



AGNICO EAGLE

MELIADINE GOLD PROJECT

ITIVIA OIL HANDLING FACILITY

SD 8-2

Oil Pollution Emergency Plan

APRIL 2014

VERSION 3

FOREWORD

Effective planning ensures that the necessary actions are taken in a structured, logical, safe and timely manner. The Oil Pollution Emergency Plan (OPEP) is a supporting document that ensures necessary actions are taken to reduce or minimize the loss of diesel fuel resulting from unanticipated errors at Agnico Eagle Mines Limited's Itivia Oil Handling Facility; it discusses cleanup actions and mitigation of ship-to-shore fuel transfer. The Plan was prepared using the best information available at the time.

This Plan will be distributed to:

Transport Canada

Box 8550,
344 Edmonton Street (RMW)
Winnipeg, Manitoba, R3C 0P6

Nunavut Impact Review Board

P.O. Box 1360
Cambridge Bay, Nunavut, X0B 0C0

Hamlet of Rankin Inlet

P.O. Box 310
Rankin Inlet, Nunavut, X0C 0G0

IMPLEMENTATION

This Oil Pollution Emergency Plan (OPEP) for Agnico Eagle Mines Limited's Itivia Oil Handling Facility shall be finalized to the satisfaction of Transport Canada in advance of any ship-to-shore diesel fuel transfers and shall come into effect upon the commencement of diesel fuel transfers to the Itivia tank farm. This will follow the completion of its construction.

The completion of the OPEP, including the addition of contacts, will follow the receipt of the Project Certificate issued by the Nunavut Impact Review Board (NIRB) and all necessary authorizations allowing for construction of the proposed oil handling facilities.

OIL HANDLING FACILITY DECLARATION

Pursuant to paragraph 168(1)(b) of the *Canada Shipping Act, 2001*, Agnico Eagle Mines Limited – Meliadine Division declares that:

(a) To comply with regulations made under paragraph 182(a) of the *Canada Shipping Act, 2001*, on the detection of an oil pollution incident that arises out of the loading or unloading of oil to or from a ship, the measures as outlined in the Itivia Tank Farm Facility, Oil Pollution Emergency Plan shall be implemented.

~~(b) in accordance with paragraph 168(1)(a) of the *Canada Shipping Act, 2001*, I have an arrangement with the certified response organization known as¹~~

~~(Name of response organization)~~

The arrangement is with respect to _____ tonnes of oil (Number of tonnes)

and in respect of _____ (Geographic location of the oil handling facility)

¹ NOTE: In accordance with paragraph 168(2) of the *Canada Shipping Act, 2001* and 3(2) of the *Environmental Response Arrangements Regulations*, the requirements under paragraph 168(1)(a) and subparagraph 168(1)(b)(ii) do not apply in respect to the arrangement described in paragraph (b).

~~(c) the persons listed below are authorized to implement the arrangement described in paragraph (b):²~~

² NOTE: In accordance with paragraph 168(2) of the *Canada Shipping Act, 2001* and 3(2) of the *Environmental Response Arrangements Regulations*, the requirements under subparagraph 168(1)(b)(iii) do not apply in respect to the arrangement described in paragraph (c).

(d) the persons listed below in the table are authorized to implement the Oil Pollution Emergency Plan required by paragraph 168(1)(d) of the *Canada Shipping Act, 2001*:

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Names Shift A Team Leader, Emergency Response team	Mailing address, phone numbers and email address
Names Shift B Team Leader, Emergency Response team	Mailing address, phone numbers and email address
Names Health and Safety Coordinators	Mailing address, phone numbers and email address
Names Environmental Coordinators	Mailing address, phone numbers and email address
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* This Table will be finalized once the proposed AEM Itivia Oil Handling Facility in Rankin Inlet is approved by all levels of Government and permitted to start construction.



