In the case of a negative answer, the fuelling operation shall not be carried out without the permission of the Harbour Master.

No oil is to be transferred until this form is completed in its entirety. The completed copy must be faxed (604-665-9099) or mailed by the oil supplier to the Harbour Master's Office, 100 The Pointe, 999 Canada Place, Vancouver, BC V6C 3T4 within 48 hours of completion of the operation.

QUESTION	RECEIVER		SUPPLIER	
	YES	NO	YES	NO
Has the Harbour Master's Office been advised of transfer?				
Are vessels securely moored/anchored?				
Are emergency towing lines/wire rigged?				
Is there a spill response plan?				
Person authorized to initiate response plan. (Receiver) NAME: _____ TEL: _____ (Supplier) NAME: _____ TEL: _____				
Is there an effective watch at all stations?				
Is there an agreed communication system?				
Have procedures for oil transfer handling been agreed?				

Have emergency shutdown procedures been agreed?				
Are transfer hoses in good condition and properly rigged?				
Are scuppers plugged and drip trays positioned?				
Are unused connections blanked?				
Are safety/smoking requirements being observed?				
Are sufficient qualified personnel available to deal with an emergency?				

Date/Time	Product	Quantity to be loaded (MTL/LTR/BBL)	Description of Loading Tank	Capacity of Loading Tank	Rate MT/LTR/Hr	Pressure (PSI)

DECLARATION:

We have checked, where appropriate jointly, the items on this check list, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

NAME:

NAME:

POSITION:

POSITION:

SIGNATURE:

SIGNATURE:

Original - Harbour Master's Office

Yellow - Supplier

Pink - Receiver

4.4 Tanker Operations

4.4.1 Definition

The term Tanker applies to all carriers of bulk petroleum or chemical products or other liquid cargoes.

4.4.2 Reporting

The Master of a tanker in a loaded or non-gas free condition must obtain permission from the Harbour Master's Office to enter the Port limits.

In order to receive permission, the Master shall provide the Harbour Master's Office 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.

4.4.3 Combination Carriers – Oil, Bulk, Ore

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



- 1) The vessel's master or his representative produces, before arrival, a properly completed Certificate of Class satisfying the Harbour Master's Office that the vessel has been re-classified for the Carriage of Dry-Bulk Cargoes only.

Or

- 2) There is produced to the Harbour Master's satisfaction, a letter from the vessel's master or his 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:

- a) All cargo compartments designed for dry bulk loading thoroughly cleaned and declared gas free. All other holds to be gas free, inerted or ballasted.
- b) 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.
- c) Oil slop tanks unless gas free must be inerted to maintain a maximum of 8 percent oxygen content in the system at constant positive pressure. The conditions referred to in b) and c) above shall be maintained during the ship's stay in port.
- d) A certificate from a qualified marine chemist for the current conditions existing under items a), b) and c) 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 of the loading berth.

4.4.4 Lightering

Conditions for cargo lightering to tankers at anchor:

- 1) 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 Authority.
- 2) 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.
- 3) Oil lightering operations to tankers will only take place at anchorages K, L or M.
- 4) Prior to pumping product, the form "Oil Safety Check List" must be completed by the receiving vessel and the delivery barge.



- 5) When transferring petroleum products, a boat provided with a minimum crew of two, equipped with cleanup materials and sufficient containment boom to surround the ship and barge, will stand by at the ship at all times during transfer operation.
- 6) When the product being lightered is diesel fuel oil or heavier, the containment boom must be deployed around the ship and barge at all times whilst product is being transferred.
- 7) 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.
- 8) 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.
- 9) The Authority may alter these conditions at any time without notice.
- 10) The Authority may terminate the practice of lightering at its discretion without consultation.

4.4.5 Anchoring

No tanker will anchor between First and Second Narrows, except with approval from the Harbour Master's Office.

BUNKERING AND PROVISIONING

Bunkering and Provisioning will not be permitted during cargo operations.

4.5 Anchorages

4.5.1 Anchorage Requests

Every effort will be made to assign Anchorages 24 hours prior to the arrival of a vessel, subject to availability, providing at least 24 hours notice is given. However, it is understood that some requests due to emergencies, berth delays etc. may require immediate assistance.

Vancouver Marine Communications and Traffic Services Centre (MCTS) may be contacted at any time after office hours at 666-6011. When necessary MCTS will contact the Harbour Patrol Vessel or the Duty Harbour Master.

In addition, an English Bay anchorage, Inner Harbour anchorage & Indian Arm anchorage are reserved daily for emergency use.

4.5.2 Ships at Anchor

A continuous navigation watch must be maintained at anchor. In all circumstances, while at anchor, the officer of the watch must:



- 1) determine and plot the ship's position on the appropriate chart as soon as possible, when circumstances permit, check at sufficiently frequent intervals whether the ship is remaining securely at anchor by taking bearings of fixed navigational marks or readily identifiable shore objects.
- 2) ensure that an efficient look-out is maintained;
- 3) ensure that inspection rounds of the ship are made periodically;
- 4) observe meteorological and tidal conditions and the state of the sea;
- 5) notify the master and undertake all necessary measures if the ship drags anchor;
- 6) ensure that the state of readiness of the main engines and other machinery including 2nd anchor is in accordance with the master's instructions;
- 7) if visibility deteriorates, notify the master and comply with the applicable regulations for preventing collisions at sea;
- 8) ensure that the ship exhibits the appropriate lights and shapes and that appropriate sound signals are made at all times, as required;
- 9) take measures to protect the environment from pollution by the ship and comply with applicable pollution regulations
- 10) Continuously monitor channel 12.

Furthermore, to ensure a safe and seaworthy condition at anchorage, vessels are advised that they should not completely deballast until cargo-loading operations have begun.

4.5.3 Anchorage Information

When making an anchorage request the following information should be entered in PGP

- name of agency handling ship
- name of agency representative requesting the anchorage
- ships name
- ships length overall
- Ship's draught upon arrival at the anchorage
- ships estimated time of arrival at the Port
- ships estimated length of stay at anchor
- type of cargo to be loaded/discharged
- any other pertinent information:

- part-loaded
- taking bunkers
- machinery defects
- 2nd Narrows transit, etc.

4.5.4 Inner Harbour Anchorages

There are 7 anchorages available between 1st & 2nd Narrows.

Anchorage	Max length of Vessels (meters)	Remarks
A	185	
B	260	
C	260	
D	185	
E	155	
X	155	
Y	260	Pilot to remain on board due to adverse current conditions.

Preferences for these anchorages will be given to vessels requiring bunkers, lime wash, crew change, transit 2nd Narrows or any other reasonable purpose. These anchorages will usually be assigned for short periods. The period might be extended on request if there are no other ships requiring inner harbour anchorages.

