Notice of amendment: Port Information Guide

Notification date: December 1, 2023

Preamble

As the federal agency responsible for the shared stewardship of the Port of Vancouver, the Vancouver Fraser Port Authority (port authority) has developed practices and procedures applicable to all ships operating within defined areas to support the safe and efficient movement of trade. These practices and procedures are available in the *Port Information Guide*, in accordance with Section 56 of the *Canada Marine Act*.

Under Section 56 (1) of the *Canada Marine Act*, a Canada Port Authority may, for the purpose of promoting safe and efficient navigation or environmental protection of the waters of the port, with respect to ships or classes of ships,

a. monitor ships about to enter or within the waters of the port
b. establish the practices and procedures to be followed by ships
c. require ships to have the capacity to use specified radio frequencies
d. establish traffic control zones for the purposes of (a) to (c)

In accordance with the above section of the *Canada Marine Act*, the port authority is proposing amendments to the practices and procedures in the *Port Information Guide*. These practices and procedures are applicable to all ships operating within the port authority's jurisdiction. A ship, as defined by the *Canada Marine Act* and *Port Information Guide,* means every description of vessel, boat, or craft designed, used, or capable of being used solely or partly for marine navigation, whether self-propelled or not and without regard to the method of propulsion, and includes a seaplane and a raft or boom of logs or lumber.

Summary of proposed amendment

The port authority proposes the following amendments to the *Port Information Guide* to further promote safety and efficiency at the Port of Vancouver:

- The addition of new and refreshed definitions
- Introduction of LNG Bunker Accreditation Program
- Addition of the Terminal Data Sheet for the new VAFFC South Fraser Terminal
- Refresh the *"Assist tugs"* and *"Escort tugs"* terminology throughout the document to provide consistency and clarity
- Refresh the terminology used in "*TCZ-4 Pilotage Requirements."*
- Addition of Clear Transit Area Coordinates in "TCZ-4 Restrictions - Clear Transit Areas"
- Refresh the *Port Information Guide* with general updates not affecting intent or application

The proposed amendments are detailed in the table below as they appear in the *Port Information Guide*. The table is organized to include the relevant sections, current language (if applicable) and proposed new or revised language.

Proposed amendment

Section	Current language	Proposed language
Definition: Avadepth	N/A	Avadepth is a Canadian Coast Guard website designed to assist mariners with water levels, tidal current and latest depth sounding information for the Fraser River.
Definition: Escort Tug	N/A	Means a suitable tug, readily available, to apply emergency steering or braking forces to an attended vessel at speeds exceeding 6 knots in confined channels or similar restricted spaces.
Definition: Piloted Vessel	Means a vessel that is under the conduct of a Fraser River Pilot or an individual with a Pilotage Waiver in accordance with the Pacific Pilotage Authority Regulations.	Means a vessel that is under the conduct of a ~~Fraser River~~ Pilot or an individual with a Pilotage Waiver in accordance with the Pacific Pilotage Authority Regulations.
Definition: Assist Tug	N/A	Means a suitable tug, used in the act of berthing, unberthing or transiting of large vessels in confined waterways.
Definition: Tethered Tug	N/A	Means a suitable tug, that is connected (tethered) by a towline to the attended vessel for the purposes of escorting or vessel-assist duties.
7.8 Local Holidays	There are five nationwide and five provincial holidays in British Columbia plus Easter Monday and Boxing Day, both of which are bank holidays and commemorated by federal employees. The five nationwide holidays are New Year's Day (January 1), Good Friday (Friday before Easter Sunday), Canada Day (July 1), Labour Day (First Monday in September), and Christmas Day (December 25). The five provincial holidays are Family Day (2nd Monday in February), Victoria Day (Monday before May 25), British Columbia Day (Monday after the 1st Sunday of August), Thanksgiving (second Monday in October) and Remembrance Day (November 11).	There are ~~five~~ six nationwide and five provincial holidays in British Columbia plus Easter Monday and Boxing Day, both of which are bank holidays and commemorated by federal employees. The ~~five~~ six nationwide holidays are New Year's Day (January 1), Good Friday (Friday before Easter Sunday), Canada Day (July 1), Labour Day (First Monday in September), National Day for Truth and Reconciliation (September 30), and Christmas Day (December 25). The five provincial holidays are Family Day (2nd Monday in February), Victoria Day (Monday before May 25), British Columbia Day (Monday after the 1st Sunday of August), Thanksgiving (second Monday in October) and Remembrance Day (November 11).
8.17 TCZ-4 Restrictions c) Clear Transit Areas	Clear Transit Areas apply to tankers in product, LNG carriers and hampered vessels as designated by the port authority. These vessels must be unimpeded by any other vessel in the designated Clear Transit Areas, as illustrated in the image below.	Clear Transit Areas apply to tankers in product, LNG carriers and hampered vessels as designated by the port authority. These vessels must be unimpeded by any other vessel in the designated Clear Transit Areas, as illustrated in the image below.

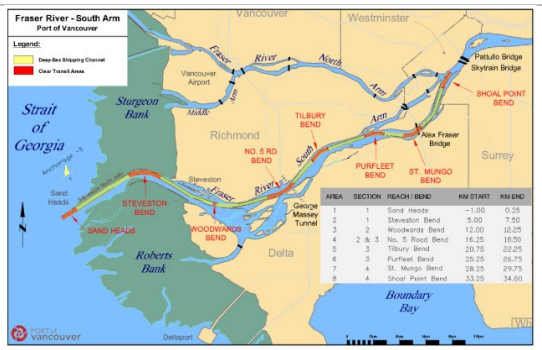


Image: TCZ-4 Clear Transit Areas

MCTS will declare a Clear Transit Areas notification on VHF Channels 16 and 74 by means of a Securite call at least 15 minutes in advance of a restricted vessel entering TCZ-4 to ensure unimpeded transit of such vessels, namely:

• All piloted tankers in product.
• All piloted LNG carriers, irrespective of cargo status.
• A vessel which for safety considerations requires Clear Transit Areas through TCZ-4 upon request of the Master or pilot.

