



MOCK SPILL - POST EXERCISE REPORT

Baker Lake Fuel Farm Facility

2022 July

Contents

| | |
|-----------------------------------|---|
| Scenario | 2 |
| Personnel involved | 2 |
| Timeline | 3 |
| Debriefing: | 5 |
| Recommendations/Suggestions:..... | 6 |

Mock Spill Baker Lake

July 14th, 2022

Scenario

On July 14, 2022, while working near the diesel fuel line pipe at the Baker Lake Marshalling facility, an employee struck the pipe with a loader, creating a major spill flowing towards the shoreline of Baker Lake. This scenario simulates a spill with a high potential environmental impact to a water body, as well as a fire hazard.

To simulate the spill, a 1000 L tote full of water will be opened near the pipe to simulate a diesel fuel spill.

A representative of the environment department will take photos and document the spill scenario as well as act as the “Control Room” responder and the Baker Lake dispatch.

The Intertek employee(s) will be requested to:

- Assemble two orange curtains together on shore and deploy the curtains in the water along the shoreline.
- Hitch the emergency boat to a pick-up truck, back it up in the water, and start the engine
- Control and clean up the spill with available response equipment.
- Ensure fire hazard control measures are put in place (identify any potential fire hazards and move them out of the line of fire).

The goal of this exercise is to assess if the employees understand the spill procedure, contact information, equipment, and location, as well as the proper techniques to contain the spill and mitigate any potential fire hazards.

Personnel involved

- AEM Environmental department: Rowan Woodall
 - Role and responsibility: Act as the dispatcher and control room team during the scenario. Provide recommendations to improve the process if deemed necessary.
- AEM Environmental department: Jeff Dufour
 - Role and responsibility: Monitored and documented the actions executed by the on-scene workers during the event in order to ensure protocols are followed and to give recommendations to improve the process if deemed necessary.
- AEM Logistics department: Alexandre Canuel
 - Role and responsibility: Aid the Intertek crews upon their request to respond to the environmental emergency. Act as the loader operator that struck and damaged the fuel line causing the major spill.

- Intertek: Graemme Beaton
 - Role and responsibility: Inspecting and monitoring the fuel transfer from the manifold through the permanent pipe up to the fuel farm. Respond to any environmental emergency.
- Intertek: Martin Lamoureux
 - Role and responsibility: Inspecting and monitoring the fuel transfer from the manifold through the permanent pipe up to the fuel farm. Respond to any environmental emergency.

Timeline

- 8:10 - Alexandre the loader operator reported to the Intertek crew that he had struck the fuel line and diesel was leaking every from the line.
 - They immediately call the Kivalliq fuel ship to ask them to stop the fuel discharge;
 - They immediately asked the operator to move his equipment and shut it down.
 - They advised Alexandre where the seacans with PPE and spill response equipment are located and asked him to assist in containing the spill.
- 8:11 Kivalliq fuel ship gives confirmation that the fuel discharge is stopped.
 - A decision is made by Intertek representatives to close the Manifold (valve) to prevent back flow of fuel from the remaining length of piping
- 8:12 Intertek representatives arrive to the spill scene with absorbent pads, shovels, and PPE. One Intertek employee utilizes a shovel and the loose sand to build a berm to slow the flow of the diesel towards Baker Lake.
 - Alexandre was asked to deploy absorbent pads downstream of the contaminated area.
 - One Intertek employee calls for environment on the radio looking for support.



- 8:13 Intertek asks the fuel ship to drain the line (5 minutes process). Fuel is drained back to the vessel
- 8:15 control room has assembled and is asking for an update on the spill situation to the Intertek employees
 - One Intertek representative advises the control room that diesel fuel is heading towards the lake.
 - Control room advises Intertek to deploy marine barriers in the water to contain any fuel that may make it to the lake and to have an emergency boat in the water on standby
- 8:16 Both Intertek employees along with loader operator remove marine barriers and deploy them along the shore



- 8:17 One Intertek employee heads to their truck to attach the boat but realizes they do not have a 2" ball hitch to connect to the boat. Makes request over the radio for pick up with hitch to come to spud barge
- 8:18 Confirmation is received from the ship that the hose has been drained.
- 8:20 The A nearby pickup arrives to spud barge with a 2" ball hitch
- 8:21 One Intertek employee proceeds to back boat into the water with the other employee acting as a spotter.



- 8:26 Boat and trailer in the water and started
- 8:26 Confirmation is given to the control room that no contamination has reached a water body. Photos are sent out via cell phone.

Guidelines given by Environment department

- *Contaminated soil will have to be collected and bring back to Meadowbank.*
- 8:27 Spill matting pickup and requested the loader operator assist with collecting contaminated soil.



- 8:30 Mock spill is ended as the situation is under control.

Debriefing:

After the mock spill, Agnico Eagle and Intertek representatives conducted a debriefing about the mock spill and discussed ways to improve spill response. Overall, the reaction time from Intertek representatives was quick and it was a good spill response.

A few issues were noticed before the scenario. The Intertek employees did not have a functioning Agnico Eagle radios to call their supervisor. The radio they had could not connect to the tower and had to be updated. In the event of an actual spill the loader operator would not have been

able to contact the Intertek employees. The radio was brought to IT to fix the issue before the vessel arrives. The Intertek crew were also looking for additional support but did not know the numbers of near by worker. A discussed about having these numbers accessible to them on work cards or in their sea-can office.