There are 4 anchorages available east of 2nd Narrows in Indian Arm.

Anchorage	Max length of Vessels (meters)	Remarks
K	260	Preference to loaded vessels

L	260
M	260
N	260

Indian Arm anchorages are available to vessels awaiting berth east of 2nd Narrows or awaiting West bound transit of 2nd Narrows.

4.5.5 English Bay Anchorages

There are 16 Anchorages available in English Bay.

Anchorage	Max length of Vessels (meters)	Remarks
1	260	no deep draft vessels
2	260	
3	260	
4	260	no deep draft vessels
5	260	
6	260	
7	260	no deep draft vessels
8	260	
9	260	
10	260	no deep draft vessels
11	260	
12	260	
13	185	Seasonal (see section 4.5.8)
14	185	Seasonal (see section 4.5.8)
15	185	Seasonal (see section 4.5.8)

Z

Barges & small vessels only

NOTE: For vessels greater than 260 meters or in an emergency, the Duty Patrol, or Harbour Master may offset an anchorage, to allow the vessel to anchor. In such cases, safety will be the deciding factor.

4.5.6 Roberts Bank Anchorages

There is one Anchorage available near Roberts Bank

Anchorage	Maximum Vessel Length (m)	Remarks
R	320	Pilot must remain onboard due to depth of water and prevailing weather conditions

4.5.7 Other Anchorages

In times of congestion within the Port, vessels may be directed to anchor off Vancouver Island. These anchorages are assigned by the Pacific Pilotage Authority or by local port authorities

4.5.8 Anchorage Priorities

Anchorages other than for the Inner Harbour are assigned on a first come first serve basis subject to availability.

However, this does not apply to vessels waiting for other ports, or not utilizing the Port. These vessels will be assigned anchorages subject to availability.

4.5.9 Seasonal Anchorages

Vessels in anchorages 13, 14 & 15 are susceptible to dragging in strong southerly winds. The use of these anchorages is restricted from 1st November to 1st April when strong southerly winds are predominant.



4.5.10 Anchorage Warnings

Vancouver Traffic will broadcast on CH12 a wind warning advisory for all vessels at anchor in the Port of Vancouver, under the following circumstances.

- 1) When winds reach or exceed 30 knots from any direction at First Narrows.
- 2) When winds are West to North West 20 knots or greater at First Narrows and a gale warning for North Westerly winds has been issued for Georgia Straight.
- 3) At the discretion of the Harbour Master or Vancouver Marine Communications and Traffic Services Centre.

4.5.11 Cancellations

The anchorage warning will be cancelled when:

- 1) Winds have abated below 30 knots for over one hour (below 20 knots for over one hour if from the West or North West).
- 2) At the discretion of the Vancouver Marine Communications and Traffic Services Centre (MCTS).

4.5.12 Improperly Anchored Vessels

If a vessel fails to anchor in its assigned anchorage or if a vessel drags out of position in the anchorage, and:

- 1) The vessel is endangering other vessels at anchor, or;
- 2) The vessel is obstructing the use of other anchorages.

The vessel will be required to be repositioned by a BC Coast Pilot, and to absorb all costs associated with the repositioning.

4.6 Berthing

4.6.1 General

Vancouver Fraser Port Authority manages the conduct of vessels berthing in the Port.

4.6.2 Overhang

Any vessel requiring overhanging a berth should contact the Harbour Master's Office prior to berthing or shifting. The Harbour Master's office will require that the vessel:

- Will not obstruct the passage of any other vessel.



- Properly illuminates the overhang from sunset to sunrise
- Does not, with regard to the prevailing weather conditions, tide or current pose a potential danger to the port.
- Does not impact on adjacent berths or facilities.

When assessing a request for a vessel to overhang, the interests of the terminal operator must be considered. However, for overhangs in excess of 20% of the vessels length additional requirements may be imposed on the vessel, including the use of tugs, and additional mooring lines.

4.6.3 Shifting Along the Berth

Any vessel requiring to shift along a berth must inform the Harbour Master's Office. Vessels may shift without a Pilot providing:

- Approval is received from the Harbour Master's Office.
- No tugs are to be employed
- The berth is free from encumbrances (i.e. cranes, gangways, etc. are moved clear)
- The Master is on the bridge in overall charge.
- Main engines are on standby and ready for immediate use.
- Linesmen are employed.
- There are two head/stern lines and one spring each end under tension at all times.
- Vancouver Marine Communications and Traffic Services Centre (MCTS) is notified at the commencement of any shift and also at its completion using CH. 12 or 74 VHF depending on the positioning of the vessel.
- CH 12 or 74 VHF is monitored throughout the shift.

For vessels berthed at Vancouver Wharves or Lynnterm, the maximum distance a vessel may shift without a pilot is 30 meters.

In certain circumstances due to weather conditions, tide, current, distance of shift, characteristics of vessel or where main engines are to be utilized, the Harbour Master may require tugs and/or a pilot to be used. However, nothing in these procedures relieves the master of the vessel from his obligations for safety, following additional precautions as would be required by the normal practice of seamen or from employing a pilot and tug(s) if

he so requires. These procedures are to be considered the minimum requirements for shifting.

4.6.4 Emergency Towing Lines

In the event of a fire or other emergency, it may be necessary to take a vessel off the berth.

Vessels berthed in the Port shall rig a tow line at both bow and stern, securely fastened on deck by one end and hanging over the offshore side of the vessel with an eye in the other end positioned not more than 1 metre above the waterline.

Towlines for tankers are mandatory and they must be made of steel.

4.6.5 Immobilizing Main Engines or engaging propulsion systems alongside

No vessel shall immobilize its main engines whilst alongside or engage/test its propulsion systems and machinery whilst alongside without the approval of the Harbour Master's Office. The Harbour Master's Office 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 is to be tested.
- The characteristics of the vessel.
- If approval is given, then the vessel will be required to:
 - Provide a continuous vigilant deck watch.
 - Advise Vancouver Marine Communications and Traffic Services Centre (MCTS) 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.
 - Ensure emergency towing lines are properly rigged. (See Section 5.4)
 - Provide a minimum of 4 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.

Note: 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 whilst at anchor.

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.

4.6.6 Berthing of Non-Cruise vessel at Canada Place

The following marine conditions apply to this berth arrangement:

- 1) The opening and closing of hatch covers should be kept to a minimum and can only take place between the hours of 0800 – 1800.
- 2) Any activity that creates excessive noise for building tenants may be prohibited, particularly after 1800 hours.
- 3) Every effort is to be made to minimize funnel emissions in order to avoid intakes into the building air conditioning system.
- 4) No maintenance or repair activities are to take place without specific approval by the Harbour Master Office.

