MONTREAL REFINERY

INFORMATION TO VESSELS

Current versions of approved documents are maintained online. Printed copies are uncontrolled



IMPORTANT

- Smoking is <u>strictly prohibited</u> outside designated smoking areas!
- Cargo operations require at least one qualified person to be stationed on deck during loading or discharge!
- In case of an oil spill or other emergency, cargo operations must be stopped immediately and the terminal control room and Voyage Order contact must be informed.
- In case of any situation or incident that could possibly have an impact on health and/or environmental conditions, the terminal control room should be informed immediately on the emergency telephone number:

514 640 8177

or by the portable radio. Voyage Order contact should also be informed.

For more information
Suncor Marine Department
2489 North Sheridan Way, Mississauga
Ontario, Canada L5K 1A8
(905) 804-4500

marineop@suncor.com

http://www.suncor.com/marine

Version:

| Date | Revision | Updated by |
|---------------|----------|-------------------|
| June 1999 | - | - |
| November 2014 | 1 | Marine Operations |
| April 2015 | 2 | Marine Operations |
| January 2016 | 3 | Marine Operations |
| August 2016 | 4 | Marine Operations |
| | | |
| | | |

TABLE OF CONTENTS

| 1 | General Information | . 7 |
|---|---|-----|
| | 1.1. Location | . 7 |
| | 1.2. Berth Description | . 7 |
| | 1.3. Water Depth | . 8 |
| | 1.4. Services at the berth | . 9 |
| | 1.5. Security | |
| | 1.5.1 Access to and from the vessel | . 9 |
| | 1.5.2 Access to the Terminal | 10 |
| | 1.5.2.1 General | 10 |
| | 1.5.2.2 Crew | 10 |
| | 1.6 Weather | 10 |
| | 1.7 River Current | 11 |
| 2 | Communications | 13 |
| | 2.1 Estimated time of arrival (ETA) | 13 |
| | 2.2 Useful local numbers | 13 |
| 3 | Berthing and Mooring | 15 |
| | 3.1 Vessel size and restrictions - berth 110 EAST | 15 |
| | 3.2 Vessel size restrictions - berth 109 | 15 |
| | 3.3 Spot Approval | 16 |
| | 3.4 Mooring Criteria | 16 |
| | 3.5 Berthing Information | 16 |
| | 3.6 Berthing Manoeuvres | 16 |
| | 3.7 Tug Assist | 17 |
| | 3.8 Linesmen | 17 |
| | 3.9 Environmental Limits | 18 |
| 4 | Rules and Regulations | 20 |
| | 4.1 General federal government requirements | 20 |
| | 4.2 Special 'ice navigation' requirements | 20 |
| | 4.3 Port of Montreal regulations | 20 |
| | 4.4 Suncor Montreal EAST Terminal rules and procedure | 20 |
| 5 | Cargo and Ballast transfer | 30 |
| | 5.1 Terminal Manifolds | |
| | 5.2 Vessel Manifolds | 31 |
| | | |

| | 5.3 Terminal Ballast Receiving Capacity | . 31 |
|----|--|------|
| | 5.4 Pumping Distance | . 31 |
| | 5.5 Cargo and Ballast Operating Procedures | |
| | 5.6 Environmental Limits - Cargo Operations | . 32 |
| 6 | Emergency Response to Fires, Spills, leaks, etc | . 34 |
| | 6.1 Fires | . 34 |
| | 6.1.1 Actions in the Event of Fire at Terminal | . 34 |
| | 6.1.2 Action in Event of Fire on Board a Vessel | . 34 |
| | 6.2 Spills or Leaks | . 35 |
| | 6.2.1 Terminal Spills or Leaks | . 35 |
| | 6.2.2 Vessel Spill or Leaks | . 35 |
| | 6.3 Restarting Transfer Operations after a Marine Pollution Incident | . 35 |
| 7 | Appendix 1A | . 36 |
| 8 | Appendix 1B | . 37 |
| 9 | Appendix 1C | . 38 |
| 10 | Appendix 1D | . 39 |
| 11 | Appendix 2 - Vessel Shore Safety Checklist (isgott 26.3.3) | . 40 |
| 12 | Appendix 3 - Cargo ballast transfer planning | . 48 |
| 13 | Appendix 4 - Safety Letter | . 49 |

GENERAL INFORMATION



1 GENERAL INFORMATION

1.1. LOCATION

The facility is shown on Canadian Hydrographic Service Chart number 1310 - Port de Montreal in latitude 45° 37.8′ north, longitude 73° 29.5′ west



1.2. BERTH DESCRIPTION

- The wharf is designed primarily to load and discharge vessels containing crude oil, petroleum products and petro chemicals.
- The dock face lies approximately 035° 215° in close alignment to the navigation channel which runs 025° 205° in the approaches to and off the berth. The docks breasting length is 278 metres and the overall length, including a mooring dolphin situated off the south west end of the dock, is 345 metres.
- The facility is divided into two berths, namely Berth 109 and Berth 110 East (There is a

short inside berth, 110 West, which is not used for bulk oil or chemical transfers). Each of the two berths is fitted with hard arm transfer manifolds. The location of the shore manifolds and vessels bow to centre of manifold and stern to centre of manifold dimensions are key factors in determining if vessel shall fit to berth or not (See Section 3).

- Two vessels can be moored alongside the facility together. i.e. one at 109 and the other
 at 110 East. This is subject to an assessment of the two vessels dimensions, other criteria,
 and requires approval by Suncor Marine Department.
- Vessels are berthed starboard side to. (i.e. bow to the river current).
- There is no shore gangway and vessels must arrive at the facility with the vessels gangway ready to be deployed. The elevation of the dock is approximately 5.8 metres above the river level at chart datum.

1.3. WATER DEPTH

- The depth of water is published by the Port of Montreal which can be found on below link http://www.port-montreal.com/pmgeo/navires.do?action=getmap&mapname=installations&lang=en
- At a minimum, the vessel must follow their company ISM policies for under keel clearances and be guided by Canadian Coast Guard regulations. Masters are advised to be in full compliance with their ISM guidelines reference to net under keel clearance when alongside the terminal. Copies of the Coastguard regulations can be obtained from the vessels agents.
- Montreal is a fresh water, non-tidal port. Water levels do vary and are subject to climatic
 conditions such as long periods of sustained precipitation, periods of drought and the
 thawing of accumulated snow and ice in the spring.
- The Canadian Hydrographic Service (http://www.charts.gc.ca/index-eng.asp) provides mariners with continuous, real-time information on water levels at various locations in Montreal Harbour. Statistical data is also maintained to assist in forecasting water levels and aid mariners in voyage planning.
- Suncor advises all Masters, Owners, Operators, Brokers etc. involved in shipments to, from or within the Port de Montreal to secure information on water levels in advance of the vessel's actual dates of the vessels visit. The operation centre of the Port of Montreal interfaces with the Canadian Hydrographic Service, and is an alternative contact point for water level information (See Section 2, Communications).

1.4. SERVICES AT THE BERTH

• Bunkers: No pipeline supply

Bunkers are not available directly from the refinery. Bunkers are available in the Port of Montreal by marine delivery and truck delivery. Suncor can arrange for supply of Suncor Marine Fuels via the order desk *514-640-8341* or *514-640-8393*. No marine fuelling barge is allowed to come alongside a vessel at the facility if the vessel is engaged in cargo or ballast transfer operations (*See Section 4, Rules and Regulations*).