Fraser River Pilots will repeat the notification that a Clear Transit Areas has been declared at standard MCTS call in points. Light tugs, other highly maneuverable small vessels and active dredgers may, on request, be granted a compliance exemption by MCTS, provided a ship-to-ship agreement has been reached with the vessel for which a Clear Transit Areas declaration has been issued. All other vessels must observe the Clear Transit Areas declaration for TCZ-4 and must not interfere in any way with the passage of a vessel for which the Clear Transit Areas have been declared. Vessels delayed in transit due to other traffic must remain clear of the affected areas until conditions are such that a transit can be safely executed.

Image 1: TCZ-4 Clear Transit Areas

Addition of table below:

FRASER RIVER - CLEAR TRANSIT AREAS - UTM NAD 83				
Sand Heads	**Northing**	**Easting**	**Lat**	**Long**
NW	5438654.2048	477066.3288	49° 6' 1.11"	-123° 18' 51.05"
SW	5438443.5592	477200.9708	49° 5' 54.31"	-123° 18' 44.36"
SE	5439111.0145	478256.6205	49° 6' 16.06"	-123° 17' 52.43"
NE	5439322.3189	478123.0189	49° 6' 22.88"	-123° 17' 59.06"
Steveston Bend	**Northing**	**Easting**	**Lat**	**Long**
SW	5441639.2355	482260.1111	49° 7' 38.39"	-123° 14' 35.37"
NW	5441862.8227	482148.2693	49° 7' 45.62"	-123° 14' 40.93"
NE	5441723.3784	484630.3591	49° 7' 41.35"	-123° 12' 38.43"
SE	5441513.0850	484501.5644	49° 7' 34.53"	-123° 12' 44.75"
Woodwards Bend	**Northing**	**Easting**	**Lat**	**Long**
SW	5439528.2317	488549.5973	49° 6' 30.57"	-123° 9' 24.8"
NW	5439720.7138	488603.9171	49° 6' 36.81"	-123° 9' 22.15"
NE	5439660.4792	488842.0396	49° 6' 34.87"	-123° 9' 10.39"
SE	5439465.8065	488796.1345	49° 6' 28.56"	-123° 9' 12.64"
No 5 Rd. Bend	**Northing**	**Easting**	**Lat**	**Long**
SW	5440018.5637	492752.2104	49° 6' 46.68"	-123° 5' 57.54"
NW	5440210.2581	492695.1730	49° 6' 52.88"	-123° 6' 0.36"
NE	5441239.9695	494565.4707	49° 7' 26.3"	-123° 4' 28.15"
SE	5441108.3427	494716.0509	49° 7' 22.04"	-123° 4' 20.71"
Tilbury Bend	**Northing**	**Easting**	**Lat**	**Long**
SW	5442802.3694	496196.8526	49° 8' 16.94"	-123° 3' 7.71"
NW	5442933.9963	496046.2723	49° 8' 21.2"	-123° 3' 15.14"
NE	5443867.0384	497247.5897	49° 8' 51.44"	-123° 2' 15.87"
SE	5443677.6079	497311.7474	49° 8' 45.3"	-123° 2' 12.7"
Purfleet Bend	**Northing**	**Easting**	**Lat**	**Long**
SW	5444639.9712	500153.2007	49° 9' 16.49"	-122° 59' 52.44"
NW	5444829.4014	500089.0431	49° 9' 22.62"	-122° 59' 55.6"
NE	5445008.8176	501593.3024	49° 9' 28.43"	-122° 58' 41.33"
SE	5444809.6454	501575.1254	49° 9' 21.98"	-122° 58' 42.23"
St. Mungo Bend	**Northing**	**Easting**	**Lat**	**Long**
SW	5444645.1609	503066.3478	49° 9' 16.63"	-122° 57' 28.61"
NW	5444900.6466	503089.6641	49° 9' 24.9"	-122° 57' 27.45"
NE	5445476.1363	504299.4155	49° 9' 43.51"	-122° 56' 27.7"
SE	5445321.4453	504445.2151	49° 9' 38.5"	-122° 56' 20.5"
Annieville Channel	**Northing**	**Easting**	**Lat**	**Long**
SW	5448361.0951	506119.6874	49° 11' 16.88"	-122° 54' 57.66"
NW	5448426.9011	505930.8235	49° 11' 19.02"	-122° 55' 6.98"
NE	5449625.6622	506603.7237	49° 11' 57.81"	-122° 54' 33.67"
SE	5449478.4988	506739.1597	49° 11' 53.04"	-122° 54' 26.98"

Image 2: TCZ-4 Clear Transit Area Coordinates

MCTS will declare a Clear Transit Areas notification on VHF Channels 16 and 74 by means of a Securite call at least 15 minutes in advance of a restricted vessel entering TCZ-4 to ensure unimpeded transit of such vessels, namely:

• All piloted tankers in product (including barges and articulated tugs and barges in product – ATBs)
• All piloted LNG carriers, irrespective of cargo status.
• A vessel which for safety considerations requires Clear Transit Areas through TCZ-4 upon request of the Master or pilot.