The Intertek crew was asked to hookup to an emergency boat and back it into the water. The pickup they were provided did not have a trailer hitch attached to it which cost them some time finding a different truck with a hitch. It was suggested that Logistics team contacts Arctic Fuel to see if they can provide one for the rental pick up.

While deploying absorbent pads he AEM loader operator utilized near by pieces of wood to hold the pads down. It was suggested that he utilized rocks to avoid using a combustible material like wood.

The Environment Emergency sea-can organization also makes it difficult to find the needed tool/spill response equipment. A good clean-up and organization will have to be done. Lifting and storing the maritime booms up off the ground to prevent damage to them and provide more space inside each sea-can to maneuver equipment. The sea-can will also need to be identified from the outside to easily distinguish the emergency sea-can.

For the future, Intertek suggested getting the vessel more involved and testing the response of their crew as well. Including more of the AEM logistics team in the scenarios was also suggested to increase their knowledge regarding spill response.

Recommendations/Suggestions:

Intertek

- Radio communication: Having two radios for each of the Intertek workers would be beneficial as one of the two participants would have been on night shift, so his partner would have no means to contact him in the event of this emergency.
- Having a proper boat launch near the spud badge allowing for a safer and faster response time.
- Contact list for available support that is in Baker Lake such as the local fire department and other AEM departments
- Changing location of the Emergency boat as during the scenario it ended up being in accessible when they were deploying the booms

Environment

- Identification of each environmental emergency sea-can.
- Better organization of the environmental emergency sea-can, improved housekeeping.
- Ensure that the emergency sea-can contains all the required spill response equipment. *Suggestion of putting a seal:* that seal could be included as part of a monthly inspection, if broken, inventory will be inspected, and the sea can seal again.
- When calling out a spill ensure that everyone is aware to be very precise
- Consider doing additional training with logistics team in Baker Lake so they are aware of the available spill equipment and how to use it.

Emergency sea-cans



Location of the sea cans at Baker Lake shore



Content of the emergency sea-cans

APPENDIX E–Woodward Checklist



ISGOTT Checks pre-arrival Ship/Shore Safety Checklist

Date and time: _____

Port and berth: _____

Tanker: _____

Terminal: _____

Product to be transferred: _____

| Part 1A. Tanker: checks pre-arrival | | | |
|-------------------------------------|--|----------|---------|
| Item | Check | Status | Remarks |
| 1 | Pre-arrival information is exchanged (6.5, 21.2) | Yes / No | |
| 2 | International shore fire connection is available (5.5, 19.4.3.1) | Yes / No | |
| 3 | Transfer hoses are of suitable construction (18.2) | Yes / No | |
| 4 | Terminal information booklet reviewed (15.2.2) | Yes / No | |
| 5 | Pre-berthing information is exchanged (21.3, 22.3) | Yes / No | |
| 6 | Pressure/vacuum valves and/or high-velocity vents are operational (11.1.8) | Yes / No | |
| 7 | Fixed and portable oxygen analyzers are operational (2.4) | Yes / No | |

| Part 1B. Tanker: checks pre-arrival if using an inert gas system | | | |
|--|--|----------|---------|
| Item | Check | Status | Remarks |
| 8 | Inert gas system pressure and oxygen recorders are operational (11.1.5.2, 11.1.11) | Yes / No | |
| 9 | Inert gas system and associated equipment are operational (11.1.5.2, 11.1.11) | Yes / No | |
| 10 | Cargo tank atmospheres' oxygen content is less than 8% (11.1.3) | Yes / No | |
| 11 | Cargo tank atmospheres are at positive pressure (11.1.3) | Yes / No | |



| Part 2. Terminal: checks pre-arrival | | | |
|--------------------------------------|--|----------|---------|
| Item | Check | Status | Remarks |
| 12 | Pre-arrival information is exchanged (6.5, 21.2) | Yes / No | |
| 13 | International shore fire connection is available (5.5, 19.4.3.1, 19.4.3.5) | Yes / No | |
| 14 | Transfer equipment is of suitable construction (18.1, 18.2) | Yes / No | |
| 15 | Terminal information booklet transmitted to the tanker (15.2.2) | Yes / No | |
| 16 | Pre-berthing information is exchanged (21.3, 22.3) | Yes / No | |



ISGOTT Checks after mooring Ship/Shore Safety Checklist

| Part 3. Tanker: checks after mooring | | | |
|--------------------------------------|--|-----------------|---------|
| Item | Check (ISGOTT Reference) | Status (circle) | Remarks |
| 17 | Fendering is effective (22.4.1) | Yes / No | |
| 18 | Mooring arrangement is effective (22.2, 22.4.3) | Yes / No | |
| 19 | Access to and from the tanker is safe (16.4) | Yes / No | |
| 20 | Scuppers and savealls are plugged (23.7.4, 23.7.5) | Yes / No | |
| 21 | Cargo system sea connections and overboard discharges are secured (23.7.3) | Yes / No | |
| 22 | Very high frequency and ultra-high frequency transceivers are set to low power mode (4.11.6, 4.13.2.2) | Yes / No | |
| 23 | External openings in superstructures are controlled (23.1) | Yes / No | |
| 24 | Pumproom ventilation is effective (10.12.2) | Yes / No | |
| 25 | Medium frequency/high-frequency radio antennae are isolated (4.11.4, 4.13.2.1) | Yes / No | |
| 26 | Accommodation spaces are at positive pressure (23.2) | Yes / No | |
| 27 | Fire control plans are readily available (9.11.2.5) | Yes / No | |