Additional security measures will be required to berth at Canada Place. The Harbour Master will provide detailed requirements following the assessment your request.

4.6.7 Berthing Large Vessels at Dry-dock Pier

The Harbour Master Office will approve the berthing if usual mooring practices are met, and in addition:

- 1) Port side to, bow south
 - At least three lines from the port forward should lead to the dry dock to be within 100 of right angles to the centre line of the ship.
 - Bow not to project more than 18.3 metres (60 ft.) south of the extreme seaward end of the dock.
 - Starboard anchor down.
- 2) Starboard side to, bow north
 - Stern not to project more than 12.2 metres (40 ft.) south of the extreme seaward end of the dry dock. At least three aft breast lines to be led from the shoulder to the dry dock, within 100 of right angles to the centre line of the ship.

If these conditions are met there will not be a requirement for a stand-by tug.

4.7 Air Emissions

The Authority is committed to reducing port-related air emissions that contribute to air quality and climate change, including those from ocean going vessels (“OGVs”).

The VPA takes a multi-pronged approach to reducing OGV emissions:

- Prohibition of excessive exhaust opacity of any color with the exception of steam (water vapor)
- Recognition for vessels that implement eligible emission reduction measures through:
 - reduced harbour due rates (air emissions standards)
 - public relations and communications

The VFPA responds to excessive exhaust opacity from OGVs by contacting and/or boarding the vessel to inform the operators of the problem and to discuss resolutions.

Additional information on Port Harbour dues air emission standards (gold, silver, bronze) can be found in the VFPA Fee Detail Document at:

www.portvancouver.com

Air emission standard applications (“Applications”) must be submitted online through:

www.pacificgatewayportal.com

If you have any questions or comments regarding the Air emission standards, please contact the Harbour Master’s office at (604) 665-9086 or via E-mail at

Harbour_Master@portvancouver.com

4.8 VESSEL SERVICE REQUEST

The following vessel service requests:

- Hot work request
- Engine Immobilization
- Cargo Hold Inspections



- Bunker Notification
- Lifeboat Servicing
- Shift without a pilot

Must be requested electronically through PGP .To be able to access the service you must register at: <http://www.pacificgatewayportal.com/pgpsite/appnon/registration/intro.aspx>

For more information contact Harbour Master's office at (604) 665-9086

Section 5: Cargo Operations

5.1 General – Dangerous Goods

Dangerous Goods that are to be loaded or unloaded or remain aboard a vessel, including a barge, within the Port, are to be handled in compliance with applicable Dangerous Goods codes, regulations, and Acts.

5.2 Movement of Dangerous Goods

Prior to the movement of those Goods within the Port, vessels are to fill out the Dangerous Goods Movement Information Sheet and fax copies to both the Harbour Master's office (fax: 1.866.284.4271) and Transport Canada Marine Safety's office (fax: 604.666.9177).

5.3 Handling Explosives

If handling explosives, both the terminal and Transport Canada Marine Safety's office (phone: 604.666.5462 or fax: 604.666.9177) are to be notified of the Operator's plan prior to proceeding.

- 1) In addition to these notifications, the Operator must receive advance authorization to proceed from the Authority. Authorization to proceed may be obtained by phoning the Harbour Master's office (604 665 9086).
- 2) The Authority will not grant such authorization until the Harbour Master's office has received Transport Canada Marine Safety office's verbal or written confirmation of prior notification of the shipment and of the vessel's compliance with both Transport Canada's and the terminal's requirements.

5.4 Lightering

5.4.1 Dry Cargo Lightering at Anchorage

- 1) The lightering of dry cargo at anchor introduces an additional risk of pollution incidents by the double handling of the product. This also prolongs the usage of anchorages. Therefore it will only be allowed at the discretion of the Authority.
- 2) Permission may be granted when all precautions are made to assure there is no spillage of cargo into water (i.e. tarps from ship to barge).

Section 6: Non- Deep Sea Traffic

6.1 Commercial Fishing

6.1.1 General

Commercial vessel traffic and Fishers must be aware of the dangers posed by each others' activities during fishery openings on the Fraser River, as unsafe and dangerous situations can occur when commercial traffic attempts to manoeuvre around nets.

6.1.2 Communications

Fishers are to monitor VHF channel 74. During Area 29 (Fraser River) gillnet openings; all commercial traffic movements are broadcast on this channel, providing warning to Fishers of ship movements along the Fraser River.

6.1.3 Commercial Navigation Considerations

Vessels are to stay in the proper upriver or downriver designated channel. Operators of all vessels are to take early and substantial action to keep well clear of all other vessels and gear.

Vessels should not to alter course, as generally Fishers will judge by the speed of the vessels and through broadcasts when to lift the net. Altering course may cause additional hazards.

Any person using a gill net to fish in the North Arm of the Fraser River shall, upon being notified by four (4) long whistle blasts from an approaching vessel or ship, haul in the net to allow passage of the approaching vessel or ship.

When navigating in the vicinity of New Westminster Harbour, vessels are to navigate so as to keep to the side of the main channel that lies on the port side of the vessel.



Fully extended gillnets are up to 200 fathoms (375 metres) long and supported on the surface by small floats that may not be readily visible. During the day a plastic float (Scotchman) is at the end of the net and at night the end of the net is marked by a white light. When approaching, vessels are to reduce speed until the floats are observed, or the Operator signals by hand or with a spotlight at night, indicating the direction in which the net is set.

The correct navigation lights or shapes are to be displayed at all times.

6.1.4 Fishing Vessel Considerations

When setting near swing bridges, Operators are to monitor VHF channel 74 for valuable information on traffic intending to transit the bridge and be watchful for a bridge opening as this indicates the approach of a larger vessel. Do not make a set that interferes with the vessel's transit of the bridge.

Fishing vessels are to work with a partner vessel that can render assistance if needed.

Fishers on a drift are to set their nets in the same direction, whenever possible, to permit safe passage of other traffic.

In order to avoid impacting another vessel, and to reduce the possibility of serious injury, loss of life, or damage to the vessel, vessels unable to manoeuvre quickly are to provide whistle signals in accordance with the Collision Regulations and remain on course.

If collision with another vessel is imminent, Fishers are to either run the net out, so the net sustains the damage, or "dog" the drum and attempt to tow the net out of danger, thus reducing the possibility of loss of life or damage to the vessel.