• Fresh Water: Available by meter.

Garbage Disposal: Only available through private contractors Garbage from the vessel cannot be placed on the dock or otherwise accepted into Suncor's facility. Third party contractors can provide this service directly for the vessel, usually by barge at a location other than at Suncor berths.

• Slop Removal: Only available through private contractors.

Engine bilge or other non-cargo slops are not accepted by the refinery. Cargo slops may be accepted into the refinery subject to prior approval and may be required to be analysed for content. Slops, if due to their content are not accepted by the refinery, must be removed directly from the vessel by a third party waste disposal contractor at a location other than at Suncor berths.

1.5. SECURITY

1.5.1 Access to and from the vessel

Access to and from the vessel is controlled by a gate. Masters should advise the refinery operations centre of persons who are approved to visit the vessel.

Port Facility Security Officer (PFSO)

| Name | Numbers |
|----------------|--------------------------|
| Patrick Campey | +1-514-640-3918 (office) |
| E-mail | pcampey@suncor.com |
| Cell | +1-514-821-2859 |
| Steve Richard | +1-514-650-4091 (office) |
| Email | strichard@suncor.com |
| Cell | +1-514-772-2754 |

The terminal is compliant with the requirements of the International Code for the Security of Vessels and of Port Facilities and the relevant amendments to Chapter XI of SOLAS (ISPS Code). It is mandatory that all vessels comply with the referenced ISPS code. A compliant declaration of Security (DoS) will be issued between vessels and shore for each call to the marine facility.

1.5.2 Access to the Terminal

1.5.2.1 General

Anyone who has been granted access to the premises has to proceed to and from the vessel via the shortest route possible, using only the main road between the gate and the jetty.

1.5.2.2 Crew

Crew that are mentioned on the crew list have permission to leave and re-enter the terminal. They must carry identity papers to enable the security guard to check their identity versus the crew list.

1.5.2.3 Vessel chandlers and other visitors to the vessel

Access to the premises is only allowed to visitors mentioned on the visitor list, issued by the agent or after approval by the vessel's master. All visitors have to identify themselves at the gate by means of a passport or driving licence. Government officials, in their official capacity, will be granted access upon presentation of their official ID-card.

Furthermore, anyone carrying goods that are to be delivered on board a vessel must present documents (i.e. a waybill, packing list etc.) covering the carriage of such goods to security guards before entry is granted.

1.5.2.4 Unaccompanied Luggage

Depending on the security level, Suncor reserves the right to refuse unaccompanied luggage at the gate. Alternatively, when unaccompanied luggage is presented at the gate, Suncor may invite the vessels security officer to personally take receipt of this luggage on behalf of its rightful owner.

1.6 WEATHER

- Masters are referred to Canadian Hydrographic Service Publication ATL 112 "Sailing Directions St. Lawrence River, Cap-Rouge Montreal" which contains, in its appendices, detailed weather information for the Port of Montreal.
- In general terms, the average temperature is below freezing for December through March requiring Masters to plan ahead and ensure that the deck crew has adequate

warm clothing, foot wear, personal protective gear, and that deck machinery is maintained and in operable condition.

1.7 RIVER CURRENT

• Currents are indicated on the Port of Montreal Charts which show the rate off Suncor's facility is about 2 knots and the direction to be almost parallel to the face of the berths.

COMMUNICATIONS



2 COMMUNICATIONS

2.1 ESTIMATED TIME OF ARRIVAL (ETA)

Masters are required to provide information on ETA's in accordance with the terms of the charter party and to provide the refinery operations centre (514-640-8259) with ETA notice's at 48 hours (if possible), 24 hours (mandatory), again at 12 and 4 hours and if ETA changes by +/- 1 hour.

The operations centre will then track the vessel's progress via the local VTS service.

2.2 USEFUL LOCAL NUMBERS

| Suncor Refinery Operations Centre - | 514 640 8259 (24 hrs) | |
|--|-------------------------------|--|
| ETA's, visitors to dock etc.: | | |
| Suncor Dock Office, staffed when vessel is alongside | 514 640 8265 | |
| Port of Montreal Operations Centre, water levels, spills | 514 283 7022/3 (24 hrs) | |
| Canadian Coast Guard, Emergencies, Spills | Any Coast Guard Radio Station | |
| Vessel Traffic System | 514 651 7312 (24 hrs) | |
| Canadian Hydrographic Service – (Internet) | http://waterlevels.gc.ca/eng | |
| Immigration Canada | 514 496 2772 | |
| Laurentian Pilotage Authority Dispatch | 514 496-2156 (24 hrs) | |
| URGENCE MARINE INC ., garbage and waste disposal | 514 640 3138 | |
| Ocean Remorquage - Towing and Salvage, tug assist | 1 877 694 1414 | |
| Montreal Boat Men, tug assist | 514 640 4970 (24 hrs) | |
| Police | 911 | |
| Fire | 911 | |
| Suncor Marine Department – Voyage Orders | 905 804 4500 | |
| Suncor Marine Bunker order desk | 514 640 8341/514 640 8393 | |

BERTHING AND MOORING



3 BERTHING AND MOORING

3.1 VESSEL SIZE AND RESTRICTIONS - BERTH 110 EAST

The key vessel criterion at this berth is "stern to centre of manifold". The shore manifold is located at 30.5 metres, from the downstream end of the dock, resulting in the stern overhanging the dock and all stern lines leading forward. The navigation chart shows shallow water approximately 75 metres downstream from the dock.

| Vessel Size Parameters | Restriction |
|-------------------------------------|-------------|
| Maximum SCM | 70 m (1)* |
| Maximum Length | 135m |
| Minimum manifold above water | 2.1 m (2)* |
| Maximum manifold above water | 17.5 m (2)* |
| Maximum displacement. | 20,000t |
| *Note (1) Vessel starboard side to. | |
| (2) at chart datum. | |

3.2 VESSEL SIZE RESTRICTIONS - BERTH 109

The key vessel criteria at this berth is "bow to centre of manifold". As the BCM increases, the vessel can deploy more effective forward breast lines; however the navigational chart indicates shallow water in the vicinity of the mooring dolphin in line with the dock face.

| Vessel Size Parameters | Restrictions | | |
|--|--------------|--|--|
| Maximum bow to centre of manifold (1)* | 130m | | |
| Maximum length (4)* | 170m | | |
| Maximum length (1)(3)* | 258m | | |
| Maximum displacement (1)(3)* | 98,842t | | |
| Minimum manifold above water level | 2.1m (2)* | | |
| Maximum manifold above water level | 17.5m (2)* | | |
| *Note (1) vessel starboard side to, berth 110 East is vacant | | | |
| (2) at chart datum | | | |
| (3) Berthing velocity not to exceed 0.075m/s | | | |
| (4) if berth 110 East is occupied | | | |

When vessels are berthed simultaneously at berths 109 and 110; a minimum distance of 30m is to be maintained between the two vessels.

3.3 SPOT APPROVAL

The parameters shown in 3.1 and 3.2 may be relaxed for an individual vessel call subject to a marine technical review of the special circumstances of the relaxation request and written approval by Suncor Marine Department.