Fraser River Pilots will repeat the notification that a Clear Transit Areas has been declared at standard MCTS call in points. Light tugs, other highly maneuverable small vessels and

		active dredgers may, on request, be granted a compliance exemption by MCTS, provided a ship-to-ship agreement has been reached with the vessel for which a Clear Transit Areas declaration has been issued. All other vessels must observe the Clear Transit Areas declaration for TCZ-4 and must not interfere in any way with the passage of a vessel for which the Clear Transit Areas have been declared. Vessels delayed in transit due to other traffic must remain clear of the affected areas until conditions are such that a transit can be safely executed.
8.17 TCZ-4 Pilotage Requirements	Pilotage requirements within the port authority's jurisdiction are governed by the Pacific Pilotage Regulations, Section 9 (Ships Subject to Compulsory Pilotage) and 10 (Waiver of Compulsory Pilotage). In addition to the pilotage requirements established under Section 9 and Section 10 of the Pacific Pilotage Regulations, the following pilotage requirements apply to vessels operating in TCZ-4: • Tankers in product and LNG carriers, irrespective of cargo status, require two pilots for a TCZ-4 transit. Both pilots must remain on the bridge throughout the transit • All tug and barge combinations in product with aviation fuel must be piloted. • For the purposes of TCZ-4, piloted ATB's in product will be subject to the requirements of a tanker of equal size. • Non-piloted tug and barge combinations with a barge of 15,000 tonnes or more carrying capacity are restricted from transiting TCZ-4 without the prior approval of the port authority. • When a tethered escort tug is required for TCZ-4 transit, the vessel or agent is required to supply the Mooring and Towing Arrangement of a vessel with the Safe Working Load (SWL) of the fairleads to PPA dispatch when ordering a pilot. Refer to Pacific Pilotage Authority pilot ordering requirements.	Pilotage requirements within the port authority's jurisdiction are governed by the *Pacific Pilotage Regulations*, Section 9 (Ships Subject to Compulsory Pilotage) and 10 (Waiver of Compulsory Pilotage). In addition to the pilotage requirements, established under Section 9 and Section 10 of the Pacific Pilotage Regulations, the following pilotage requirements apply to vessels operating in TCZ-4: • Tankers in product (including barges and articulated tugs and barges – ATBs, in product), and LNG carriers, irrespective of cargo status, require two pilots for a TCZ-4 transit. Both pilots must remain on the bridge throughout the transit ~~• All tug and barge combinations in product with aviation fuel must be piloted.~~ ~~• For the purposes of TCZ-4, piloted ATB's in product will be subject to the requirements of a tanker of equal size.~~ • Non-piloted tug and barge combinations with a barge of 15,000 tonnes or more carrying capacity are restricted from transiting TCZ-4 without the prior approval of the port authority. • When a tethered escort tug is required for TCZ-4 transit, the vessel or agent is required to supply the mooring and towing arrangement of a vessel with the safe working load (SWL) of the fairleads to Pacific Pilotage Authority dispatch when ordering a pilot. Refer to Pacific Pilotage Authority pilot ordering requirements.
8.17 TCZ-4 Vessel Assist Tug Requirements	TCZ-4 VESSEL ASSIST TUG REQUIREMENTS Tier 1 vessels, when transiting TCZ-4, must comply with the following standards for tug requirements:	TCZ-4 VESSEL ASSIST AND ESCORT TUG REQUIREMENTS Tier 1 vessels, when transiting TCZ-4, must comply with the following standards for tug requirements:

	• All vessel assist tugs employed on piloted Tier 1 vessels transiting TCZ-4 must be tethered tractor/ASD tugs. • Vessel assist tugs must attend inbound vessels at least one nautical mile down river from the intended berth. • Vessel assist tugs must also attend inbound vessels having LOA >270m at least one nautical mile downriver from the Alex Fraser Bridge when actual or forecast winds of 25 knots, or greater, are being experienced or are expected. • Tankers in product require a minimum of two tugs that, when inbound must be tethered prior to commencement of transit of TCZ-4 and when outbound must remain tethered until clear of TCZ-4. • LNG Carriers require a minimum of three escort tugs that, when inbound must be tethered prior to commencement of transit of TCZ-4 and when outbound must remain tethered until clear of TCZ-4. • All tug and barge combinations in product with aviation fuel must require an additional tethered escort tug in addition to the pusher or towing tug. • Purpose built barges and bunker vessels carrying LNG must be assessed by the port authority, the Pacific Pilotage Authority and Fraser River Pilots for tug requirements on a case-by-case basis • Vessel assist tugs capable of generating more than 40 tonnes of bollard pull must have an operational tension meter that the tug operator can easily read from the conning position. Tankers and LNG carriers when transiting TCZ-4, must also comply with the standards for tug requirements outlined in Table 2: Fraser River South Arm TCZ-4 Tankers and LNG Carriers – Tug and Bollard Pull Requirements Matrix which summarizes the bollard pull requirements and the configuration of the tug package, reasonably spread between tug hulls, for such vessels. Highly maneuverable craft many be exempted from these requirements at the discretion of the port authority in consultation with PPA and FRP.	• All vessel assist or escort tugs employed on piloted Tier 1 vessels transiting TCZ-4 must be tractor/ASD tugs. In pilots' discretion, suitable alternative tug propulsion can be considered when assisting with berthing and unberthing operations of vessels. • Vessel assist tugs must attend inbound vessels at least one nautical mile down river from the intended berth • Vessel assist tugs must also attend inbound vessels having LOA >270m at least one nautical mile downriver from the Alex Fraser Bridge when actual or forecast winds of 25 knots, or greater, are being experienced or are expected • Deep-sea tankers in product require a minimum of two tethered escort tugs that, when inbound must be tethered prior to commencement of transit of TCZ-4 and when outbound must remain tethered until clear of TCZ-4 • All tug and barge combinations in product ~~with aviation fuel must~~ require an additional tethered escort tug in addition to the pusher or towing tug • LNG carriers require a minimum of three tethered escort tugs that, when inbound must be tethered prior to commencement of transit of TCZ-4 and when outbound must remain tethered until clear of TCZ-4 • Purpose built barges and bunker vessels carrying LNG must be assessed by the port authority, the Pacific Pilotage Authority and Fraser River Pilots for tug requirements on a case-by-case basis • Vessel assist or escort tugs capable of generating more than 40 tonnes of bollard pull must have an operational tension meter that the tug operator can easily read from the conning position Tankers and LNG carriers when transiting TCZ-4, must also comply with the standards for tug requirements outlined in Table 2: Fraser River South Arm TCZ-4 Tankers and LNG Carriers – Tug and Bollard Pull Requirements Matrix which summarizes the bollard pull requirements and the configuration of the tug package, reasonably spread between tug hulls, for such vessels. Highly maneuverable craft may be exempted from these requirements at the discretion of the port authority in consultation with Pacific Pilotage Authority and Fraser River Pilots.