2014-04-16

Stéphane Robert
Agnico Eagle Mines Limited
Manager, Regulatory Affairs, Nunavut

Date

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DOCUMENT CONTROL

Version	Date	Section	Page	Revision	Author
1	December 2012			First draft of the Oil Pollution Emergency Plan	John Witteman, Env. Consultant, AEM
2	March 2013			DEIS re-submission; rebranding	
3	April 2014	1	2	Updated Figure 1-1	John Witteman, Env. Consultant, AEM
		2.2	5	Complete review of the section	
		4	10	Spills in the marine env.	
			11	Updated Table 4-1	
			12	Liability for marine oil spill	
		5.1	14	No transship	
		6	15	Added mention of the CCG	
		6.1	17-18	Outside spill resources	
		6.3	23	Updated Table 6-3	
		7.1	24	Oil spill response exercises	
		7.2	25	Additional section on spill response equipment	
		9	27	Complete review of the section	
		10	28-29	Details on objectives and priorities in spill response	
		App C		Changed for a concordance table of regulatory requirements	

EXECUTIVE SUMMARY

The Oil Pollution Emergency Plan (OPEP) addresses emergency procedures and personnel and/or contractors involved in the ship-to-shore fuel transfer for the proposed Agnico Eagle Mines Limited's Itivia Oil Handling Facility (OHF; also referred to as the tank farm and laydown area). The OPEP complies with the requirements for procedures, equipment and resources as set out in the *Canada Shipping Act* (s.s. 660.2(4)) specific to the OHF. The OHF will be constructed and operated in accordance with Transport Canada *Arctic Waters Oil Transfer Guidelines* (TP-10783E) and *Oil Handling Facility Guidelines* (TP-12402E). The OHF supervisors will receive training from a certified response organization and as a result will be able to respond to all incidents that might occur at the OHF.

Ship-to-ship transfer of fuel will occur at the anchor site near Panorama Island from the larger tanker to a smaller tanker that can navigate the access passage. The contingency plan associated with this activity is provided through the shipping company's Shipboard Oil Pollution Emergency Plan (SOPEP). An example of SOPEP is presented in Appendix of this plan.

The small tanker coming through the access passage will be anchored in water of sufficient depth to allow for wind direction, draught and tidal changes during transfer. Ship-to-shore fuel transfer will be done using a 300-500-m long floating pipeline. The transfer of diesel fuel will be done by an approved contractor that will use sound, well rehearsed practices, include an adequate number of trained and alert personnel, have sufficient materials, and use well maintained, thoroughly tested equipment. A team of trained personnel on the tanker will be in charge of the tanker fuel transfer equipment while an onshore team will be in charge of the land-based transfer equipment. Emergency Response Teams (ERT) and spill response equipment and supplies will be located on the tanker and onshore near to the transfer point as required by Transport Canada. This will include readily available absorbent material at the flexible hose connections on deck and onshore to quickly address minor spills at predictable minor spill locations. Additionally, AEM will locate a sea can with spill response supplies and equipment at Itivia where it can quickly be accessed in the event of a spill.

During the ship-to-shore transfer, AEM will have personnel on location at all times to monitor the fuel transfer and maintain contact with the tanker's crew. Should problems arise, the ship can be called to shut down the transfer and onshore piping will be closed down. In the event of a spill that escapes containment, diversion booming will be deployed to minimize migration of a spill throughout Melvin Bay. Personnel located at the tank farm and laydown area will be expected to respond to minor spill incidents. The AEM Meliadine ERT will be trained in near shore intervention, and may be available to assist with larger spills in Itivia harbour. The ERT stationed at the Meliadine site would be able to respond within 90 minutes.

Spills within the tank farm will be contained by the bermed, lined areas. Each bermed and lined area will have sufficient storage to hold 110 % of the largest tank. All fuel transfers from the tank farm to tanker trucks and small vehicles will occur on a pad designed to contain any spilled product with the overflow

being directed into the bermed area. Spilled diesel will not have the opportunity to migrate to the marine environment from this area.

This OPEP outlines scenarios and procedures, defines the roles and responsibilities of management and responders, and details the measures taken to prevent spills during transfer.