At night, when approached by other vessels, Fishers are to use a searchlight to show the direction of the net in the water, ensuring the searchlight does not blind the Operator of the approaching vessel. Towboats are also to use searchlights, whenever possible, to show their preferred direction of travel in order to help Fishers decide when and how far to move

6.2 Log Operations

6.2.1 Log Loading in the Fraser River

6.2.1.1 Permit Application

- 1) Log loading is permitted in Timberland Basin and at Fraser Surrey Docks upon receipt of a permit from the Authority.



- 2) A Contractor wishing to load logs must complete an Application for Log Loading Permit. The Application can be obtained by contacting the Harbour Master's office (telephone number) or downloading from (website) and faxed to the Harbour Master's office (fax number) or electronically completed and e-mailed to (e-mail address). The following information is required:
 - a) Name of company responsible for log loading;
 - b) Anticipated load date; and
 - c) hip/barge name.
- 3) Once approval has been granted, the Harbour Master's office will fax or email the permit back to the applicant.

6.2.1.2 Pre-Loading Requirements

A Notice to Shipping (Notship) is to be requested through the Canadian Coast Guard Information Centre (fax: 604-666-8453; e-mail: offshore@rmic.gc.ca; phone: 604-666-6012), forty-eight (48) hours in advance of the commencement of loading activity to ensure that pilots and other users of Timberland basin are well informed of the proposed activities. Notships should include the following information:

- a) Start and end dates;
- b) Loading berth;
- c) Vessel name;
- d) Standby channel; and
- e) Contact information.

6.2.1.3 Storage

- 1) Logs for export are not to be positioned at Fraser Surrey Docks more than seven days in advance of loading.
- 2) A Log Storage Manager will assign the area for storage.
- 3) The Contractor is responsible for control of the logs during the log loading activity.



6.2.1.4 Loading

- 1) It is the Contractor's responsibility to ensure that all logs for export are located in the assigned area and that booms remain intact during maneuvering for purpose of loading.
- 2) When active loading or preparation is under way, the Contractor's assist boats are to monitor VHF channel 08 and respond promptly to clear channel.
- 3) When placing logs alongside a ship, the Contractor is to ensure they are contained within the structure of a boom. Loose logs and/or bundles are prohibited as they endanger navigational safety and the environment within Timberland Basin.
- 4) The Contractor is to ensure only one (1) boom width is moored alongside the vessel at any one time.
- 5) The Contractor is to ensure booms are not tied to training works, navigation aids, or ladders.
- 6) Booms may only be tied to bollards on the dock face temporarily. To facilitate use of dock bollards, the Contractor may hang wire straps from the bollard over the edge of the dock.
- 7) The Contractor is not to release any logs, wires, or floating debris from the log booms or bags.
- 8) The Contractor is responsible for the disposal of all debris generated by the operation.

6.2.1.5 Completion

- 1) On completion of log loading, the Contractor is to complete the Remittance Report section of the Log Loading Permit and fax the Authority at (fax number) or e-mail (e-mail address). The following information is required:
 - a) Load site;
 - b) Load date; and
 - c) Quantity (Scribner).
- 2) The Authority will then issue an invoice in the amount of the current Scribner charge, as detailed in the Authority's Schedule of Port Fees, to generate funds to cover the costs of cleaning up any chains, wires, or logs lost during the loading process. The Schedule can be obtained by contacting the Authority (telephone number) or downloaded from (website).
- 3) In the event a vessel or structure sustains damage or delay that can be attributed to the log loading activity, the Contractor is responsible for the related costs of resolving the problem.



6.2.2 North Arm Log Transit and Scow Mooring Grounds

6.2.2.1 General

- 1) The Authority may determine the applicable period of temporary mooring for booms, scows and barges, from time to time.
- 2) No ship shall, for the purposes of salvaging logs, enter the log transit grounds, the Point Grey Log Storage Grounds or the scow mooring grounds.
- 3) The Authority may move a ship located in the log transit grounds or the scow mooring grounds for more than seventy-two (72) hours to any other place in the Port at the risk and expense of the owner of the ship.
- 4) All owners or persons in charge of any boom or floating property entering the North Arm of the Fraser River must provide the Authority with all such information regarding the boom or floating property prior to arrival or as soon thereafter as is practical.

6.2.2.2 Scow Mooring Grounds

- 1) In order to promote safe and efficient navigation in the waters of the North Arm of the Fraser River, the scow mooring grounds shall only be used for the temporary moorage of scows and barges which are in transit through the Port.

6.2.2.3 Log Transit Grounds

- 1) In order to promote the safe and efficient navigation of the North Arm of the Fraser River, the log transit grounds shall only be used for the temporary storage of booms that are in transit through the Port.
- 2) No boom moored in the log transit grounds shall exceed:
 - a) When fronting mooring dolphins 1A to 71, inclusive, in the North Arm Jetty log transit grounds, three (3) boom sections in width;
 - b) When fronting mooring dolphins 72 to 88, inclusive, in the North Arm Jetty log transit grounds, four (4) boom sections in width;
 - c) When fronting mooring dolphins 1 to 9, inclusive, in the Sea Island (Sheeting) log transit grounds, two (2) boom sections in width; and
 - d) Booms moored at dolphins 1 thru 88, inclusive, in the North Arm Jetty log transit grounds longer than 72 hours will be charged a fee as detailed in the (fee schedule) for each 24 hour period



- 3) In order to promote the safe and efficient navigation of the North Arm of the Fraser River, all ships using the log transit grounds must adhere to the following procedures:
 - a) All available dolphin wires must be utilized when securing booms;
 - b) Tween ties (belly ties) must be made every four to six sections;
 - c) In the event a boom does not fit between dolphins, it must be moved into a position which will enable tow ties and prevent the boom swinging onto the beach area; and
 - d) When unusual circumstances make it necessary to temporarily moor a boom that will exceed the limit of width for the area concerned, the vessel in charge shall stand by its tow while so moored and immediately notify the Harbour Master's office.

6.2.3 Log Procedures in Burrard Inlet

6.2.3.1 Log Procedures in Burrard Inlet

The following procedures are to be followed for the storage, handling and movement of logs within the Burrard Inlet area of the Port:

- 1) Up to 80 sections of logs may be stored at the Navy Buoys. Logs in excess of that quantity must be stored at other log storage locations, including Chief George's Buoy. Tugs delivering logs to Burrard Inlet must notify MCTS "Vancouver Traffic" of the number of sections being delivered and the intended storage site. MCTS will provide the tug with the current number of sections stored at the Navy Buoys. If the number of sections at the buoy, plus the intended delivery, exceeds 80 sections then the delivering tug must make alternate arrangements and shall notify MCTS of their intentions.
- 2) Harbour tugs shall inform MCTS of the number of sections being moved to/from the Navy Buoys. When sections are removed from the Navy Buoys it is the responsibility of the harbour tug removing those sections to ensure that the remaining sections are properly re-secured.
- 3) MCTS shall maintain a running inventory tally of the number of sections at the Navy Buoys. Burrard Towing, Seaspan and the Authority marine patrol staff shall visually inventory the number of sections on a regular basis and shall report that number to MCTS.
- 4) Tugs handling sections or boomsticks at Campbell Avenue shall maintain clear access to either the Authority's spoil ground or the Authority's Campbell Ave Floats at all times.