Refresh the “Assist tugs” and “Escort tugs” terminology throughout the document to provide consistency and clarity.	LOAD VERIFICATION OF SHIPS’ BOLLARDS USED FOR TUG ESCORT OPERATIONS Ships’ bollards used for tethered tug escort operations in the Second Narrows Traffic Control Zone (TCZ-2) must be verified under load prior to transiting the TCZ-2 inbound. If the inbound ship requires a tethered tug escort though First Narrows, the load verification can be carried out in English Bay. For the purposes of the load verification, the escort tug must be rated for 65 tonnes bollard pull or higher, provided that the SWL of the bollard exceeds the forces that can be created by the tug. TCZ-1 PILOTAGE REQUIREMENTS Pilotage requirements within port authority jurisdiction are governed by the *Pacific Pilotage Regulations*, Section 9 (Ships Subject to Compulsory Pilotage) and 10 (Waiver of Compulsory Pilotage). In addition to the pilotage requirements established under Section 9 and Section 10 of the *Pacific Pilotage Regulations*, the following pilotage requirements apply to vessels operating in TCZ-1: • Tankers of 40,000 tonnes SDWT and above in product require two pilots for a TCZ-1 transit. Both pilots must remain on the bridge throughout the transit. • All other piloted vessels, including vessels shifting to or from a berth or anchorage east of the First Narrows Lions Gate Bridge, require one pilot. • When a tethered escort tug is required for a TCZ-1 transit, the vessel or agent is required to supply the Mooring and Towing Arrangement of the vessel with the Safe Working Load (SWL) of the fairleads to PPA dispatch when ordering a pilot. Refer also to Pacific Pilotage Authority pilot ordering requirements. TCZ-2 VISIBILITY RESTRICTIONS 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 TCZ-2 during periods of reduced visibility.	LOAD VERIFICATION OF SHIPS’ BOLLARDS USED FOR ~~TUG ESCORT~~ TETHERED TUG OPERATIONS Ships’ bollards used for tethered tug ~~escort~~ operations in the Second Narrows Traffic Control Zone (TCZ-2) must be verified under load prior to transiting the TCZ-2 inbound. If the inbound ship requires a tethered tug ~~escort~~ through First Narrows, the load verification can be carried out in English Bay. For the purposes of the load verification, the tethered tug ~~escort tug~~ must be rated for 65 tonnes bollard pull or higher, provided that the safe working load of the bollard exceeds the forces that can be created by the tug. TCZ-1 PILOTAGE REQUIREMENTS Pilotage requirements within port authority jurisdiction are governed by the *Pacific Pilotage Regulations*, Section 9 (Ships Subject to Compulsory Pilotage) and 10 (Waiver of Compulsory Pilotage). In addition to the pilotage requirements established under Section 9 and Section 10 of the *Pacific Pilotage Regulations*, the following pilotage requirements apply to vessels operating in TCZ-1: • Tankers of 40,000 tonnes summer deadweight (SDWT) and above in product require two pilots for a TCZ-1 transit. Both pilots must remain on the bridge throughout the transit • All other piloted vessels, including vessels shifting to or from a berth or anchorage east of the First Narrows Lions Gate Bridge, require one pilot • When a tethered ~~escort~~ tug is required for a TCZ-1 transit, the vessel or agent is required to supply the mooring and towing arrangement of the vessel with the safe working load (SWL) of the fairleads to Pacific Pilotage Authority dispatch when ordering a pilot. Refer also to Pacific Pilotage Authority pilot ordering requirements. TCZ-2 VISIBILITY RESTRICTIONS 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 TCZ-2 during periods of reduced visibility.