ACRONYMS

AADNC	Aboriginal Affairs and Northern Development Canada
AEM	Agnico Eagle Mines Limited
CCG	Canadian Coast Guard
CCME	Canadian Council of Ministers of the Environment
DDEAR	Draft Detailed Environmental Assessment Report
DFO	Department of Fisheries and Oceans
ERP	Emergency Response Plan
ERT	Emergency Response Team
ERTC	Emergency Response Team Coordinator
Fuel	P50 Arctic Grade diesel fuel – the only oil product received at the Itivia Oil Handling Facility
HAZCOM	Hazards Communication
HAZMAT	Hazardous Material
HDPE	High-Density Polyethylene
IMO	International Maritime Organization
KIA	Kivalliq Inuit Association
MARPOL	The International Convention for the Prevention of Pollution from Ships, 1973, and the Protocols of 1978 and 1997, as amended from time to time
NT	Northwest Territories
NU	Nunavut
NWB	Nunavut Water Board
OHF	Oil Handling Facility
OPEP	Oil Pollution Emergency Plan
OHS	Occupational Health and Safety Administration
PPE	Personal Protective Equipment
P/V	Pressure Vacuum
QSSE	Quality, Safety, Security and Environment
RCMP	Royal Canadian Mounted Police
SOLAS	Safety of Life at Sea
SOPEP	Shipboard Oil Pollution Emergency Plan
SCP	Spill Contingency Plan
SVP	Senior Vice President
TBD	To be determined
TMSA	Tanker Management Self Assessment
WHMIS	Workplace Hazardous Materials Information System

SECTION 1 • INTRODUCTION

The Oil Pollution Emergency Plan (OPEP) is to set in motion the necessary actions to stop or minimize the loss of diesel fuel resulting from ship-to-shore transfer of fuel at Agnico Eagle Mines Limited's (AEM) proposed Itivia Oil Handling Facility located (OHF) in Rankin Inlet, Nunavut. Additionally, it provides direction to AEM personnel and/or contractors at the proposed Itivia laydown and tank farm, and to AEM's Emergency Response Team (ERT) in emergency spill response situations, in developing oil pollution scenarios, defining the roles and responsibilities of management and responders, and outlining the measures taken to prevent spills during transfer. The OPEP seeks to minimize potential health and safety hazards, environmental damage and cleanup costs.

The OPEP complies with the requirements for procedures, equipment and resources as set out in the *Canada Shipping Act* (s.s. 660.2(4)) specific to the fuel handling facility - the bulk incoming transfer of fuel from ship-to-shore and spill scenarios directly relating to this operation being examples. This Plan is part of the Meliadine Project's Environmental Management System and Draft Environmental Impact Statement submission and as such is a working document that will be reviewed and updated on a regular basis.

This Plan specifically centres on the activities in ship-to-shore transfer of fuel from a small tanker delivering fuel to the proposed AEM Itivia tank farm to be installed in Rankin Inlet. On-site personnel at Itivia can be expected to respond to minor spill incidents¹ that can be contained and cleaned up without assistance, while the AEM ERT or external resources that may assist with larger spills.

The Shipboard Oil Pollution Emergency Plan (SOPEP) is the responsibility of the shipping company²; it covers the ship-to-ship transfer of fuel outside of Melvin Bay as shown on Figure 1-1. The containment and cleanup of inadvertent spills resulting from the tankers in transporting the fuel is the responsibility of the shipping company. In the unlikely event where a large fuel spill becomes unmanageable, the shipping company could call on external resources such as the Canadian Coast Guard (CCG) for assistance. In these situations, AEM would provide whatever assistance it can to the shipping company³.

In the advanced exploration phase of the Meliadine Project AEM's fuel is being delivered to Rankin Inlet by Coastal Shipping Limited, a Division of the Woodward Group of Companies. In 2012 this fuel was stored within the existing tank farm owned and operated by the Petroleum Products Division of the Government of Nunavut. AEM subsequently purchase its fuel requirements from the Petroleum Products Division. The outline of the SOPEP prepared by Coastal Shipping Limited for 2012 is attached in Appendix A.

¹ A minor incident can be controlled and cleaned up readily by the polluter and has little effect on natural resources, the environment, or public property. Source: Environment Canada 2002.

² A copy of the contractor's plan will be obtained by AEM and shared with other regulators and made public once AEM has selected a contractor for the future delivery of fuel to its proposed Meliadine Project.

³ AEM's Emergency Response Team will not be equipped or trained to respond to spills offshore in the marine environment. They will however be able to respond to spills in the near shore area.