| Part 4. Terminal: checks after mooring | | | |
|--|---|----------|---------|
| Item | Check | Status | Remarks |
| 28 | Fendering is effective (22.4.1) | Yes / No | |
| 29 | Tanker is moored according to the terminal mooring plan (22.2, 22.4.3) | Yes / No | |
| 30 | Access to and from the terminal is safe (16.4) | Yes / No | |
| 31 | Spill containment and sumps are secure (18.4.2, 18.4.3, 23.7.4, 23.7.5) | Yes / No | |



ISGOTT Checks pre-transfer Ship/Shore Safety Checklist

Date and time: _____

Port and berth: _____

Tanker: _____

Terminal: _____

Product to be transferred: _____

| Part 5A. Tanker and terminal: pre-transfer conference | | | | |
|---|--|---------------|-----------------|---------|
| Item | Check | Tanker status | Terminal status | Remarks |
| 32 | Tanker is ready to move at the agreed notice period (9.11, 21.7.1.1, 22.5.4) | Yes | Yes | |
| 33 | Effective tanker and terminal communications are established (21.1.1, 21.1.2) | Yes | Yes | |
| 34 | Transfer equipment is in a safe condition (isolated, drained, and de-pressurized) (18.4.1) | Yes | Yes | |
| 35 | Operation supervision and watchkeeping is adequate (7.9, 23.11) | Yes | Yes | |
| 36 | There are sufficient personnel to deal with an emergency (9.11.2.2, 23.11) | Yes | Yes | |
| 37 | Smoking restrictions and designated smoking areas are established (4.10, 23.10) | Yes | Yes | |
| 38 | Naked light restrictions are established (4.10.1) | Yes | Yes | |
| 39 | Control of electrical and electronic devices is agreed (4.11, 4.12) | Yes | Yes | |
| 40 | Means of emergency escape from both tanker and terminal are established (20.5) | Yes | Yes | |
| 41 | Firefighting equipment is ready for use (5, 19.4, 23.8) | Yes | Yes | |
| 42 | Oil spill clean-up material is available (20.4) | Yes | Yes | |
| 43 | Manifolds are properly connected (23.6.1) | Yes | Yes | |
| 44 | Sampling and gauging protocols are agreed (23.5.3.2, 23.7.7.5) | Yes | Yes | |
| 45 | Procedures for cargo, bunkers, and ballast handling operations are agreed (21.4, 21.5, 21.6) | Yes | Yes | |



| Part 5A. Tanker and terminal: pre-transfer conference (cont.) | | | | |
|---|--|---------------|-----------------|------------------------------------|
| Item | Check | Tanker status | Terminal status | Remarks |
| 46 | Cargo transfer management controls are agreed (12.1) | Yes | Yes | |
| 47 | Cargo tank cleaning requirements, including crude oil washing, are agreed (12.3, 12.5, 21.4.1) | Yes | Yes | See also parts 7B/7C as applicable |
| 48 | Cargo tank gas freeing arrangements agreed (12.4) | Yes | Yes | See also part 7C |
| 49 | Cargo and bunker slop handling requirements agreed (12.1, 21.2, 21.4) | Yes | Yes | See also part 7C |
| 50 | Routine for regular checks on cargo transferred are agreed (23.7.2) | Yes | Yes | |
| 51 | Emergency signals and shutdown procedures are agreed (12.1.6.3, 18.5, 21.1.2) | Yes | Yes | |
| 52 | Safety data sheets are available (1.4.4, 20.1, 21.4) | Yes | Yes | |
| 53 | Hazardous properties of the products to be transferred are discussed (1.2, 1.4) | Yes | Yes | |
| 54 | Electrical insulation of the tanker/terminal interface is effective (12.9.5, 17.4, 18.2.14) | Yes | Yes | |
| 55 | Tank venting system and closed operation procedures are agreed (11.3.3.1, 21.4, 21.5, 23.3.3) | Yes | Yes | |
| 56 | Vapour return line operational parameters are agreed (11.5, 18.3, 23.7.7) | Yes | Yes | |
| 57 | Measures to avoid back-filling are agreed (12.1.13.7) | Yes | Yes | |
| 58 | Status of unused cargo and bunker connections is satisfactory (23.7.1, 23.7.6) | Yes | Yes | |
| 59 | Portable very high frequency and ultra high frequency radios are intrinsically safe (4.12.4, 21.1.1) | Yes | Yes | |
| 60 | Procedures for receiving nitrogen from terminal to cargo tank are agreed (12.1.14.8) | Yes | Yes | |