	The following vessels are subject to visibility restrictions: • All piloted vessels and tug and barge combinations when piloted, regardless of tonnage. • All non-piloted tug and barge combinations specifically designed for pushing and tractor tugs towing alongside with a barge of 10,000 tonnes or more carrying capacity. • All non-piloted vessels including barges and articulated tugs and barges (ATBs) when in product. When intending to transit TCZ-2, the above vessels and tug and barge combinations must observe the bridges clearly before reaching Terminal Dock when eastbound and before reaching Berry Point when westbound. The same requirement applies prior to departure from a terminal within TCZ-2 to make a TCZ-2 transit. Pusher tug-barge combinations or tractor tugs towing alongside of less than 10,000 tonnes carrying capacity, whether in product or in ballast, may only transit during conditions of restricted visibility subject to the following conditions: • An additional tug is employed to assist with the transit. • Each tug's shipboard navigation equipment includes a type approved and fully operational electronic chart display and radar. • The transit is restricted to a reduced TCZ-2 transit window limited to one knot current in either direction. The vessel operator must provide to the port authority in advance the relevant documentation, which demonstrates to the satisfaction of the port authority that adequate internal safety management systems are in place for a safe transit of TCZ-2 and the degree of local knowledge. Nothing in this section should be construed to require the master of a vessel to execute a transit in reduced visibility. Refer to Table 3: *Second Narrows TCZ (TCZ-2) Tugs and barges including ATBs when not piloted – Summary matrix.*	The following vessels are subject to visibility restrictions: • All piloted vessels and tug and barge combinations when piloted, regardless of tonnage • All non-piloted tug and barge combinations specifically designed for pushing and tractor tugs towing alongside a barge of 10,000 tonnes or more carrying capacity. • All non-piloted vessels including barges and articulated tugs and barges (ATBs) when in product. When intending to transit TCZ-2, the above vessels and tug and barge combinations must observe the bridges clearly before reaching Terminal Dock when eastbound and before reaching Berry Point when westbound. The same requirement applies prior to departure from a terminal within TCZ-2 to make a TCZ-2 transit. Pusher tug-barge combinations or tractor tugs towing alongside of less than 10,000 tonnes carrying capacity, whether in product or in ballast, may only transit during conditions of restricted visibility subject to the following conditions: • An additional assist tug is employed to assist with the transit • Each tug's shipboard navigation equipment includes a type approved and fully operational electronic chart display and radar • The transit is restricted to a reduced TCZ-2 transit window limited to one knot current in either direction. The vessel operator must provide to the port authority in advance the relevant documentation, which demonstrates to the satisfaction of the port authority that adequate internal safety management systems are in place for a safe transit of TCZ-2 and the degree of local knowledge. Nothing in this section should be construed to require the Master of a vessel to execute a transit in reduced visibility. Refer to Table 3: *Second Narrows TCZ (TCZ-2) Tugs and barges including ATBs when not piloted – Summary matrix.*
14.7 Bunkering and Fueling	Bunkering with Liquid Natural Gas (LNG): Vessels using liquid natural gas as a fuel must receive approval from Transport Canada. They must also comply with all operating practice and procedure	Bunkering with Liquid Natural Gas (LNG): Vessels using liquid natural gas as a fuel must receive approval from Transport Canada. They must also comply with all operating practice and procedure

	requirements that pertain to their specific vessel type and company, as established by Transport Canada. The port authority is a member of the Society for Gas as a Marine Fuel (SGMF) and recognizes the recommended competence guidelines for the supply and bunkering of LNG for marine vessels. Vessels transferring LNG ship-to-ship, shore-to-ship or truck-to-ship must use a recognized bunkering checklist. Included in this guide, Appendix E LNG Bunker Checklist, is an example of a recognized bunkering checklist for ship-to-ship transfers. Recognized checklists for ship-to-ship, shore-to-ship and truck-to-ship can also be found online. After bunkering is completed, a recognized LNG bunkering checklist must be kept on file for at least one year and a copy must be emailed to the Operations Center at harbour_master@portvancouver.com. Any incidents involving LNG used as a fuel on a vessel must be reported to the Operations Centre at 604.665.9086 or harbour_master@portvancouver.com.	requirements pertaining to their specific vessel type and company, as established by Transport Canada. The port authority is a member of the ~~Society for Gas as a Marine Fuel (SGMF)~~ International Association of Port and Harbors (IAPH) and recognizes the recommended competence guidelines for the supply and bunkering of LNG for marine vessels. Vessels transferring LNG ~~ship-to-ship, shore-to-ship or truck-to-ship~~ must use a recognized bunkering checklist. Included in this guide, ~~Appendix E LNG Bunker Checklist~~ Appendix E – LNG Bunker Checklist, Service Provider & Location Authorization Table, is an example of a recognized bunkering checklist for ship-to-ship transfers. Recognized checklists for ship-to-ship and shore-to-ship ~~and truck-to-ship~~ can also be found online. In addition to these requirements, companies supplying LNG to vessels calling the Port of Vancouver are required to register with the port authority. LNG bunker suppliers must participate in an annual accreditation program designed for LNG operations. Only registered LNG bunker suppliers who participate in the annual accreditation program are authorized to conduct LNG bunkering operations within the port. Please contact the port authority's Operations Centre for further guidance and specific LNG bunkering details. After bunkering is completed, a recognized LNG bunkering checklist must be kept on file for at least one year and a copy must be emailed to the Operations Center at harbour_master@portvancouver.com. Any incidents involving LNG used as a fuel on a vessel must be reported to the Operations Centre at 604.665.9086 or harbour_master@portvancouver.com.

Appendix E – LNG Bunker Checklist, Service Provider and Location Authorization Table

LNG BUNKER CHECKLIST

Part A: Planned Operations Checks

This part of the checklist should be completed by the LNG bunker provider and receiver independently within 48 h in advance of a planned LNG bunker operation.