3.4 MOORING CRITERIA

- The two berths do not have a history of mooring problems. Masters should be aware of the strong downstream current and the probability of passing vessel effects while their vessel is secured at the berth.
- All vessel mooring wires must be fitted with synthetic mooring tails that meet OCIMF
 guidelines. i.e. 11 metres in length with a minimum breaking strength of 125% of the
 breaking strength of the wire to which they are attached and be connected to the wire with
 Mandel or Tonsberg type shackles.
- Mooring lines in similar service, e.g. spring lines, should be of the same material and be similar in length. Mixed mooring is prohibited.
- With the exception of the mooring dolphin upstream of Berth 109 and two mooring bollards at the downstream end of Berth 110 West, mooring bollards are along the face of the berths. Vessel Masters should prepare their mooring plan accordingly.
- While the responsibility for the adequate mooring of a vessel rests with the Master, the
 terminal has an interest in ensuring that vessels are securely and safely moored. Appendix
 1, Mooring Guideline Diagrams describes the minimum moorings which terminal staff will
 expect vessels to deploy while at this facility.

3.5 BERTHING INFORMATION

- Berths 109 and 110 East are almost parallel to the channel and the river current. The
 preferred berthing procedure see Section 3.6 is to stem the current and berth starboard
 side to.
- Both berths are provided with adequate fendering. Masters are cautioned to exercise care
 in the berthing manoeuvre to minimize the angle and speed of approach.

3.6 BERTHING MANOEUVRES

• The standard procedure is to approach the facility from downstream, stemming the two knot river current and preparing for berthing starboard side to. Care should be taken to

- ensure that the vessel remains in the channel until safely navigated past the shallow water area just downstream of the facility.
- When clear of the shallow water area, the vessel departs the channel to starboard and approaches the berth. When away from the dock, the vessel is manoeuvred using the effect of the current, the vessels engines, the rudder, and is dependent on the vessel size and environmental conditions, tug assist, sideways onto the berth.
- When Berth 110 East is occupied, the berthing of a vessel into Berth 109 is restricted.
 Vessel berthing will be considered and their acceptance will be subject to Suncor's Marine Department approval.
- Suncor will not normally permit vessels to berth port side to at either Berth 109 or 110 East.

3.7 TUG ASSIST

- The safe handling of the vessel is the responsibility of the Master and his/her Pilot. Suncor does expect that effective use of tug assist will be utilized by vessel Masters in certain circumstances. The objective of tug assist is to generally aid in the safe berthing and unberthing of the vessel in particular, to minimize the risk of a hard contact with the berth and/or damage to the berth's hard arm transfer equipment.
- When tugs are required to be utilized they shall be tethered.
- Minimum tug requirements Masters shall increase these requirements at their discretion but shall not decrease these requirements without the written approval of Suncor's Marine Department.
- To help minimize the risk of a hard contact while berthing or unberthing, vessels are required to utilize tug assistance in accordance with the following schedule.

| Vessel Parameters | # Tugs for Berthing | # Tugs for Unberthing |
|--|------------------------|--------------------------|
| Up to 19,999 t displ. with Bow Thruster | - | |
| Up to 19,999 t displ. without Bow Thruster | 1 | 1 |
| 20,000 – 39,999 t displ. | 2 | 2 |
| Vessels over 40,000 t displ. | 2 | 2 |

N.B. In winter, when ice obstructs the vessels access to the berth, an additional tug will be required for ice management.

3.8 LINESMEN

 An adequate number of shore linesmen will be provided to take vessel lines and perform dock mooring duties.

N.B. vessel crews on both foreign and Canadian flag vessels will not be utilized to perform dock mooring duties.

| Guideline | Berthing | Unberthing |
|---------------------------|-----------|------------|
| Up to 19,999 t displ. | 4 Persons | 4 Persons |
| 20,000 t displ. and above | 6 Persons | 4 Persons |

3.9 ENVIRONMENTAL LIMITS

Wind Limits: Berthing

The Port of Montreal is not an exposed port and the Masters decision to berth will be subject to an evaluation of the wind direction and speed, the load condition of the vessel, the availability of tug assist and the capability of the vessels mooring equipment. Vessels should not be berthed in adverse wind conditions i.e. offshore or onshore winds in excess of 30 knots.

Adverse wind conditions while in the berth.

Masters are reminded that in adverse wind conditions the access to a safe anchorage in the Port may be limited by supply/demand. If a Master elects to remain on the berth in adverse wind conditions he/she must take all necessary precautions such as deploying additional moorings and engaging tugs to aid in keeping the vessel safely alongside.

| Stop cargo | 25kt |
|---------------------------|-------|
| Disconnect arm | 30kt |
| Take precautionary action | 35Kts |

RULES AND REGULATIONS



4 RULES AND REGULATIONS

4.1 GENERAL FEDERAL GOVERNMENT REQUIREMENTS

Masters are required to operate their vessels in compliance with Canadian Legislation and Regulations while in Canadian waters. Many of Canada's marine requirements are based on IMO and ILO standards. Certain requirements are, however, unique to Canada and Masters of non-Canadian vessels and should ensure that their vessel's agent informs them of distinct Canadian requirements.

4.2 SPECIAL 'ICE NAVIGATION' REQUIREMENTS

Masters of laden tankers destined for or departing Suncor's Montreal Terminal are advised that vessels must be in compliance with the "joint Industry - Coast Guard guidelines for the control of oil tankers and bulk chemical carriers in ice control zones of Eastern Canada" when transiting the Gulf and River St. Lawrence in the winter.

4.3 PORT OF MONTREAL REGULATIONS

Masters should ensure compliance with these regulations i.e. National Harbours Board Bylaw A-1.

4.4 SUNCOR MONTREAL EAST TERMINAL RULES AND PROCEDURE

Tankers destined for the Terminal are required to have the latest edition of the "International Safety Guide for Oil Tankers and Terminals - ISGOTT" on board.

Suncor is committed to safe operations and the protection of the environment at its Montreal Terminal. Vessel staff are requested to immediately bring any unsafe conditions or pollution risks to the attention of terminal staff and to take appropriate action to remedy the situation, including the suspension of cargo transfer activity.

Nothing in these rules and procedures will relieve Masters of their responsibilities in observing normal safety, fire prevention, pollution prevention and security precautions. Terminal staff are authorized to advise and request Masters to take additional measures to ensure safe operations should circumstances so require. Terminal staff are also authorized to suspend oil transfer operations in the event of an infringement of terminal rules and procedures or if any other hazardous situation is encountered.

The following safety regulations have been developed in an effort to reduce the possibility of an incident involving fire, explosion, spills or other hazard:

1. Safety Requirements

Masters and/or barge supervisors will adhere to the following Suncor Montreal Marine Terminal Rules and Procedures after completion of berthing operations.

2. Safety Check List

On completion of berthing and prior to the commencement of deballasting or cargo transfer, the Vessel/Terminal Safety Check List - Appendix 2 will be completed following a joint inspection by the terminal operator and a responsible tanker officer. This safety Check List is based on the recommendations of the "International Safety Guide for Oil Tankers and Terminals" (ISGOTT).

3. Gangway

The vessels gangway must be in good condition and of an appropriate length for safe access between vessel and shore. An effective safety net must be deployed. N.B. Elevation of dock above chart datum is 5.8m.

4. Vessels Decks

Walkways required for accessing cargo systems, deck machinery and emergency equipment shall be kept clear of obstructions, and at all times provide a safe walking surface.

5. Engine Readiness

The vessels main engines, steering machinery and other equipment essential for manoeuvring shall be maintained in a state of readiness for vacating the berth under full engine power at short notice not exceeding 15 minutes.