- 5) Vessels requesting a minimum wash for log handling shall pass that request to MCTS.
- 6) Boomsticks stored at the Navy Buoys must be properly secured at all times.

6.2.4 Suspension of Log Salvage Operations

In the event of a spill of logs or an escape of booms, the Authority may, by order in writing suspend log salvage activities by any ship in any area of the Port for a period of up to ten (10) days during which time the owner or his authorized agent shall recover the spilled logs or escaped booms.

During such period and within such areas as determined by the Authority, no person in charge of any ship, other than the owner of the logs or booms or his authorized agent, shall attempt to recover the spilled logs or escaped booms.

6.3 Recreational Vessels - Anchoring

6.3.1 Derelict, Abandoned, Illegally Moored or Anchored Vessels and Ships

6.3.1.1 Definitions

Vessel is any boat, watercraft, and barge, airboat, other than a seaplane on the water, used or capable of being used as a means of transportation on water

Derelict Vessel means any vessel that is left, stored or abandoned within the Authority's Navigable Waters in a wrecked, junked, or substantially dismantled condition. Any vessels left, sunk or moored or anchored at any location within the Authority's Navigable Waters without consent of the Authority and vessels left docked or grounded upon a property without the property owner's or the Authority's consent are also derelict vessels for the purposes of this definition. Note that this definition of derelict vessel may even include a vessel with an owner on board or a vessel that is in a seaworthy condition.

6.3.1.2 Application

The Authority has management and control of the Port, which may include the establishment of places of moorage within the port.

No vessel shall, except in an emergency, moor or anchor without approval and then only at such place and in such manner as directed.

Where the owner or person in charge of a vessel in a harbour is not available or refuses or neglects to obey any order to move the vessel, the Harbour Master's Office may, at the risk and expense of the owner of the vessel:



- take possession of and move the vessel;
- use any means and force reasonably necessary to move the vessel;
- order tugs to move the vessel; and
- berth, anchor, moor the vessel at any place satisfactory to the Authority.

Remove the vessel out the water and store it at any place satisfactory to the Authority.

6.3.1.3 Anchoring in Fraser River

6.3.1.3.1 General

There are no permanent designated anchorages within Fraser River Port. Anchoring is only at the discretion and authorization of the Harbour Master. Anchoring within Steveston Harbour is strictly prohibited (see No Anchoring Zone map below)

Should a vessel need to anchor within the bounds of the Port, the operator is to notify the Harbour Master's office (phone: 604.665.9086) of the mitigating circumstances, as well as the location and the duration of the anchorage, to ensure the safety of the vessel and other Port users.

The Harbour Master's office may not agree to the proposed anchorage and may direct the vessel to another location.

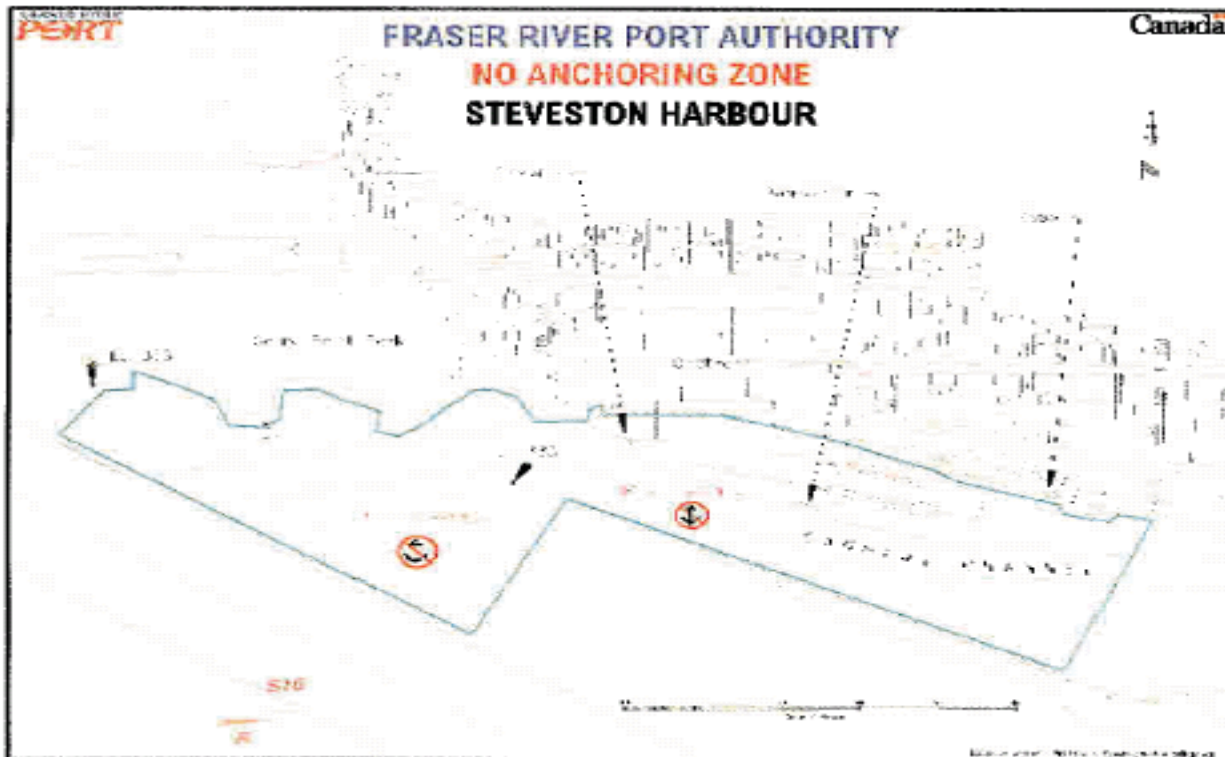
6.3.1.3.2 Anchoring in Sites Authorized by the Harbour Master's Office

Vessels moored or anchored at authorized locations are not to raft more than three vessels wide for either the purpose of moorage or the transferring of fish or other cargo.

While mooring or anchoring, vessels are to move as far off the navigable channel as is safe and practical. Vessel Masters are responsible for ensuring their vessels are anchored in sufficient water to ensure safety at all stages of the tide and in all weather conditions.

Anchored vessels are to display the appropriate day and night signals.