Additional for chemical tankers – Checks pre-transfer

| Part 5B. Tanker and terminal: bulk liquid chemicals. Checks pre-transfer | | | | |
|--|---|---------------|-----------------|---------|
| Item | Check | Tanker status | Terminal status | Remarks |
| 61 | Inhibition certificate received (if required) from manufacturer | Yes | Yes | |
| 62 | Appropriate personal protective equipment identified and available (4.8.1) | Yes | Yes | |
| 63 | Countermeasures against personal contact with cargo are agreed (1.4) | Yes | Yes | |
| 64 | Cargo handling rate and relationship with valve closure times and automatic shutdown systems is agreed (16.8, 21.4, 21.5, 21.6) | Yes | Yes | |
| 65 | Cargo system gauge operation and alarm set points are confirmed (12.1.6.6.1) | Yes | Yes | |
| 66 | Adequate portable vapour detection instruments are in use (2.4) | Yes | Yes | |
| 67 | Information on firefighting media and procedures is exchanged (5, 19) | Yes | Yes | |
| 68 | Transfer hoses confirmed suitable for the product being handled (18.2) | Yes | Yes | |
| 69 | Confirm cargo handling is only by a permanent installed pipeline system | Yes | Yes | |
| 70 | Procedures are in place to receive nitrogen from the terminal for inerting or purging (12.1.14.8) | Yes | Yes | |



| Part 6. Tanker and terminal: agreements pre-transfer | | | | |
|--|---|---|-----------------|-------------------|
| Part 5 item | Agreement | Details | Tanker initials | Terminal initials |
| 32 | Tanker manoeuvring readiness | Notice period (maximum) for full readiness to manoeuvre: Period of disablement (if permitted): | | |
| 33 | Security protocols | Security level: Local requirements: | | |
| 33 | Effective tanker/terminal communications | Primary system: Backup system: | | |
| 35 | Operational supervision and watchkeeping | Tanker: Terminal: | | |
| 37 38 | Dedicated smoking areas and naked lights restrictions | Tanker: Terminal: | | |
| 45 | Maximum wind, current and sea/swell criteria or other environmental factors | Stop cargo transfer: Disconnect: Unberth: | | |
| 45 46 | Limits for cargo, bunkers and ballast handling | Maximum transfer rates: Topping-off rates: Maximum manifold pressure: Cargo temperature: Other limitations: | | |
| 45 46 | Pressure surge control | Minimum number of cargo tanks open: Tank switching protocols: | | |



| Part 6. Tanker and terminal: agreements pre-transfer (cont.) | | | | |
|--|--|---|-----------------|-------------------|
| Part 5 item | Agreement | Details | Tanker initials | Terminal initials |
| | | Minimum number of cargo tanks open: Tank switching protocols: Full load rate: Topping-off rate: Closing time of automatic valves: | | |
| 46 | Cargo transfer management procedures | Action notice periods: Transfer stop protocols: | | |
| 50 | Routine for regular checks on cargo transferred are agreed | Routine transferred quantity checks: | | |
| 51 | Emergency signals | Tanker: Terminal: | | |
| 55 | Tank venting system | Procedure: | | |
| 55 | Closed operations | Requirements: | | |
| 56 | Vapour return line | Operational parameters: Maximum flow rate: | | |
| 60 | Nitrogen supply from terminal | Procedures to receive: Maximum pressure: Flow rate: | | |
| XX | Exceptions and additions | Special issues that both parties should be aware of: | | |



Date and time: _____

Port and berth: _____

Tanker: _____

Terminal: _____

Product to be transferred: _____

| Part 7A. General tanker: checks pre-transfer | | | |
|--|--|--------|---------|
| Item | Check | Status | Remarks |
| 84 | Portable drip trays are correctly positioned and empty (23.7.5) | Yes | |
| 85 | Individual cargo tank inert gas supply valves are secured for cargo plan (12.1.13.4) | Yes | |
| 86 | Inert gas system delivering inert gas with oxygen content not more than 5% (11.1.3) | Yes | |
| 87 | Cargo tank high-level alarms are operational (12.1.6.6.1) | Yes | |
| 88 | All cargo, ballast and bunker tanks openings are secured (23.3) | Yes | |



ISGOTT Checks after pre-transfer conference Ship/Shore Safety Checklist

For tankers that will perform tank cleaning alongside and/or gas freeing alongside

| Part 7C. Tanker: checks before tank cleaning and/or gas freeing | | | |
|---|---|--------|---------|
| Item | Check | Status | Remarks |
| 91 | Permission for tank cleaning operations is confirmed (21.2.3, 21.4, 25.4.3) | Yes | |
| 92 | Permission for gas freeing operations is confirmed (12.4.3) | Yes | |
| 93 | Tank cleaning procedures are agreed (12.3.2, 21.4, 21.6) | Yes | |
| 94 | If cargo tank entry is required, procedures for entry have been agreed with the terminal (10.5) | Yes | |
| 95 | Slop reception facilities and requirements are confirmed (12.1, 21.2, 21.4) | Yes | |



Declaration

We, the undersigned, have checked the items in the applicable parts 1 to 7 as marked and signed below:

| | Tanker | Terminal |
|--|--------------------------|--------------------------|
| Part 1A. Tanker: checks pre-arrival | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 1B. Tanker: checks pre-arrival if using an inert gas system | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 2. Terminal: checks pre-arrival | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 3. Tanker: checks after mooring | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 4. Terminal: checks after mooring | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 5A. Tanker and terminal: pre-transfer conference | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 5B. Tanker and terminal: bulk liquid chemicals. Checks pre-transfer | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 6. Tanker and terminal: agreements pre-transfer | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 7A. General tanker: checks pre-transfer | <input type="checkbox"/> | <input type="checkbox"/> |
| Part 7C. Tanker: checks before tank cleaning and/or gas freeing | <input type="checkbox"/> | <input type="checkbox"/> |

In accordance with the guidance in chapter 25 of ISGOTT, we have satisfied ourselves that the entries we have made are correct to the best of our knowledge and that the tanker and terminal are in agreement to undertake the transfer operation.