6. Repairs

No hot work is to be performed on board any vessel while alongside the terminal. The testing of radar, vessels radio equipment and other electrical equipment is prohibited unless written permission is received from the terminal supervisor. Tank cleaning and gas freeing shall not be carried out alongside without written approval from the Suncor Marine Department. Chipping and scraping on the deck or hull is prohibited.

7. Staffing

A sufficient number of vessels personnel to safely handle the operation in progress and deal

with emergencies, including an emergency departure from the berth, are to be onboard at all times while the vessel is at the berth.

8. Vessels Moorings

Vessel personnel must frequently monitor and carefully tend the vessels moorings to ensure that the vessel is safely secured having regard for the weather and current conditions. *N.B.*Watch keepers should guard against "passing vessel effect" especially when the under keel clearance is low.

9. Ship/Shore Communications

Communication between the terminal and vessel will be by portable UHF radios. These shall be tested and found satisfactory before transfer operations commence. The vessel's responsible officer and the terminal operator shall confirm with each other that the communication system and signals for controlling the operations are understood by all personnel involved prior to the commencement of deballasting or cargo transfer. *See Section 5.3 and Appendix 3.*

In the event of a total breakdown of radio communication between the terminal and the vessel during cargo transfer operations, then these operations shall be immediately suspended and not resumed until satisfactory communications are re-established.

10. Smoking

Smoking is strictly prohibited while at the berth except in designated areas which have been jointly approved by the Master and by the terminal operator.

Smoking notices specifying the designated smoking areas shall be exhibited in conspicuous places on board the vessel.

Where smoking is approved on vessels, approval may be withdrawn by terminal operator if circumstances so warrant.

11. Matches and Lighters

The carrying and use of matches and lighters is prohibited on board the vessel, on the terminal, and while alongside the terminal except under controlled circumstances in the designated smoking areas.

12. Portable Electrical Equipment

Portable electric lamps and portable electric equipment for use in hazardous areas must be of

an approved type.

Any other electrical or electronic equipment of non-approved type - such as radios, mobile telephones, radio pagers, calculators, photographic equipment are not to be active, switched on or used within hazardous areas.

13. Radio Equipment

The use of the vessels radio transmitting equipment while alongside is prohibited and the transmitting antennae should be earthed. This does not apply to permanently and correctly installed VHF and UHF equipment provided the power output is reduced to one watt or less.

14. Galley Stoves and Other Cooking Equipment

The use of galley stoves and other cooking equipment shall be permitted, provided the Master and terminal operator agree to their use.

15. Radar - Satellite Communication Terminals - Closed Circuit Television

The use of this equipment for any purpose is prohibited during the period that the vessel is alongside, except with the approval of the terminal operator.

16. Prevention of Sparking and Excessive Smoke

Soot blowing and excessive smoke are prohibited, and immediate steps shall be taken to eliminate any sparking from funnels/stacks.

17. Inert Gas Systems

All tankers fitted with cargo tank inerting system should arrive with cargo tanks inerted to 5% O2 or less by volume and pressurized as required by the SOLAS Convention.

(a) Tank Inspection, Gauging, Sampling, Water Dips and Temperatures

Cargo tanks requiring inspection should only be opened on a tank-by tank basis. The IG system shall be maintained at about 200mm water gauge except for the individual tank to be opened which, if possible, is to be isolated from the system and the sighting port opened with care. On completion of inspection the tank shall be secured and repressurized. The next tank is not to be isolated and opened until the preceding tank is secured and open to the IG system

All gauging, sampling water dips and temperatures will be taken either through special fittings provided; or if it is necessary to open up tanks for this purpose, then this will be done one tank at a time as described above.

(b) Failure of IGS

If at any time the IGS is not maintaining the prescribed conditions, the terminal operator shall order a suspension of transfer operations. The cost of any delays and shifting shall be on the vessel's account.

18. Fire Precautions

The vessel's firefighting appliances, including main and emergency fire pumps, shall be kept ready for immediate use.

Before operations commence, at least two fire hoses and jet/fog nozzles shall be laid out on the tank deck, connected to the fire main and tested as required by the terminal operator. The two fire monitors immediately adjacent to the manifold should be elevated, aligned towards the manifold area and made ready for immediate use. Throughout vessel stay at berth, fire line shall be pressurized, ready for immediate use. Two portable fire extinguishers, preferably of the dry chemical type, shall be available in the proximity of the manifold area.

Should fire occur on the vessel, the Master or responsible vessel's officer of such vessel shall make an immediate signal by prolonged blasts on the vessel's whistle and by sounding the fire alarm, and will also place the engine on standby. All transfer operations shall cease and cargo arm disconnected immediately.

19. <u>Emergency Procedures</u>

As required by the Vessel/Terminal Safety Check List, the Master of the vessel and the terminal operator should discuss and agree upon the action to be taken in the event of an emergency or a fire on board either the tanker or the terminal. This should include means of communication and emergency procedures. *See Section 6*.

20. Operating Procedures

Procedures for cargo and/or ballast operations shall be agreed in writing between the terminal operator and the vessel's Master or Chief Officer. See Appendix #3.

21. Sea and Overboard Discharge Valves

Before any cargo or ballast transfer commences, sea and overboard discharge valves connected to the cargo or ballast system shall be closed and sealed with numbered seals. When sealing is not practicable, as with hydraulic valves, some suitable means of marking should be used to indicate that the valves are to remain closed. Seal numbers should be recorded on the Vessel/Terminal Safety Check List. Except in an emergency, these seals shall be removed only with the approval of the terminal operator. A careful watch shall also be maintained to ensure that oil is not leaking through sea and overboard discharge valves.

22. Conditions to be observed on Board Vessels During Transfer Operations

- (a) Deballasting has to be carried out on the outboard side of the vessel. In case this is not possible (due to the pipeline configuration of the vessel) alternative to be agreed during initial meeting with terminal representative
- (b) A qualified vessel's officer, able to communicate effectively in English with the terminal staff, is required to be on deck or in the control room at all times. A continuous deck watch is to be maintained to ensure moorings are carefully tended and cargo transfer arms are under observation at all times.
- (c) Towing off wires shall be made fast to bitts as far forward and aft as possible on the outboard side. The wires shall be in good condition, at least 1 1/8" (28mm) diameter, and secured with at least five turns or have the eye on the bitts. The outboard eye shall be maintained at a height of between 1 metre and 2 metres above the water at all times using a small diameter heaving line for this purpose.
- (d) All doors, portholes and openings leading from or overlooking the main deck to accommodation, machinery spaces (excluding pump room) and forecastle shall be kept closed. Cargo control room doors opening on to or above the main deck may be opened momentarily for access.
- (e) All ventilators through which gas can enter accommodation or machinery spaces shall be suitably trimmed. Air conditioning units shall be stopped or operated in a recirculation mode. Window type air conditioning units shall be electrically disconnected.
- (f) The venting of the vessel's tanks shall take place only through the vessel's fixed venting system.
- (g) All cargo, ballast and bunker tank lids and tank washing openings shall be securely closed.