Planned date and time ----------

LNG receiving vessel ----------

Port and Berth or location ----------

LNG bunker vessel ----------

	Check	Receiving vessel	Bunker vessel	Bunker terminal	Remarks
1	Emergency fire plans are located externally				Location:
2	International shore connection available				Location:
3	Firefighting equipment available for use				
4	Gas detection equipment tested, calibrated and available for use				
5	Personnel protective equipment available for use				
6	Water spray system available for use				
7	Spill containment and hull protection system in place				
8	LNG transfer pumps and/or equipment in working order				
9	Remote control valves tested and in working order				
10	LNG tank pressure control equipment in working order				
11	Instrumentation, control, shutdown and safety devices in working order				
12	Bunker plans, operations manual and emergency procedures are available				

	Check	Receiving vessel	Bunker vessel	Bunker terminal	Remarks
13	Personnel have required training and are instructed in the use of the equipment and procedures				
14	Bunker provider list of local Port State Control (PSC) restrictions or notifications required as a condition of the planned bunkering operation (i.e. wind speed less than 25 knots):				
	a. _____ b. _____ c. _____ d. _____				

DECLARATION

The undersigned as applicable have checked the above items in Part A and are satisfied that the entries made are correct.

Receiving vessel	Bunker vessel	Bunker terminal
Name:	Name:	Name:
Position:	Position:	Position:
Signature:	Signature:	Signature:
Date:	Date:	Date:
Time:	Time:	Time:

Instructions for completing this checklist

This independent declaration should be signed only by the applicable party. Once signed, copies of this document shall be kept onboard the LNG receiving vessel and the bunker vessel or terminal (as appropriate) for at least 1 year.

Addition of table below:

Proposed LNG Service Provider and Location Authorization Table

Bunker Operator	English Bay	Inner Harbour	Indian Arm	Termain A	Terminal B
Company A	√	√	×	√	×
Company B	×	√	√	×	×
CompanyC	×	×	√	×	×
CompanyD	×	×	√	√	×

~~Removal of SGMF LNG Bunker Checklist displayed on the table to the left.~~

Addition of new IAPH LNG Bunker Checklist

LNG BUNKER CHECKLIST

Part B: Pre-Operational Checks

This part of the checklist should be completed jointly by all appropriate parties, including any terminal where vessel to vessel bunkering occurs, immediately before the start of transfer operations.

Planned date and time

LNG receiving vessel

Port and Berth or location

LNG bunker vessel

	Check	Receiving vessel	Bunker vessel	Terminal	Code	Remarks
1	Part A has been completed and conditions noted have not changed				A	
2	Permission (if applicable) for LNG bunkering received and notifications made	[redacted]			P	
3	Present weather and wave conditions are within agreed limits				A, R	
4	Vessels are securely moored with sufficient fendering				R	
5	There is a safe means of access between the vessels				R	
6	The LNG bunker manifold is sufficiently illuminated				A, R	
7	The vessels are able to move under their own power in a safe and unobstructed direction				R	
8	Adequate supervision by responsible individuals is in place				R	
9	The method of electrical insulation has been agreed upon				A	
10	The controlled area designated, marked and free of unauthorized personnel				A, R	Location:
11	Control of ignition sources in controlled area implemented				A, R	
12	Material safety data sheets (MSDS) for LNG available				A	
13	External doors, portholes and accommodation ventilation inlets closed				A	

	Check	Receiving vessel	Bunker vessel	Terminal	Code	Remarks
14	An effective means of communication has been tested and language for communication agreed upon				A	Language that will be used: Primary system: Backup system: VHF/UHF Channel:
15	Emergency procedures reviewed and emergency shutdown systems (ESD) tested. Closing times for ESD's exchanged				A	Emergency stop signal: Provider ESD: _____ s Receiver ESD: _____ s
16	Procedures for prevention of falling object in place				A	
17	An effective deck watch has been established to monitor mooring			[redacted]	R	
18	An effective LNG bunker oversight has been established to monitor piping and controls				R	
19	Personnel working in the vicinity of the LNG bunker manifold are using appropriate personnel protective equipment				R	
20	Dry-break couplings installed on LNG bunker connections are in working order				A	
21	Bunker connections are adequately supported, properly connected and leak tested. Unused connections are closed, blanked and fully bolted				A	
22	Procedures for purging, cool down and LNG transfer operations have been agreed by the receiving vessel and provider				A	
23	Part C has been completed				A	
24	The receiving vessel confirms that LNG bunker operations can commence		[redacted]	[redacted]	P	Time notified: _____ h

DECLARATION

The undersigned as applicable have checked the above items in Part B and are satisfied that the entries made are correct.

Receiving vessel	Bunker vessel	Bunker terminal
Name:	Name:	Name:
Position:	Position:	Position:
Signature:	Signature:	Signature:
Date:	Date:	Date:
Time:	Time:	Time:

Instructions for completing this checklist

The "codes" indicate the following:

a) A (Agreement): indicating an agreement or procedure that may be detailed in the "Remarks" column;

b) R (Re-check): indicating that the item will be periodically reconfirmed at intervals agreeable to the parties;

c) P (Permission): indicating that permission has been granted by the appropriate authorities.

This joint declaration should be signed only when both parties have checked and accepted their assigned responsibilities. Once signed, copies of this document shall be kept onboard the LNG receiving vessel and the bunker vessel or terminal (as appropriate) for at least 1 year.

LNG BUNKER CHECKLIST

Part C: LNG Transfer

This part of the checklist should be completed immediately before the start of transfer operations by the LNG bunker provider and receiver.