We have also agreed to carry out the repetitive checks noted in parts 8 and 9 of the ISGOTT SSSCL, which should occur at intervals of not more than _____ hours for the tanker and not more than _____ hours for the terminal.

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

| Tanker | Terminal |
|-----------|-----------|
| Name | Name |
| Rank | Position |
| Signature | Signature |
| Date | Date |
| Time | Time |



ISGOTT Checks during transfer Ship/Shore Safety Checklist

Repetitive checks

| Part 8. Tanker: repetitive checks during and after transfer | | | | | | | | |
|---|---|------|------|------|------|------|------|---------|
| Item ref | Check | Time | Time | Time | Time | Time | Time | Remarks |
| Interval time: hrs | | | | | | | | |
| 8 | Inert gas system pressure and oxygen recording operational | Yes | Yes | Yes | Yes | Yes | Yes | |
| 9 | Inert gas system and all associated equipment are operational | Yes | Yes | Yes | Yes | Yes | Yes | |
| 11 | Cargo tank atmospheres are at positive pressure | Yes | Yes | Yes | Yes | Yes | Yes | |
| 18 | Mooring arrangement is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 19 | Access to and from the tanker is safe | Yes | Yes | Yes | Yes | Yes | Yes | |
| 20 | Scuppers and savealls are plugged | Yes | Yes | Yes | Yes | Yes | Yes | |
| 23 | External openings in superstructures are controlled | Yes | Yes | Yes | Yes | Yes | Yes | |
| 24 | Pumproom ventilation is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 28 | Tanker is ready to move at agreed notice period | Yes | Yes | Yes | Yes | Yes | Yes | |
| 29 | Fendering is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 33 | Communications are effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 35 | Supervision and watchkeeping is adequate | Yes | Yes | Yes | Yes | Yes | Yes | |
| 36 | Sufficient personnel are available to deal with an emergency | Yes | Yes | Yes | Yes | Yes | Yes | |



| Part 8. Tanker: repetitive checks during and after the transfer (cont.) | | | | | | | | |
|--|---|-----|-----|-----|-----|-----|-----|--|
| 37 | Smoking restrictions and designated smoking areas are complied with | Yes | Yes | Yes | Yes | Yes | Yes | |
| 38 | Naked light restrictions are complied with | Yes | Yes | Yes | Yes | Yes | Yes | |
| 39 | Control of electrical devices and equipment in hazardous zones is complied with | Yes | Yes | Yes | Yes | Yes | Yes | |
| 40 41 42 51 | Emergency response preparedness is satisfactory | Yes | Yes | Yes | Yes | Yes | Yes | |
| 54 | Electrical insulation of the tanker/terminal interface is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 55 | Tank venting system and closed operation procedures are as agreed | Yes | Yes | Yes | Yes | Yes | Yes | |
| 85 | Individual cargo tank inert gas valves settings are as agreed | Yes | Yes | Yes | Yes | Yes | Yes | |
| 86 | Inert gas delivery maintained at not more than 5% oxygen | Yes | Yes | Yes | Yes | Yes | Yes | |
| 87 | Cargo tank high level alarms are operational | Yes | Yes | Yes | Yes | Yes | Yes | |
| Initials | | | | | | | | |



| Part 9. Terminal: repetitive checks during and after transfer | | | | | | | | |
|---|---|------|------|------|------|------|------|---------|
| Item ref | Check | Time | Time | Time | Time | Time | Time | Remarks |
| Interval time: hrs | | | | | | | | |
| 18 | Mooring arrangement is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 19 | Access to and from the terminal is safe | Yes | Yes | Yes | Yes | Yes | Yes | |
| 29 | Fendering is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 32 | Spill containment and sumps are secure | Yes | Yes | Yes | Yes | Yes | Yes | |
| 33 | Communications are effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 35 | Supervision and watchkeeping is adequate | Yes | Yes | Yes | Yes | Yes | Yes | |
| 36 | Sufficient personnel are available to deal with an emergency | Yes | Yes | Yes | Yes | Yes | Yes | |
| 37 | Smoking restrictions and designated smoking areas are complied with | Yes | Yes | Yes | Yes | Yes | Yes | |
| 38 | Naked light restrictions are complied with | Yes | Yes | Yes | Yes | Yes | Yes | |
| 39 | Control of electrical devices and equipment in hazardous zones is complied with | Yes | Yes | Yes | Yes | Yes | Yes | |
| 40 41 47 51 | Emergency response preparedness is satisfactory | Yes | Yes | Yes | Yes | Yes | Yes | |
| 54 | Electrical insulation of the tanker/terminal interface is effective | Yes | Yes | Yes | Yes | Yes | Yes | |
| 55 | Tank venting system and closed operation procedures are as agreed | Yes | Yes | Yes | Yes | Yes | Yes | |
| Initials | | | | | | | | |

APPENDIX F– Concordance Table

CONCORDANCE TABLE

Oil Handling Facilities (OHF)

The content of the Oil Pollution Prevention Plan (OPPP) and the Oil Pollution emergency Plan (OPEP) must make reference and meet the regulatory requirements from the following sources :

- Canada Shipping Act, 2001 – Part 8
- Environmental Response Regulations ([SOR/2019-252](#))
- Environmental Response Standards ([TP 14909](#))
- Vessel Pollution and Dangerous Chemicals Regulations ([SOR/2012-69](#))

NOTE : The information contained in this document is for reference only. It is the responsibility of the OHF operator to inquire and become familiar with the provisions of the Act, and to ensure that the plans are compliant with applicable regulations and standards.