- (h) Sighting and ullage ports when not in use shall be kept closed. When any are open for operational reasons, the openings shall be protected by approved gauze flame screens. These screens shall be kept clean and in good condition. Portable screens should be a good fit.
- (i) All unused cargo and bunker connections shall be properly blanked, fitted with a gasket and bolted with at a bolt in every hole at the manifold. Stern cargo pipelines (if fitted) shall be isolated forward of the aft accommodation by blanking.
 - Any part of a slop transfer system which extends into machinery spaces shall be securely blanked and isolated on the tank deck.
- (j) If for any reason there is poor dispersion which results in an accumulation of gas on or about the decks of the vessel, transfer shall be stopped or the transfer rate relevant to a particular tank or tanks reduced at the discretion of either the terminal operator or the responsible vessel's officer.
- (k) The vessel shall by day fly Flag "B" of the International Code, and by night an allround red light.
- (I) H2S portable monitors must be worn by all personnel working on deck if the cargo contains H2S

23. Movements of Refuelling Vessels, Garbage Barge, Tugs, Workboats and Other Craft

During transfer operations, no craft shall be allowed alongside the vessel unless approval has been given by the terminal operator, Suncor Marine Department and as agreed to by the Master of the vessel.

24. Emergency Escape

Means for emergency escape shall be provided on the offshore side of the vessel. For security reasons such means is to be stowed at deck level in such a manner as to be ready for expeditious use in an emergency. Such means shall be of adequate length to reach the water at all times.

25. <u>Conditions Requiring Immediate Action</u>

Ballast or cargo transfer operations shall not be started, or if started, shall be discontinued by either the responsible officer of the vessel or the terminal operator when any of the following conditions is noted:

- (a) On the approach of and during electrical storms, heavy rainstorms or period of high winds, all tank openings and cargo valves shall be closed, and transfer arms disconnected.
- (b) If a fire occurs on the terminal, the vessel or any craft in close proximity, and in addition, all tank openings and cargo valves shall be closed.
- (c) If there are insufficient competent personnel aboard the vessel to safely handle the operation in progress, and to handle any emergency situation.
- (d) If a spill or leak occurs aboard the vessel or on the terminal.
- (e) If any other emergency situation arises which, in the opinion of the vessel's responsible officer or the terminal operator constitutes a potential hazard to either the vessel or the terminal.

26. Avoidance of Oil Pollution

During transfer operations all scuppers shall be effectively plugged, fixed or portable manifold oil containment shall be in place, and no leakage or spillage of oil or water which can possibly contain oil shall be allowed to escape overboard. Scupper plugs may be removed to drain off accumulations of water periodically and replaced immediately after the water has been run off. Plugs to be manned at all times while open for draining. Manifold containment should be drained before transfer operations commence. Any leakage or spillage must be reported immediately to the terminal operator and regulatory authorities.

A supply of absorbent material shall be available at the manifold to facilitate the immediate cleanup of minor spills.

No hazardous material shall be thrown overboard, nor shall any other objectionable material, either solid or fluid, be thrown overboard from the vessel.

27. Tank Lids

All cargo tank lids, ullage and sighting ports shall be securely closed before berthing or unberthing operations commence.

28. <u>List</u>

Excessive listing of the vessel must be avoided

29. Noise

Due to the proximity of local residences and City of Montreal public spaces to the dock area at Montreal, vessels are required to make any and all efforts to reduce operational noise levels to the minimum possible while alongside Port of Montreal Sections 109 or 110, in collaboration with the terminal and attending Pollution & Safety Advisor (PSA), and always in consideration of maintaining safe and efficient operations and compliance to procedures

30. Berthing/Unberthing of vessel adjacent to another vessels at Sections 109/110

The vessel alongside the berth will be on 'Standby Mode' for the period of berthing/unberthing of another vessel at the adjacent section of the dock.

Vessel 'Standby Mode' factors to include, but are not limited to:

- 1. Vessel engines on immediate notice
- 2. Bridge, forward and aft mooring stations, manifold to be manned
- 3. Dock watch on standby
- 4. Portable fender standby, if available.

5

CARGO AND BALLAST TRANSFER

5 CARGO AND BALLAST TRANSFER

5.1 TERMINAL MANIFOLDS

- Both berths are fitted with metal cargo arms which present 8, 10, and 16 inch diameter flanges. Each cargo arm is fitted with an insulating flange.
- Maximum allowable working pressure at the shore manifold is 150 lb. per square inch
 (psig). For crude imports using loading arm L-190039, the pressure at the vessel
 manifold must be maintained above 80 psig at all times (target 100 psig) when the
 crude booster transfer pump, J-170009, is in use.
- Berth 109 is fitted with six cargo arms. The following table shows the diameter of the transfer arms and the products transferred in them. They are indicated in the same order as found at the wharf starting from the west side going to the east side.

| L-19035 | L-1908 | L-1907 | L-1906 | L-1905 | L-190039 |
|--------------|---------|-------------|------------------|------------|-----------|
| 8 inch | 8 inch | 8 inch | 10 inch. | 10 inch | 16 inch |
| Benzene | Benzene | Nonene | Xylene | HFO | Crude Oil |
| vapor to VRU | | Orthoxylene | Jet Fuel, Middle | Cat Feed | |
| | | Mogas | Distillate, | Crude Oil | |
| | | Ballast | Ballast | Lube Stock | |
| | | | | Ballast | |
| | | | | Slops | |

N.B.: There is a crossover between L-1907 and L-1906 to provide either two arms for Mogas or Middle Distillate.

• Berth 110 is fitted with three cargo arms. The following table shows the diameter of the transfer arms and the products transferred in them. They are indicated in the same order as found at the wharf starting from the west side going to the east side.

| L-1909 | L-1910 | L-1911 |
|--|------------------|---|
| 8 inch | 8 inch | 8 inch |
| Jet Fuel Middle Distillate Ballast | Mogas Ballast | HFO Cat Feed Crude Oil HCB Ballast Slops |

Maximum flow rates

Black products discharging at 10,000 bbl/hr.

Black products loading at 5,000 bbl/hr.

Clean products discharging at 8,000 bbl/hr.

Clean products loading at <5,000 bbl/hr. (if 8 in. piping or cargo arm is used - static and erosive limit)

Clean products loading at <8,000 bbl/hr. (if 10 in. piping or cargo arm is used - static and erosive limit)

Crude oil discharging at 15,000 bbl/hr. (16 in. cargo arm)

5.2 VESSEL MANIFOLDS

• The ship manifolds should be fitted with reducers that are made of steel and fitted with flanges conforming to regulations BS 1560, ANSI B16.5 or equivalent.

5.3 TERMINAL BALLAST RECEIVING CAPACITY

The terminal capacity to receive ballast is limited as the total storage is 20,000 barrels and
the available ullage is often less. Non SBT/CBT vessels destined to load at the terminal and
requiring the use of ballast reception facilities should contact the refinery operations center
prior to the vessel's arrival to discuss their requirements.

5.4 PUMPING DISTANCE

 The pumping distance from the dock to the shore cargo tanks may vary depending on the distance of the shore tank ranging 1 to 4 km.

5.5 CARGO AND BALLAST OPERATING PROCEDURES

- Before cargo and/or ballast transfer commences, the vessel's officer in charge and the terminal supervisor should exchange information and agree on a transfer plan which should be documented in writing. Information exchanged and the plan must include, as a minimum, the items shown in *Appendix 3*.
- Due to the proximity of local residences and City of Montreal public spaces to the dock area at Montreal, vessels are required to make any and all efforts to reduce operational noise levels to the minimum possible while alongside Port of Montreal Sections 109 or 110, in

collaboration with the terminal and attending Pollution & Safety Advisor (PSA), and always in consideration of maintaining safe and efficient operations and compliance to procedures.