Planned date and time ---

LNG receiving vessel ---

Port and Berth or location ---

LNG bunker vessel ---

AGREED STARTING TEMPERATURES AND PRESSURES

Note the agreed physical quantity unit (PQU): m^3 Tonnes _____

	Receiving vessel		Provider		Units[a]
	Tank 1	Tank 2	Tank 1	Tank 2	
LNG tank start temperature					°C/°F
LNG tank start pressure					bar/psi/MPa (absolute)
Available LNG tank capacity			[redacted]	[redacted]	PQU

[a] Delete as appropriate.

AGREED BUNKER OPERATIONS

	Receiving vessel		Units[a]
	Tank 1	Tank 2	
Agreed quantity to be transferred			PQU
LNG tanks start pressure			bar/psi/MPa (absolute)
Start pressure at manifold			bar/psi/MPa (gauge)
Starting flow rate			PQU per hour
Maximum transfer flow rate			PQU per hour
Topping off flow rate			PQU per hour
Maximum pressure at manifold			bar/psi/MPa (gauge)

[a] Delete as appropriate.

AGREED MAXIMUM AND MINIMUM BUNKERING PARAMETERS

Receiving vessel	Maximum	Minimum	Units[a]
LNG bunker tank pressure			bar/psi/MPa (absolute)
LNG temperature			°C/°F
Filling limit of LNG bunker tanks			%

[a] Delete as appropriate.

AGREED SIMOPS LNG BUNKER/OIL BUNKER/CARGO OPERATIONS[1)]

Activity	Receiving vessel	Bunker vessel	Bunker terminal

RESTRICTION ON AGREED DEVIATION IN LNG BUNKER OPERATIONS[2)]

Activity	Receiving vessel	Bunker vessel	Bunker terminal	Mitigation measures

DECLARATION

The undersigned as applicable have checked the above items in Part C and are satisfied that the entries made are correct. We have arranged for the repetitive checks, noted as code "R" in Part B, to be re-checked at intervals not exceeding ___ min. If, to our knowledge, the status of any item changes, we will immediately inform the other party.

Receiving vessel	Bunker vessel	Bunker terminal
Name:	Name:	Name:
Position:	Position:	Position:
Signature:	Signature:	Signature:
Date:	Date:	Date:
Time:	Time:	Time:

Instructions for completing this checklist

This joint declaration should be signed only when both parties have agreed on the information. Once signed, copies of this document shall be kept onboard the LNG receiving vessel and the bunker vessel or terminal (as appropriate) for at least 1 year.

LNG BUNKER CHECKLIST

PART D: SIMOPS

This part of the checklist should be completed by all appropriate parties, including terminals where vessel to vessel bunkering takes place, immediately before starting the transfer.

Planned date and time ---------- **LNG receiving vessel** ----------

Port and Berth or location ---------- **LNG bunker vessel** ----------

	Check	Receiving vessel	Bunker vessel	Terminal	Code	Remarks
1	LNG bunkering simultaneously with other fuels is in accordance with the vessel's fuel handing manual				A	
2	LNG bunkering simultaneously with cargo operations is in accordance with terminal procedures				A	
3	Competent authorities have granted permission (if applicable) for simultaneous operations				P	
4	Safety measures are agreed upon and observed				A, R	

DECLARATION

The undersigned as applicable have checked the above items in Part D and are satisfied that the entries made are correct.

Receiving vessel	Bunker vessel	Bunker terminal
Name:	Name:	Name:
Position:	Position:	Position:
Signature:	Signature:	Signature:
Date:	Date:	Date:
Time:	Time:	Time:

Instructions for completing this checklist

The "codes" indicate the following:

a) A (Agreement): indicating an agreement or procedure that may be detailed in the "Remarks" column;

b) R (Re-check): indicating that the item will be periodically reconfirmed at intervals agreeable to the parties;

c) P (Permission): indicating that permission has been granted by the appropriate authorities.

LNG BUNKER CHECKLIST

Part E: Post-Transfer Checklist

This part of the checklist should be completed jointly by the bunker provider and receiver at the completion of transfer operations.

Planned date and time ---------- **LNG receiving vessel** ----------

Port and Berth or location ---------- **LNG bunker vessel** ----------

	Check	Receiving vessel	Bunker vessel	Bunker terminal	Remarks
1	Manifold valves are closed and ready for disconnection				
2	LNG bunkering lines have been warmed-up, purged and ready for disconnection				
3	Controlled area has been deactivated and vessels in the vicinity notified				
4	The receiving vessel has been notified that LNG bunkering is complete				Time notified: _____ h.
5	Near missies and incidents reported to competent authorities				Report number:

RECORD OF PERIODIC CHECKS

A record of periodic re-check of conditions as agreed in Parts B and D. Observations should be noted under "Remarks".