Figure 1: MAP of the NO ANCHORAGE ZONE STEVESTON HARBOUR



6.4 Small Craft

6.4.1 Small Craft

Including those under oars should keep well clear of all commercial vessels underway and not impede their passage. In addition, a vessel at anchor or berthed at a terminal may be expected to move without warning and a safe distance should be maintained. Particular attention must be paid to navigation in the high activity areas, i.e. Approaches to Coal Harbour, First Narrows, Second Narrows and Aircraft Operations Zones.

6.4.2 Reporting

Marine accidents, collisions, groundings, navigational hazards, deadheads, oil or similar pollution incidents should be reported at the first opportunity to Vancouver Marine Communications and Traffic Services Centre (MCTS).

6.4.2.1 Narrows

Tide and wind conditions may cause turbulent seas in both Narrows. Caution should be exercised. Only adequately powered craft may pass through either Narrows. No craft under sail or oars may transit either Narrows. One sail sheeted home is allowed for stability when



under power in First/Second Narrows. Otherwise sails should be lowered in the non-sailing areas indicated on the chart.

6.4.3 Harbour Master

All marine activities within the Port are under the jurisdiction of the Harbour Master. Permission must be obtained at least 48 hours in advance of holding any organized aquatic event such as a regatta, sail/power boat races, trials, etc. Please see 7.1 Marine Event.

6.4.4 Personal Watercraft

6.4.4.1 Definition

Personal Watercraft means a vessel of less than 5 metres in length which uses a motor powering a water jet pump, as its primary sources of power and which is designed to be operated by a person sitting, standing or kneeling on or being towed behind the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

6.4.4.2 Procedures

A personal watercraft is a boat and the Rules, Regulations, Laws and Traditions of Safe Boating legally bind you.

No person shall operate a personal watercraft in any area of the Harbour of Vancouver at night. Sunrise and Sunset are defined as the times published daily in the newspapers The Province and The Vancouver Sun.

Any person operating a personal watercraft shall have attached to his person, clothing, or personal flotation device, a lanyard-type engine cut-off switch.

No person shall operate a personal watercraft:

- In the area between a line drawn from Ferguson Point 000 degrees True North to the North Shore as the Western limit and a line drawn from Berry Point, 000 degrees True North to the North Shore as the Eastern limit;
- In a Traffic Separation Zone;
- At a speed of more than 5 knots;
- within 300 metres of a swimming area;
- within 300 metres of a launch ramp; or
- within 300 metres of a vessel at anchor.



Notwithstanding the above, use of personal watercraft in exhibitions, parades and other similar marine events will be allowed if the organizers of such an event have the written permission of the Authority for the use of personal watercraft. Such permission may only be granted after the Authority receives a written request giving a full description of the intended use and details of the event and organizers.

Any person operating a personal watercraft must operate the vessel in a safe and prudent manner, having regard for other waterborne traffic, posted speed and wake restrictions, and all other attendant circumstances so as not to endanger the life, limbs or property of any person.

6.4.5 Tugs

No vessel shall attempt to pass between a tug and its tow, nor close astern of the tow since many have a trailing floating line.

6.4.6 Aircraft

Aircraft on the water must comply with the Rules for Preventing Collisions at Sea. An aircraft traffic control tower is in operation at Granville Square to provide service to aircraft using the Burrard Inlet inner harbour and the Fraser River. The Aircraft Operations Zones marked on the chart are areas of high activity and operators of small craft are required to keep clear.

6.4.7 Fueling

Refueling of gasoline-powered vessels shall only be done at recognized fuelling stations with adherence to all posted safety procedures.

6.4.8 Speed Limits

Within False Creek, Bedwell Bay, Belcarra Bay, Deep Cove, Strathcona Park and Coal Harbour – a maximum speed of five knots is enforced.

Safe Speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

6.4.9 Restricting Navigation

The Authority may, from time to time, issue restrictions with respect to movement, location and speed of vessels or ships in order to maintain the safety of marine users and navigation.

The Authority may, where it considers it necessary, prohibit vessel or ship movements in any or all areas of the harbour for periods of time. This is particularly likely in periods of high water during freshet in the Fraser River.

Where a vessel or ship, including floating property, represents a danger, the Authority may order the owner or person in charge of the vessel or ship to remove that vessel or ship from the harbour or prohibit that vessel or ship from entering the harbour.

The owner or person in charge of a vessel or ship shall comply with any restriction or prohibition made by the Authority, failing which the Authority may take corrective action as is necessary to remedy the situation at the risk and expense of the owner of the vessel or ship.

6.4.10 Navigating in Patullo Bridge Area

Any vessel navigating the Fraser River between the quick flashing green light located on the downstream end of the Annieville pile wall and the quick flashing green light located on the Sapperton Dyke is to keep to the side of the channel that lies to the port side of the vessel.

6.4.11 Vessel Constrained by Draught – Fraser River

At the time of transiting the Fraser River's deep-sea shipping channel, or portion thereof, all vessels constrained by their draught and whose voyage has been set up for the inner shipping channel by the Pacific Pilotage Authority, may exhibit where they can best be seen, three (3) all-round red lights in a vertical line at night or a cylinder during the day in addition to the lights prescribed for power-driven vessels of its characteristics.

Section 7: Special Events

7.1 Marine Events

7.1.1 Holding a Marine Event in the Port

7.1.1.1 Statement

This Standing Order governs events held within the Port and is designed to facilitate the safe and orderly conduct of events.

For the purpose of this Standing Order a marine event includes but is not limited to the following:

Yacht or boat race	hang gliding or parascending
Water ski or personal water craft	Demonstration
Swim meet or race	Any sporting or
Sail past	Recreational event
Sub-aqua meet	Media productions

7.1.1.2 Procedures

The following procedures will be used for all marine events held within the Port including events held on property owned or administered by the Authority.

No person shall conduct or participate in a yacht or boat race or other aquatic sport, or in any other activity that is liable to interfere with navigation or operations in a harbour, except with written permission of the Authority, which permission may be either general or specific as to place and time.

The Authority shall incur no liability in respect of any injury or loss of life or loss of or damage to property resulting from any activity conducted on land or water managed, owned or administered by the Authority regardless whether or not the Authority has given permission for such activity.

Persons wishing to hold an event in the Port shall apply for and complete an "Application to hold a Marine Event in the Port" form. The form must be completed electronically on PGP. To be able to access the service you must register at: <http://www.pacificgatewayportal.com/pgpsite/appnon/registration/intro.aspx>. For more information contact Harbour Master's office at (604) 665-9086.

The completed form shall be forwarded to the Harbour Master for approval. Allow 5 working days for the application to be processed.