5.6 ENVIRONMENTAL LIMITS - CARGO OPERATIONS

• Stopping of cargo transfer - 25 knots. Disconnecting of loading arms - 30 knots

EMERGENCY RESPONSE TO FIRES, SPILLS, LEAKS ETC



6 EMERGENCY RESPONSE TO FIRES, SPILLS, LEAKS, ETC

6.1 FIRES

The terminal does not fight fires on vessels at the berths. Vessels are expected to be capable of fighting fires which occur on board, including securing capable external support, and notifying the proper authorities.

(Refer ISGOTT section 26.5)

6.1.1 Actions in the Event of Fire at Terminal

The terminal will raise the alarm to vessel at the berths via the portable radio communication system;

- The transfer operation is to be stopped immediately.
- The terminal will respond to the fire.
- Both the terminal and the vessel will take action to mitigate the spread of the fire to the vessel.

Terminal will - secure shore cargo system.

- disconnect transfer arms.
- stand by to cast off the moorings (if conditions allow).
- communicate with authorities.

Vessel will - secure vessel cargo system

- ready vessel for emergency departure.
- communicate with authorities.
- depart berth as required.

6.1.2 Action in Event of Fire on Board a Vessel

The vessel will raise the alarm to the terminal, via the portable radio communication system and give five or more prolonged blasts on the vessels whistle, repeated at intervals;

- The transfer operation is to be stopped immediately.
- The vessel will respond to the fire.
- Both the terminal and the vessel will take action to mitigate the spread of the fire to the terminal.

Terminal will - secure shore cargo system.

- disconnect transfer arms or hoses. (if conditions allow)

- stand by to cast off the moorings.

Vessel will - secure vessel cargo system.

- ready vessel for emergency departure.
- communicate with authorities.
- depart berth as required.

6.2 SPILLS OR LEAKS

When environmental conditions permit, i.e. no ice at the berth, the terminal deploys a boom downstream of the vessel to deflect and capture marine spills occurred from the terminal or vessels at the terminal.

6.2.1 Terminal Spills or Leaks

In the event of a spill from the terminal or a leak from the cargo arms or shore cargo piping:

- The transfer operation is to be stopped immediately and vessel to be informed
- The terminals spill response plan is to be implemented as appropriate. This will include informing the proper authorities and initiating containment recovery and clean up procedures.
- The cause of the spill must be determined and rectified before operation is resumed.

6.2.2 Vessel Spill or Leaks

In the event of a spill or leak from the vessel:

- The transfer operation is to be stopped immediately and terminal to be informed.
- Suncor Marine Department to be informed.
- The ship spill response plan is to be implemented as appropriate. This will include informing the proper authorities and initiating containment, recovery, and clean up procedures.
- The cause of the spill must be determined and rectified and confirmed with the Suncor Marine Department prior resumption of transfer operations

6.3 RESTARTING TRANSFER OPERATIONS AFTER A MARINE POLLUTION INCIDENT

Transfer operations may only resume once the cause of the spill has been determined and remedied and after it has been clearly determined that restarting transfer operations will not interfere with the immediate, effective and sustained response to the marine pollution incident

7 APPENDIX 1A

APPENDIX 1-A MOORING GUIDELINES SUNCOR **BERTH 109** Minimum mooring requirements for MONTREAL EAST TERMINAL vessels with LOA up to 135 metres CM WIND LIMITS Watch for passing ship effect Stop cargo transfer: 25 knots Admissible load on dolphin: 100 t Drain, disconnect arms: 30 Knots Admissible load on Dock Bollards: 64 t Take precautionary action: 35 knots

| Number of lines | 3 | 2 | 2 | 3 |
|-----------------|-----------------|--------------|--------------|------------------|
| Location | Head and Breast | Fore Springs | Back Springs | Breast and Stern |

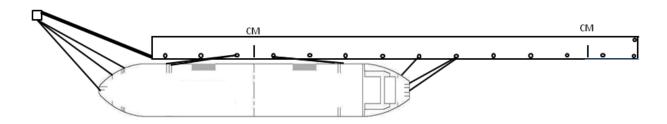
8 APPENDIX 1B

APPENDIX 1-B

SUNCOR MONTREAL EAST TERMINAL MOORING GUIDELINES

Minimum mooring requirements for vessels
with LOA from 135 to 180 metres

BERTH 109



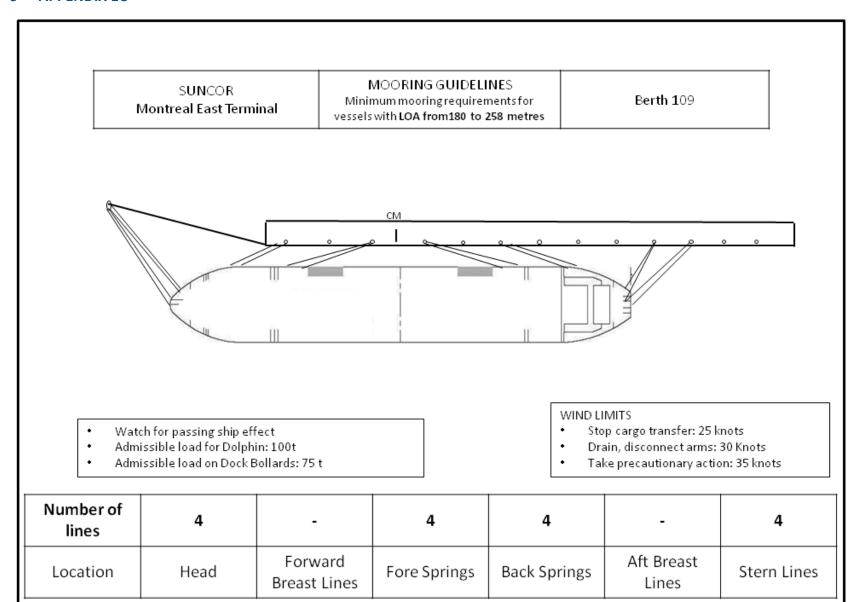
- Watch for passing ship effect
- · Admissible load on dolphin: 100 t
- Admissible load on Dock Bollards: 64 t

WIND LIMITS

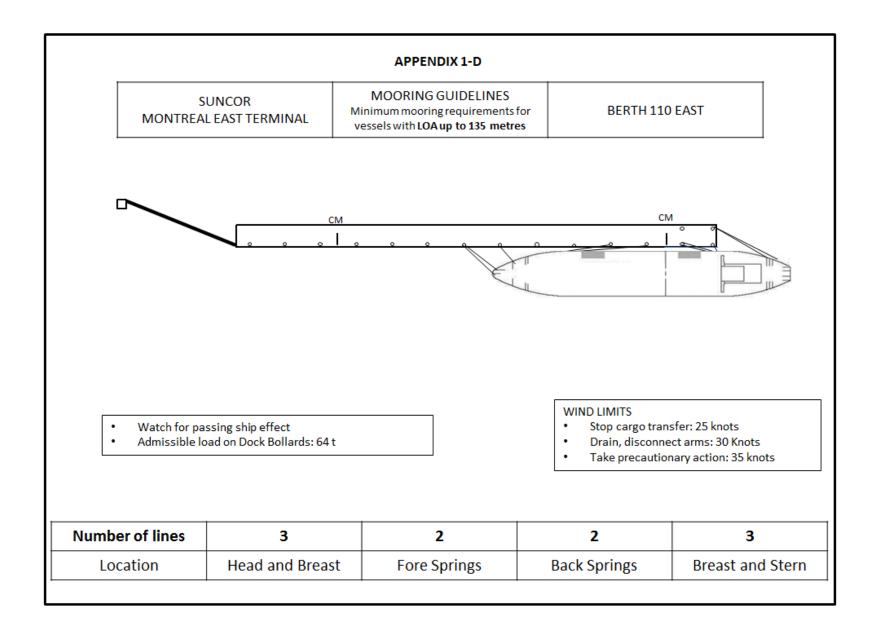
- Stop cargo transfer: 25 knots
- Drain, disconnect arms: 30 Knots
- Take precautionary action: 35 knots

| Number of lines | 3 | 2 | 2 | 3 |
|-----------------|-----------------|--------------|--------------|------------------|
| Location | Head and Breast | Fore Springs | Back Springs | Breast and Stern |