Date	Time	Receiving vessel	Bunker vessel	Bunker terminal	Remarks

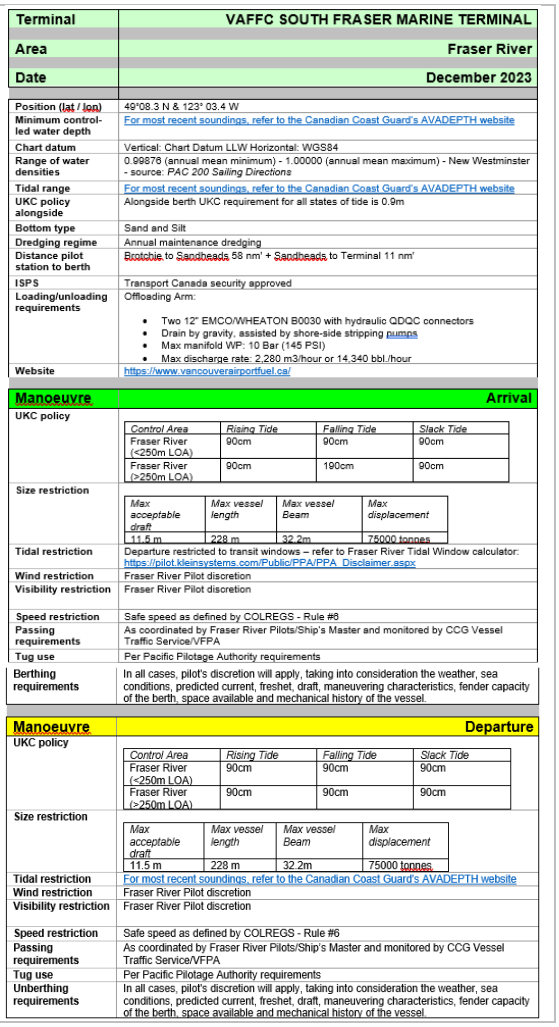
DECLARATION

The undersigned as applicable have checked the above items in Part E and are satisfied that the entries made are correct.

Receiving vessel	Bunker vessel	Bunker terminal
Name:	Name:	Name:
Position:	Position:	Position:
Signature:	Signature:	Signature:
Date:	Date:	Date:
Time:	Time:	Time:

Instructions for completing this checklist

This joint declaration should be signed only when both parties have agreed on the information. Once signed, copies of this document shall be kept onboard the LNG receiving vessel and the bunker vessel or terminal (as appropriate) for at least 1 year.

VAFFC South Fraser Marine - Terminal Data Sheet	N/A	

Terminal	VAFFC SOUTH FRASER MARINE TERMINAL
Area	Fraser River
Date	December 2023
Position (lat / lon)	49°08.3 N & 123° 03.4 W
Minimum control-led water depth	For most recent soundings, refer to the Canadian Coast Guard's AVADEPTH website
Chart datum	Vertical: Chart Datum LLW Horizontal: WGS84
Range of water densities	0.99876 (annual mean minimum) - 1.00000 (annual mean maximum) - New Westminster - source: *PAC 200 Sailing Directions*
Tidal range	For most recent soundings, refer to the Canadian Coast Guard's AVADEPTH website
UKC policy alongside	Alongside berth UKC requirement for all states of tide is 0.9m
Bottom type	Sand and Silt
Dredging regime	Annual maintenance dredging
Distance pilot station to berth	Brotchie to Sandheads 58 nm' + Sandheads to Terminal 11 nm'
ISPS	Transport Canada security approved
Loading/unloading requirements	Offloading Arm: • Two 12" EMCO/WHEATON B0030 with hydraulic QDQC connectors • Drain by gravity, assisted by shore-side stripping pumps • Max manifold WP: 10 Bar (145 PSI) • Max discharge rate: 2,280 m3/hour or 14,340 bbl./hour
Website	https://www.vancouverairportfuel.ca/

Manoeuvre — Arrival

UKC policy

Control Area	*Rising Tide*	*Falling Tide*	*Slack Tide*
Fraser River (<250m LOA)	90cm	90cm	90cm
Fraser River (>250m LOA)	90cm	190cm	90cm

Size restriction

Max acceptable draft	*Max vessel length*	*Max vessel Beam*	*Max displacement*
11.5 m	228 m	32.2m	75000 tonnes

Tidal restriction	Departure restricted to transit windows – refer to Fraser River Tidal Window calculator: https://pilot.kleinsystems.com/Public/PPA/PPA_Disclaimer.aspx
Wind restriction	Fraser River Pilot discretion
Visibility restriction	Fraser River Pilot discretion
Speed restriction	Safe speed as defined by COLREGS - Rule #6
Passing requirements	As coordinated by Fraser River Pilots/Ship's Master and monitored by CCG Vessel Traffic Service/VFPA
Tug use	Per Pacific Pilotage Authority requirements
Berthing requirements	In all cases, pilot's discretion will apply, taking into consideration the weather, sea conditions, predicted current, freshet, draft, maneuvering characteristics, fender capacity of the berth, space available and mechanical history of the vessel.

Manoeuvre — Departure

UKC policy

Control Area	*Rising Tide*	*Falling Tide*	*Slack Tide*
Fraser River (<250m LOA)	90cm	90cm	90cm
Fraser River (>250m LOA)	90cm	90cm	90cm

Size restriction

Max acceptable draft	*Max vessel length*	*Max vessel Beam*	*Max displacement*
11.5 m	228 m	32.2m	75000 tonnes

Tidal restriction	For most recent soundings, refer to the Canadian Coast Guard's AVADEPTH website
Wind restriction	Fraser River Pilot discretion
Visibility restriction	Fraser River Pilot discretion
Speed restriction	Safe speed as defined by COLREGS - Rule #6
Passing requirements	As coordinated by Fraser River Pilots/Ship's Master and monitored by CCG Vessel Traffic Service/VFPA
Tug use	Per Pacific Pilotage Authority requirements
Unberthing requirements	In all cases, pilot's discretion will apply, taking into consideration the weather, sea conditions, predicted current, freshet, draft, maneuvering characteristics, fender capacity of the berth, space available and mechanical history of the vessel.

Comments and questions

To accommodate the upcoming seasonal holidays, this notice period will be extended by a 15-day period and posted publicly for a **45-day** period to notify industry, stakeholders, and the public of the intended amendments to the practices and procedures in the *Port Information Guide*.

Anyone affected by these amendments may comment in writing by **January 15, 2024** to the attention of the marine operations specialist at portinfoguide@portvancouver.com.

All comments received will be taken into consideration before the proposed amendments are implemented.