Organizers shall obtain the approval in writing of the Authority prior to the event.

If approval is given, the organizers shall abide by any requirements listed on the approved application form.

In all cases, the Authority will require that the organizers obtain Comprehensive General Liability insurance in an amount and coverage acceptable to the Authority. The Authority is to be named as co-insured.

7.2 Other Activities

The Authority or the Harbour Master's office must authorize the following activities:

- Conducting salvage operations
- Excavating or removing material
- Transshipping, loading, or unloading cargo outside of designated areas
- Placing or operating a light or day marker
- Placing, altering, removing, relocating or damage caused to an aid to navigation, buoy, float, marker or sign.
- Depositing or removing landfill or other material
- Causing an explosion, blasting or fireworks.

Any persons wishing to conduct any such activity must contact the Authority for authorization to proceed prior to commencement of the activity.

7.2.1 Diving Operations

All persons wishing to perform recreational or commercial diving in the Port must attain permission from the Harbour Master's Office. The only exception to this will be diving within the boundaries of dedicated Dive Sites. (I.e. the shores of Cates Park and Twin Islands).

The Harbour Master's Office may veto proposed diving operations where these conflict with the safe operations of the Port.

Appropriate buoys, flags and lights shall properly identify the dive site.

7.2.2 Military Vessels

Where possible no ship or vessel, including any pleasure yacht, vessel of a non-commercial activity, shall come within 100 metres of any military ship or vessel, whether Canadian or foreign, while moving in the Port.

Section 8: Emergencies

8.1 General

If a situation causes or is likely to cause death, bodily injury or any other emergency situation in a port damages or is likely to damage property or the environment, every person directly involved in the situation and, in the case of an activity conducted under a contract, lease, licence or authorization, the person authorized to conduct the activity shall

- 1) without delay, notify the Harbour Master's office at (604) 665-9086 or via E-mail at harbour_master@portvancouver.com that there is an emergency situation;
- 2) submit a detailed report of the emergency situation to the Harbour Master's office as soon as possible after it begins; and
- 3) at the request of the Harbour Master's office, submit with the report to the Authority a copy of each report of the emergency situation that the person makes to municipal, provincial and federal authorities.

8.2 Incidents / Accidents/ Pollution

A person who does anything in a port that results in an incident involving material loss or damage or an explosion, fire, accident, grounding, stranding or incident of pollution shall submit a detailed written report of the incident to the Harbour Master's office at (604) 665-9086 or via E-mail at harbour_master@portvancouver.com

8.3 Fire Protection

Every person in the Port shall follow the fire protection and prevention measures necessary for the safety of persons and property in the Port.

Section 9: Security

The International Maritime Organization (IMO) adopted the International Ship and Port Facility Security Code (ISPS Code) in December 2002, which meant that all IMO contracting governments, including Canada, were required to have adopted this Code and have necessary regulations in place by July 1, 2004. This was done successfully in Canada through the Marine Transportation Security Regulations, which brought into effect both the

mandatory ISPS Code Part A requirements as well as the majority voluntary Part B requirements.

The Vancouver Fraser Port Master Security Plan outlines the security polices for compliance within the VFPA jurisdiction. Each facility has a terminal specific approved security plan outlining their requirements for compliance with regulation.

9.1 Security Requirement for Vessels Entering the Port

Vessels entering the Port must declare their MARSEC level to MCTS 96 hours prior to arrival.

Security incidents must be immediately reported to the Port Security Officer and the Terminal Operator.

9.2 Port Security Officer

Graham Kee, Vice President Operations and Security is the Port Security Officer. The Port Security Officer can be contacted through the Harbour Masters Office at 604.665.9086.

9.3 Declaration of Security

The purpose of a Declaration of Security (DoS) is to ensure agreement is reached between the vessel and the port facility, or with other vessels with which it interfaces, in relation to security measures each must adopt according to the provisions of these security plans.

The Marine Facility Security Officer is responsible for ensuring a Declaration of Security is completed when a vessel is in port and interfaces with this facility.

9.3.1 Declaration of Security Requirements

The marine facility interfaces with a vessel and if there is an imbalance in security levels between the marine facility and the vessel, or;

The Vessel Security Officer or the Marine Facility Security Officer deems it necessary for specific security reasons, or;

There are specific activities identified with an interface (i.e., the movement of hazardous goods, dangerous cargo, etc.) which pose a higher than normal risk to persons, property or the environment, or;

If there is a change to the security level, for the vessel or the marine facility, while the vessel is in port a new or revised Declaration of Security is required, or;

There has been a definite security threat or a security incident involving the vessel or involving the marine facility, or;

Transport Canada declares it must be so.