Canada Shipping Act, 2001 – Part 8

OHF Requirements

168 (1) Subject to the regulations, the operator of an oil handling facility of a class established by the regulations shall

(a) have an arrangement with a response organization in respect of any quantity of oil that is, at any time, involved in being loaded or unloaded to or from a vessel at the oil handling facility, to a prescribed maximum quantity;

(b) have on site a declaration in the form specified by the Minister that

(i) describes the manner in which the operator will comply with the regulations made under paragraph 182(1)(a),

(ii) confirms that the arrangement has been made, and

(iii) identifies every person who is authorized to implement the arrangement and the oil pollution emergency plan referred to in paragraph (d);

(c) have on site an up-to-date oil pollution prevention plan to prevent a discharge of oil during the loading or unloading of a vessel, which meets the requirements set out in the regulations;

(c.1) submit the up-to-date oil pollution prevention plan to the Minister within the time and in the circumstances set out in the regulations;

(d) have on site an up-to-date oil pollution emergency plan to respond to a discharge of oil during the loading or unloading of a vessel, which meets the requirements set out in the regulations;

(d.1) submit the up-to-date oil pollution emergency plan to the Minister within the time and in the circumstances set out in the regulations; and

(e) have the procedures, equipment and resources required by the regulations available for immediate use in the event of a discharge of oil during the loading or unloading of a vessel.

(2) [Repealed, 2014, c.29, s. 61]

Duty to take reasonable measures – oil handling facilities

- (3) The operator of an oil handling facility referred to in subsection (1) shall take reasonable measures to implement
- (a) the oil pollution prevention plan referred to in paragraph (1)(c); and
 - (b) in respect of an oil pollution incident, the oil pollution emergency plan referred to in paragraph (1)(d).

Update or revise plans

168.1 Despite any other provision of this Part or the regulations, the Minister may direct the operator of an oil handling facility to update or revise an oil pollution prevention plan or an oil pollution emergency plan and to submit the up-to-date or revised plan to the Minister within the time specified by the Minister.

Note: Exceptions to Section 168 of the Canada Shipping Act, 2001 can be found in the Environmental Response Regulations.

Exception – Arrangement with a Response Organization

Section 6 – Paragraph 168(1)(a) and subparagraphs 168(1)(b)(ii) and (iii) of the Act do not apply in respect of oil handling facilities that are located north of latitude 60° N.

Environmental Response Regulations (SOR/2019-252)

| SECTION | REQUIREMENT | REFERENCE (page, section, etc.) |
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| | <u>Oil Pollution Prevention Plan (OPPP)</u> | |
| | Content | |
| 10(a) | The oil pollution prevention plan must contain the following: the position of the person who is responsible for supervising in person the loading or unloading of oil to or from a vessel; | Section 5.3, page 18 |
| 10(b) | the types and quantity of equipment for use in the loading or unloading of oil to or from a vessel and the measures to be taken in order to meet the manufacturer's specifications in respect of the maintenance and certification of that equipment; | Section 3.2.4, page 6; Section 5.3, page 18 |
| 10(c) | the procedures to be followed by the oil handling facility's personnel before and during the loading or unloading of oil to or from a vessel; | Section 5.3, page 18; Appendix D; Appendix E |
| 10(d) | the procedures to be followed in order to meet the requirements of subsection 38(2) of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> and in order to reduce the rate of flow or pressure in a safe and efficient manner when the supervisor on board a vessel gives notice of the stopping of the loading or unloading of oil to or from the vessel to the person referred to in paragraph (a); | Section 5.3, page 18; Section 8, page 28; Section 10, page 40 |

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| 10(e) | the measures to be taken in order to meet the requirements of section 33 of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> and, in the event of failure of the means of communication referred to in that section, in order to ensure that effective two-way communication between the person referred to in paragraph (a) and the supervisor on board the vessel is continuously maintained before and during the loading or unloading of oil to or from the vessel; | Section 8, page 28 |
| 10(f) | a description of the lighting to be provided in order to meet the requirements of section 34 of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> ; | Section 5.3, page 18; |
| 10(g) | documentation that demonstrates that the transfer conduit at the oil handling facility meets the requirements of subsection 35(1) of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> ; | Section 3.2.4, page 6; |
| 10(h) | the measures to be taken in order to meet the requirements of subsection 35(3) of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> ; | Section 3.2.4, page 6 |
| 10(i) | the procedures to be followed by the person referred to in paragraph (a) in order to meet the requirements of subsection 35(4) of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> ; | Section 10, page 40 |
| 10(j) | the procedures to be followed by the operator of the oil handling facility in order to prevent a discharge of oil; | Section 5.3, page 18; |
| 10(k) | a description of the training provided, or to be provided, to the oil handling facility's personnel who are engaged in the loading or unloading of oil respecting the procedures to be followed in order to prevent an oil pollution incident, including the frequency of the training; and | Section 12, page 48 |
| 10(l) | the procedures to be followed for the review and updating of the plan in order to meet the requirements of section 12. | Section 2.1, page 2; Section 12, page 48 |