9 APPENDIX 1C



10 APPENDIX 1D



11 APPENDIX 2 - VESSEL SHORE SAFETY CHECKLIST (ISGOTT 26.3.3)

| 'essel's Name | | | | | | | |
|---------------|----|-----------------|--|--|--|--|--|
| Berth | | Port | | | | | |
| Date of Arriv | al | Time of Arrival | | | | | |

PART 'A' - BULK LIQUID GENERAL - PHYSICAL CHECKS

Coding of Items

The presence of the letters 'A', 'P' or 'R' in the column entitled 'Code' indicates the following:

- A ('Agreement'). This indicates that the referenced consideration should be addressed by an agreement or procedure that should be identified in the 'Remarks' column of the Check List, or communicated in some other mutually acceptable form.
- **P** ('Permission'). In the case of a negative answer to the statements coded 'P', no operations are to be conducted without the written permission from the appropriate authority.
- **R** ('Re-check'). This indicates items to be re-checked at appropriate intervals, as agreed between both parties and stated in the declaration.

The joint declaration should not be signed until all parties have checked and accepted their assigned responsibilities and accountabilities

| | Bulk Liquid - General | Ship | Terminal | Code | Remarks |
|----|---|------|----------|------|----------------------|
| 1. | There is safe access between the ship and shore. | | | R | |
| 2. | The ship is securely moored. | | | R | |
| 3. | The agreed ship/shore communication system is operative. | | | A R | SystemBack-up system |
| 4. | Emergency towing-off pennants are correctly rigged and positioned. | | | R | |
| 5. | The ship's fire hoses and fire- fighting equipment is positioned and ready for immediate use. | | | R | |
| 6. | The terminal's fire-fighting equipment is positioned and ready for immediate use. | | | R | |
| 7. | The ship's cargo and bunker hoses, pipelines and manifolds are in good condition, properly rigged and appropriate for the service intended. | | | | |

| 8. The terminal's cargo and bunker hoses/arms are in good condition, properly rigged and appropriate for the service intended. | | | |
|--|--|---|----------|
| 9. The cargo transfer system is sufficiently isolated and drained to allow safe removal of blank flanges prior to connection. | | | |
| Scuppers and 'save alls' on board are effectively plugged and drip trays are in position and empty. | | R | |
| Temporarily removed scupper plugs will be constantly monitored. | | | |
| 12. Shore spill containment and sumps are correctly managed. | | R | |
| 13. The ship's unused cargo and bunker connections are properly secured with blank flanges fully bolted. | | | |
| The terminal's unused cargo and bunker connections are properly secured with blank flanges fully bolted. | | | |
| 15. All cargo, ballast and bunker tank lids are closed | | | |
| Sea and overboard discharge valves, when not in use, are closed and visibly secured. | | | |
| 17. All external doors, ports and windows in the accommodation, stores and machinery spaces are closed. Engine room vents may be open. | | R | |
| 18. The ship's emergency fire control plans are located externally. | | | Location |

If the ship is fitted, or required to be fitted, with an Inert Gas System (IGS) the following points should be physically checked:

| Inert Gas System | Ship | Terminal | Code | Remarks |
|--|------|----------|------|---------|
| 19. Fixed IGS pressure and oxygen content recorders are working. | | | R | |

| 20. All cargo tank atmospheres are at | | Р | R | |
|---------------------------------------|--|---|-----|--|
| positive pressure with oxygen | | • | 1 \ | |
| content of 8% or less by volume. | | | | |

PART 'B' - BULK LIQUID GENERAL - VERBAL VERIFICATION

| Bulk Liquid - General | Ship | Terminal | Code | Remarks |
|---|------|----------|------|--------------------------|
| 21. The ship is ready to move under its own power. | | | P R | |
| 22. There is an effective deck watch in attendance on board and adequate supervision of operations on the ship and in the terminal. | | | R | |
| 23. There are sufficient personnel on board and ashore to deal with an emergency. | | | R | |
| 24. The procedures for cargo, bunker and ballast handling have been agreed | | | A R | |
| 25. The emergency signal and shutdown procedure to be used by the ship and shore have been explained and understood | | | Α | |
| 26. Material safety data sheets (MSDS) for the cargo transfer have been exchanged where requested. | | | | |
| 27. The hazards associated with toxic substances in the cargo being handled have been identified and understood. | | | | H ₂ S Content |
| 28. An International Shore Fire Connection has been provided. | | | | |
| 29. The agreed tank venting system will be used. | | | A R | Method |
| Bulk Liquid - General | Ship | Terminal | Code | Remarks |
| 30. The requirements for closed operations have been agreed. | | | R | |
| 31. The operation of the P/V system has been verified. | | | | |
| 32. Where a vapour return line is connected, operating parameters have been agreed. | | | A R | |
| 33. Independent high level alarms, if fitted, are operational and have been tested. | | | | |
| 34. Adequate electrical insulating means are in place in the ship/shore connection. | | | | |

| 35. Shore lines are fitted with a non- return valve or procedures to avoid 'back filling' have been discussed. | | | | |
|---|------|----------|------|--------------------------|
| 36. Smoking rooms have been identified and smoking requirements are being observed. | | | A R | Nominated smoking rooms: |
| 37. Naked light regulations are being observed. | | | A R | |
| Ship/shore telephones, mobile phones and pager requirements are being observed. |) | | A R | |
| 39. Hand torches (flashlights) are of an approved type. | | | | |
| 40. Fixed VHF/UHF transceivers and AIS equipment are on the correct power mode or switched off. | | | | |
| 41. Portable VHF/UHF transceivers are of an approved type. | | | | |
| 42. The ship's main radio transmitter aerials are earthed and radars are switched off. | | | | |
| 43. Electric cables to portable electrical equipment within the hazardous area are disconnected from power. | | | | |
| 44. Window type air conditioning units are disconnected. | | | | |
| 45. Positive pressure is being maintaine inside the accommodation. | ed | | | |
| 46. Measures have been taken to ensure sufficient mechanical ventilation in the pump room. | | | R | |
| 47. There is provision for an emergency escape. | 1 | | | |
| 48. The maximum wind and swell criteria for operations has been agreed. | | | А | Stop cargo at: |
| Bulk Liquid - General | Ship | Terminal | Code | Remarks |
| 49. Security protocols have been agreed between the Ship Security Officer and the Port Facility Security Officer, if appropriate. | / | | A | |
| | | | | |

If the ship is fitted, or required to be fitted, with an Inert Gas System (IGS) the following statements should be addressed.