9.3.2 Declaration of Security Completion

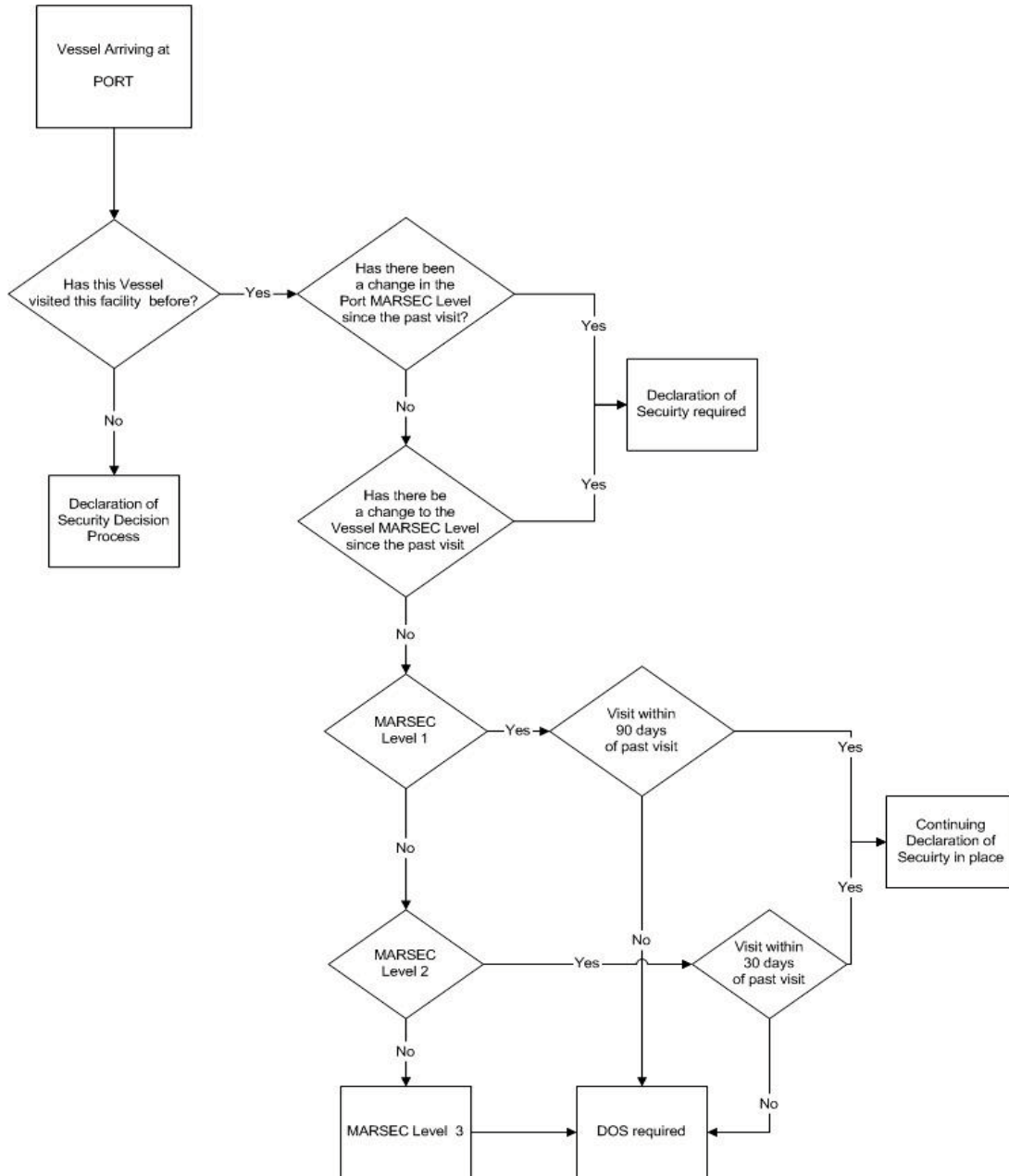
The DOS must be signed and dated by the Marine Facility Security Officer and the Vessel Security Officer or the Master, and must include the duration, relevant security level and the contact details once completed.

The Marine Facility Security Officer must implement a continuing Declaration of Security for a vessel, or offshore facility, with which the marine facility frequently interfaces for the period of:

- 90 days for MARSEC Level 1; and
- 30 days for MARSEC Level 2. ISPS part A s. 5.6. (contracting government)

If you have any questions regarding this requirement please contact the Harbour Master.

Figure 2: D.O.S Decision Flow Chart



Section 10: Miscellaneous

10.1 Bollards

10.1.1 Centerm

The only berth that may be used for bollard pushing/pulling is Centerm berth number 3.

The only bollards on Centerm 3 that may be used for pulling on are the five at the centre of the berth (i.e. the three most easterly ones). The three most westerly ones are not to be used. The central ones, which can be used, will be painted white, allowing for easier identification. These bollards are rated at 50 tonnes and must not be subjected to forces that exceed this limit.

Vessels may push on the berth face but only underneath one of the bollards described previously, i.e. the ones that will be painted white. There is no maximum limit to the thrust that can be exerted on the berth face while pushing. However, the Authority requires that it be restricted to the minimum time necessary and if possible to an hour or so either side of high water.

10.1.2 Deltaport

The use of the southernmost bollard to warp vessels on No.2 berth is restricted as follows:

- a) no more than 3" diameter mooring ropes are used to the bollard, and
- b) that the displacement of the vessel does not exceed 175 tonnes at the time of warping.

10.2 Vessel Constrained by their Draught

At the time of transiting the Fraser River's deep sea channel, or portion thereof, all vessels constrained by their draught (as defined under Rule 3(h) of the Collision Regulations under the Canada Shipping Act) and whose voyage has been set up for the inner shipping channel by the Pacific Pilotage Authority, may exhibit where they can best be seen, three (3) all-round red lights in a vertical line at night or a cylinder during the day in addition to the lights prescribed for power-driven vessels of its characteristics.

10.3 Automatic Identification System (AIS)

Every vessel equipped with an Automatic Identification System shall maintain AIS in operation at all times within VFPA's jurisdiction except where International or national agreements, rules or standards provide for the protection of navigational information; in

that case, the master or its representative shall report this action and the reason for doing so to the Harbour Master's office at (604) 665-9086 or via E-mail at harbour_master@portvancouver.com

10.4 Gangways

10.4.1 Cruise Gangway Terminal Procedures

Vessels are to remain securely made fast to the dock at all times the gangways are attached. No singling up for departure is to take place unless properly trained personnel are attending the gangway ready to disengage from the vessel.

Prior to the vessel moving off the berth, or making a close approach to the berth, the gangways are to be stowed as follows:

- a) Canada Place - gangways SAB's and CAB's folded, and gangway stowed against the building;
- b) Centerm - no part of the gangways to be closer than 20 feet to the dock face.

Prior to singling up, the vessel must release any safety lines or nets that may have been attached to the SAB.

10.4.2 Other Terminal Gangway Procedures

Vessels are to remain securely made fast to the dock at all time the gangways are attached. The gangways must be fastening safely and securely at all time in order to avoid any incident or damage to person or property.

10.4.3 Gangways During Bunkering Operations (Vessel to Vessel)

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

10.5 Ship's Garbage

Ship's garbage must be retained on board in suitable containers with properly fitted covers. Garbage removal services are available and must be used to prevent more than a minimum of accumulation of garbage on board prior to sailing.

Garbage, dunnage and scrap materials must not be dumped in Canadian Territorial Waters.

10.6 Procurement of Services

Where the Authority requires that a vessel or operation obtain the services of tugs, pilots, agencies, or other services, those services will be procured at the expense and risk of the vessel or operation.

10.7 Lifeboat Exercises and Ferrying

10.7.1 Lifeboat Exercises

The Harbour Master's Office is aware of the various national 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 Harbour Master's Office through MCTS of their intentions including start and finish time.

If Lifeboats are lowered into the water, cast off from the falls and exercise under oars or power, they may do so provided that they remain within 50m of their vessel. Vessels at Canada Place are to ensure their lifeboats remain well clear of seabus lanes and seaplane landing areas.

10.7.2 Ferrying

The preferred practice is to use locally procured water taxis. If ships boats are used to ferry crew to and from ships anchored in English Bay they must only land and embark persons at 'E' float in the fisheries Terminal on the south shore of False Creek east of Burrard Street Bridge. This is the only a Canada Customs (CBSA) approved landing place. Only vessels anchored in English Bay may use their own boats for ferrying.

Ship's crews must not land at private marinas or the Kitsilano Coast Guard Base.

Ship's boat engines must be fitted with an efficient muffler silencer system that complies with recognized noise control standards.