| SECTION | REQUIREMENT | REFERENCE (page, section, etc.) |
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| | Oil Pollution Emergency Plan (OPEP) | |
| 11(1)(a) | <p>Content</p> <p>The operator of an oil handling facility must demonstrate in its oil pollution emergency plan that the operator has the ability to meet the requirements relating to the procedures, equipment and resources referred to in section 13 by providing the following information:</p> <p>(a) the procedures to be followed in order to respond to an oil pollution incident;</p> | Section 10, page 40 |
| 11(1)(b)(i) | <p>(b) in respect of each type of oil product that is loaded or unloaded to or from a vessel, an oil pollution scenario that</p> <p>(i) in the case of a facility of a class set out in the table to section 5 located at or south of latitude 60° N, describes the procedures to be followed to respond to a discharge of a quantity of that oil product of at least</p> <p>(A) 1 m³, in the case of a class 1 facility,</p> <p>(B) 5 m³, in the case of a class 2 facility,</p> <p>(C) 15 m³, in the case of a class 3 facility, and</p> <p>(D) 50 m³, in the case of a class 4 facility,</p> | NA |
| 11(1)(b)(ii) | <p>(ii) in the case of a facility located north of latitude 60° N, describes the procedures to be followed to respond to a discharge of the total quantity of the oil product that could be loaded or unloaded to or from a vessel, up to a maximum of 10,000 tonnes,</p> | All document, Section 11.4, page 44 |
| 11(1)(b)(iii) | <p>(iii) identifies the assumptions on which that scenario is based,</p> | Section 5.2, page 17 |

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| 11(1)(b)(iv) | (iv) identifies the factors that were taken into account when developing those assumptions, including: (A) the nature of the oil product, | Section 5.1, page 15 |
| | (B) the types of vessels to or from which the oil product is loaded or unloaded, | Section 5.1 and 5.2, page 15-17 |
| | (C) the tides and currents that exist at the facility, | Section 4.3.7, page 12 |
| | (D) the meteorological conditions that exist at the facility, | Section 4.3.8, page 12 |
| | (E) the surrounding areas of environmental sensitivities that would likely be affected by a discharge, | Section 4.3.9, page 12 |
| | (F) the measures to be taken to minimize the effects of a discharge, and | Section 5.3, page 18 |
| | (G) the time necessary to carry out a response to an oil pollution incident in accordance with these Regulations | Section 3.2.1, page 5 |
| 11(1)(c) | (c) the activities to be carried out in the event of an oil pollution incident, the order in which and the time within which those activities are to be carried out, and the name and the position of the persons responsible for carrying them out, taking into account the following priorities: (i) the safety of the facility's personnel, | Section 2.1, page 2; Section 9, page 34 Section 10, page 40 |
| | (ii) the safety of the facility, | Section 2.1, page 2; Section 10, page 40 |
| | (iii) the safety of the communities living adjacent to the facility, | Section 2.1, page 2; Section 10, page 40 |
| | (iv) the prevention of fire and explosion, | Section 2.1, page 2; Section 10, page 40 |
| | (v) the minimization of the effects of a discharge, | Section 2.1, page 2; Section 10, page 40 |
| | (vi) the reporting of the oil pollution incident, | Section 2.1, page 2; Section 10, page 40 |
| | (vii) the environmental impact of a discharge, and | Section 2.1, page 2; Section 10, page 40 |
| | (viii) the measures to be taken for clean-up following the oil pollution incident, including with respect to areas of environmental sensitivities and surrounding ecosystems; | Section 2.1, page 2; Section 10, page 40 |

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| 11(1)(d) | the types and quantity of equipment and resources referred to in subsection 13(2) that are available for immediate use at the location of the discharge; | Section 7, page 23 |
| 11(1)(e) | the name of each person or organization and the location from which the equipment and resources will be obtained in the event of an oil pollution incident, and the manner in which the equipment and resources will be deployed at the location of the incident; | Section 7, page 23 |
| 11(1)(f) | the name and the position of the persons who are authorized and responsible for ensuring that the response to an oil pollution incident is immediate, effective and sustained; | Section 1, page 1; Section 7, page 23 |
| 11(1)(g) | the name or the position of each person who has received oil pollution incident response training or any other training in relation to an oil pollution incident; | Section 12.1 page 48 |
| 11(1)(h) | a description of the training provided, or to be provided, to the oil handling facility's personnel or other individuals in preparation for the responsibilities that they may be requested to undertake in response to an oil pollution incident; | Section 12.1, page 48 |
| 11(1)(i) | an oil pollution incident exercise program established to evaluate the effectiveness of all aspects of the procedures, equipment and resources that are identified in the plan, including exercises to be coordinated with vessels engaged in the loading or unloading of oil, vessels used to respond to oil pollution incidents, response organizations, the Department of Transport and the Canadian Coast Guard; | Section 11, page 43 |
| 11(1)(j) | the measures to be taken by the operator, in accordance with applicable federal and provincial regulations relating to health and safety, to protect the health and safety of personnel and of other individuals who are involved in responding to an oil pollution incident at the operator's request; | Section 2.1 Page 2 Section 10 Page 40 Appendix C Page 55 |
| 11(1)(k) | the procedures to be followed for the review and updating of the plan in order to meet the requirements of section 12; | Section 2.1 Page 2 |
| 11(1)(l) | the procedures to be followed by the operator in order to meet the requirements of section 39 of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> ; and | Section 10 page 40; Section 11.4, page 44 |
| 11(1)(m) | the procedures to be followed by the operator to investigate any oil pollution incident in order to determine the causes and contributing factors and the actions that are needed to reduce the risk of reoccurrence. | Section 9.3, page 38 |
| 11(2) | Other plans The operator must ensure that the oil pollution emergency plan takes into account any contingency plan for its geographical area that may affect the facility's plan, including contingency plans that are issued by the Canadian Coast Guard or provincial or municipal | Section 10.1.2, page 41 |
| 11(3) | Notification — exercise The operator must submit a written description of any exercise referred to in paragraph (1)(i) to the Minister at least 30 days before the day on which it conducts the exercise. | Section 11, page 43 |