| Inert Gas System | Ship | Terminal | Code | Remarks |
|------------------|------|----------|------|---------|
|------------------|------|----------|------|---------|

| 50. The IGS is fully operational and in good working order. | | Р | |
|---|--|---|--|
| 51. Deck seals, or equivalent, are in good working order. | | R | |
| 52. Liquid levels in pressure/vacuum breakers are correct. | | R | |
| 53. The fixed and portable oxygen analysers have been calibrated and are working properly. | | R | |
| 54. All the individual tank IGS valves (if fitted) are correctly set and locked. | | R | |
| 55. All personnel in charge of cargo operations are aware that in the case of failure of the Inert Gas Plant, discharge operations should cease, and the terminal be advised. | | | |

If the ship is fitted with a crude oil washing (COW) system, and intends to COW, the following statements should be addressed.

| Crude Oil Washing | Ship | Terminal | Code | Remarks |
|--|------|----------|------|---------|
| 56. The Pre-Arrival COW checklist, as contained in the approved COW manual, has been satisfactorily completed. | | | | |
| 57. The COW check lists for use before, during and after COW, as contained in the approved COW manual, are available and being used. | | | R | |

If the ship is planning to tank clean alongside, the following statements should be addressed.

| 58. Tank cleaning operations are planned during the ship's stay alongside the shore installation. | Yes/No* | Yes/No* | |
|---|---------|---------|--|
| 59. If 'yes' the procedures and approvals for tank cleaning have been agreed. | | | |
| 60. Permission has been granted for gas freeing operations. | Yes/No* | Yes/No* | |

^{*} Delete Yes or No as appropriate

PART 'C' - BULK LIQUID CHEMICALS - VERBAL VERIFICATION

| Bulk Liquid Chemicals | Ship | Terminal | Code | Remarks |
|---|------|----------|------|---------|
| Material Safety Data Sheets are available giving the necessary data for the safe handling of the cargo. | | | | |

| 2. | A manufacturer's inhibition certificate, where applicable, has been provided. | | Р | |
|-----|---|--|---|--|
| 3. | Counter measures against accidental personal contact with the cargo have been agreed. | | | |
| 4. | Sufficient protective clothing and equipment (including self-contained breathing apparatus) is ready for immediate use and is suitable for the product being handled. | | | |
| 5. | The cargo handling rate is compatible with the automatic shutdown system, if in use. | | Α | |
| 6. | Cargo system gauges and alarms are correctly set and in good order. | | | |
| 7. | Portable vapour detection instruments are readily available for the products being handled. | | | |
| 8. | Information on fire-fighting media and procedures has been exchanged. | | | |
| 9. | Transfer hoses are of suitable material, resistant to the action of the products being handled. | | | |
| 10. | Cargo handling is being performed with the permanent installed pipeline system. | | Р | |

PART 'D' - BULK LIQUEFIED GASES - VERBAL VERIFICATION

| | Bulk Liquefied Gases | Ship | Terminal | Code | Remarks |
|-----------------|---|------|----------|------|---------|
| av | aterial Safety Data Sheets are railable giving the necessary data rathe safe handling of the cargo. | | | | |
| се | manufacturer's inhibition ertificate, where applicable, has een provided. | | | Р | |
| | e water spray system is ready for mediate use. | | | | |
| eq bre | ere is sufficient protective puipment (including self-contained eathing apparatus) and protective othing ready for immediate use. | | | | |
| pro | old and inter-barrier spaces are operly inerted or filled with dry air, a required. | | | | |
| | remote control valves are in orking order. | | | | |
| co the ha | e required cargo pumps and ompressors are in good order, and e maximum working pressures ave been agreed between ship and shore. | | | A | |
| | e-liquefaction or boil off control quipment is in good order. | | | | |
| be | ne gas detection equipment has een properly set for the cargo, is dibrated and is in good order. | | | | |
| | argo system gauges and alarms e correctly set and in good order. | | | | |
| be | nergency shutdown systems have een tested and are working operly. | | | | |
| oth va | hip and shore have informed each ther of the closing rate of ESD lives, automatic valves or similar evices. | | | А | Ship |
| be ma pre | formation has been exchanged between ship and shore on the aximum/minimum temperatures/ essures of the cargo to be andled. | | | A | |
| ina wh | argo tanks are protected against advertent overfilling at all times nile any cargo operations are in ogress. | | | | |
| ve | e compressor room is properly entilated; the electrical motor room properly pressurised and the | | | | |

DECLARATION

We, the undersigned, have checked the above items in Parts A and B, and where appropriate, Part C or D, in accordance with the instructions and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

We have also made arrangements to carry out repetitive checks as necessary and agreed that those items coded 'R' in the Check List should be re-checked at intervals not exceeding _____ hours.

If to our knowledge the status of any item changes, we will immediately inform the other party.

| For Vessel | For Shore |
|------------|-----------|
| Name | Name |
| Rank | Position |
| Signature | Signature |
| Date | Date |
| | |

Record of repetitive checks:

| Date: | | | | |
|----------------------|--|--|--|--|
| | | | | |
| Time: | | | | |
| Initials for Vessel: | | | | |
| Initials for Shore: | | | | |

12 APPENDIX 3 - CARGO BALLAST TRANSFER PLANNING

Information Exchange

- Volume and grade of cargo/ballast to be transferred.
- Cargo location on vessel.
- Maximum acceptable pressure and flow rates.
- Preferred/mandatory transfer sequence.
- Communication process.
- Terminal rules and procedures.
- Notification required to slow down and stop flow.
- Emergency stops.
- Weather outlook.

Documented Operational Plan

- Volume and grade of cargo and ballast to be transferred.
- Agreed sequence of multi-grade cargo transfers.
- Communication signals for: standby to transfer; start transfer; slow down transfer; stand by to stop transfer; stop transfer; emergency stop of transfer; emergency shutdown of transfer.
- The maximum pressure at: the vessels manifold; the terminal manifold.
- The start-up flow rate, the maximum transfer flow rate, the tank topping (slowdown) rate.
- The notification time for slowing and stopping transfer.
- The emergency shutdown procedure and time required to implement.
- Cargo temperature limits.
- System of venting.
- Times of staff's duty change on vessel and in terminal.

Terminal ______Date _____

13 APPENDIX 4 - SAFETY LETTER

Suncor Energy Products Partnership

| | The Master MT | | | | | |
|--|---|--|--|--|--|--|
| | | Port | | | | |
| Dear Sir, | | | | | | |
| as Master of the ship, and with the operations start, to seek your full c | responsible Terminal Re o-operation and understa | ship is at this terminal rests jointly with you, presentative. We wish, therefore, before anding on the safety requirements set out in practices that are widely accepted by the oil | | | | |
| | and we, for our part, will | ctly to these requirements throughout your ensure that our personnel do likewise, and efficient operations. | | | | |
| Before the start of operations, and from time to time thereafter, for our mutual safety, a member of the terminal staff, where appropriate together with a Responsible Officer, will make a routine inspection of your ship to ensure that elements addressed within the scope of the Ship/Shore Safety Check-List are being managed in an acceptable manner. Where corrective action is needed, we will not agree to operations commencing or, should they have been started, we will require them to be stopped. | | | | | | |
| Similarly, if you consider that safety is being endangered by any action on the part of our staff or by any equipment under our control, you should demand immediate cessation of operations. | | | | | | |
| There can be no compromise with Please acknowledge receipt of this | • | and returning the attached copy. | | | | |
| \$ | Signed (Terminal Represo | entative) | | | | |
| - | Terminal Representative | on duty is: | | | | |
| , | Position or Title: | | | | | |
| | | | | | | |
| (| Contact Details: | | | | | |
| \$ | Signed (Master) | | | | | |
| 5 | SS/MV | Date/Time | | | | |