| SECTION | REQUIREMENTS | REFERENCE (page, section, etc.) |
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| | Plan Reviews and Updates | |
| 12(1) | Annual review The operator of an oil handling facility must review the oil pollution prevention plan and the oil pollution emergency plan annually and, if necessary, update the plans to ensure that they meet the requirements of section 10 or 11, as the case may be. | Section 2.1 Page 2 |
| 12(2) | Review — events The operator of an oil handling facility must review the oil pollution prevention plan and the oil pollution emergency plan when any of the following events occur and, if necessary, update those plans within 90 days after the day on which the event occurred: (a) any change in the law or in environmental factors that could affect the loading or unloading of oil to or from a vessel; | Section 2.1 Page 2 |
| | (b) any change in personnel involved in the loading or unloading of oil to or from a vessel; | Section 2.1 Page 2 |
| | (c) the identification of a gap in either of the plans after an oil pollution incident or exercise; and | Section 2.1 Page 2 |
| | (d) any change in the business practices, policies or operational procedures of the facility that could affect the loading or unloading of oil to or from a vessel. | Section 2.1 Page 2 |
| 12(3) | Submission of updates to Minister If the operator of an oil handling facility updates the oil pollution prevention plan or the oil pollution emergency plan, the operator must submit the up-to-date plan to the Minister no later than one year after the update. | Section 2.1 Page 2 |
| 12(4) | Record The operator of an oil handling facility must keep a record of the date and the results of each review of the oil pollution prevention plan and the oil pollution emergency plan conducted under subsections (1) and (2), including any updates, and must maintain the record for three years after the day on which it is created. | Document Control, page v |

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| 13(1) | Procedures, Equipment and Resources | |
| | Procedures | Section 10.4, page 42 |
| | The procedures referred to in paragraph 168(1)(e) of the Act must include the following: (a) the immediate shut down of loading or unloading operations and their restart in a manner that would not interfere with the immediate, effective and sustained response to the discharge; | |
| | (b) the reporting of the discharge in accordance with section 133 of the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> ; | Section 10.2, page 41 |
| | (c) the coordination of the oil handling facility's response operation with the activities of the Canadian Coast Guard and federal, provincial and other bodies responsible for, or involved in, the protection of the marine environment; | Section 10.1, page 41 |
| | (d) the taking into account by the operator of the oil handling facility of the priorities set out in paragraph 11(1)(c) during the entire response to the discharge; | Section 2.1, page 2; Section 10, page 40 |
| | (e) the making available of at least one of the persons referred to in paragraph 11(1)(f) to the Department of Transport and the Canadian Coast Guard during the entire response to the discharge; | Section 1, page 1 |
| | (f) the measures necessary to ensure that the operator of the oil handling facility is prepared to respond in the event of a discharge of oil of at least the applicable quantity set out in clauses 11(1)(b)(i)(A) to (D); | Section 3.2, page 5; Section 5.3, page 18; Section 7, page 23; Section 8, page 28; Section 9, page 34 Section 10, page 40; Section 11, page 43 |
| | (g) the deployment of the equipment and resources referred to in subsection (2) at the location of the discharge within the time frames set out in that subsection; and | Section 3.1, page 5 |
| | (h) the undertaking of an investigation of the discharge in order to determine the causes and contributing factors, and the actions that are needed to reduce the risk of reoccurrence. | Section 9.3, page 38 |
| 13(2)(a) | Equipment and resources The equipment and resources that the operator of the oil handling facility must have available for immediate use in accordance with paragraph 168(1)(e) of the Act are those (a) that are required to contain, control, recover and clean up a discharge of oil of at least the applicable quantity set out in clauses 11(1)(b)(i)(A) to (D); and | Section 7, page 23 |
| 13(2)(b) | (b) that can be deployed, if it is possible to do so in a safe, effective and practicable manner, at the location of the discharge, (i) for the purposes of containing and controlling the oil, within one hour after the discovery of the discharge, and | Section 3.1, page 5 |

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| | (ii) for the purposes of recovering the oil and cleaning up, within six hours after the discovery of the discharge. | Section 3.1, page 5 |
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