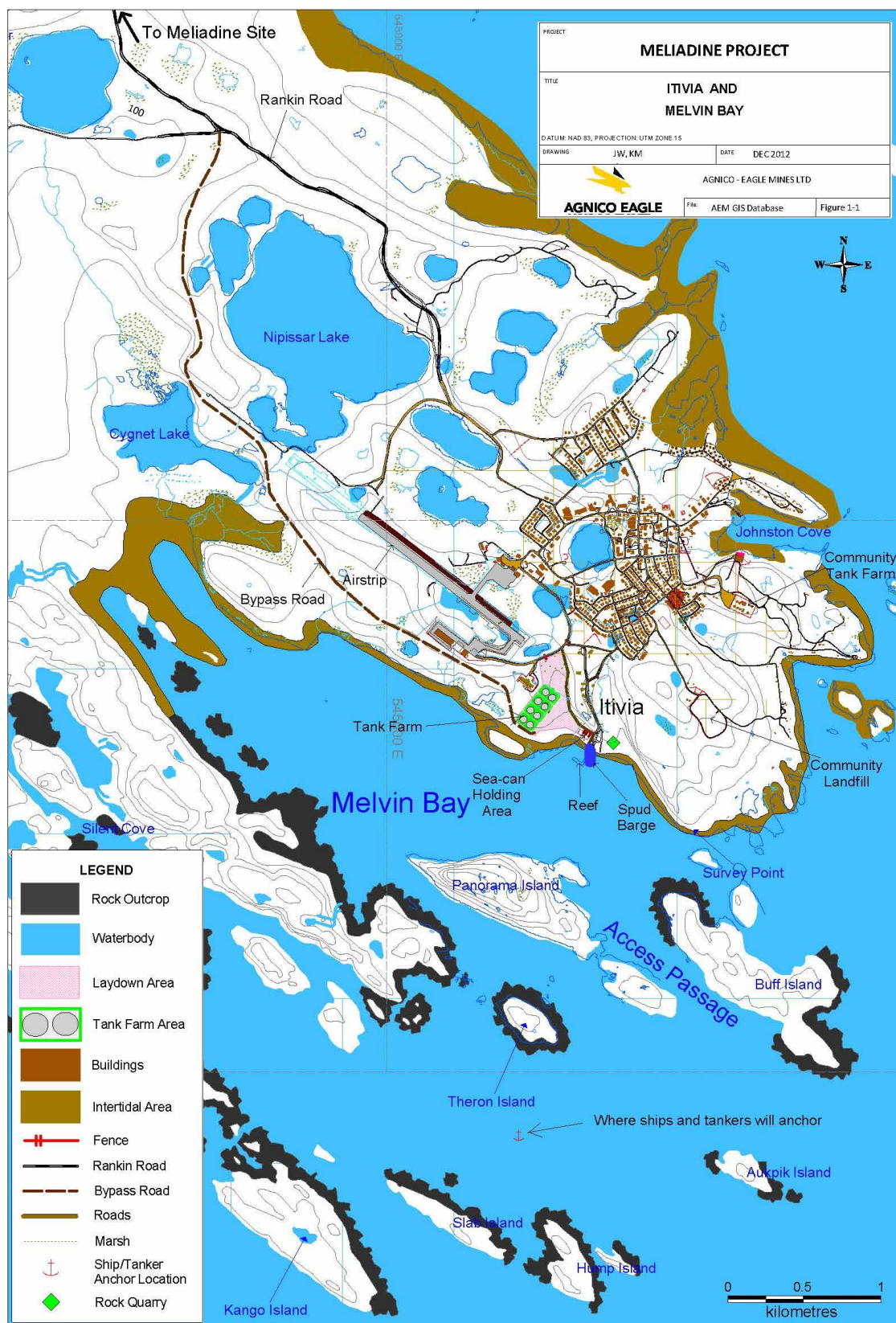


Figure 1-1

AEM's Itivia Oil Handling Facility and Laydown Area

SECTION 2 • FUEL STORAGE FACILITIES AND INFRASTRUCTURE

AEM's proposed tank farm and laydown area is to be located at Itivia in Rankin Inlet on Melvin Bay at latitude 62°48'16.66" N and longitude 92°05'5.32" W, map sheet 055/K16. Its location is shown on Figure 1-1. The proposed fuel tank farm will consist of 8x10-million litre (10,000 m³) diesel fuel⁴ storage tanks all holding P50 grade diesel. The proposed fuel tank farm will be located adjacent to AEM's laydown area, approximately 60 metres from the shore of Melvin Bay at high tide. Power will be provided by Rankin Inlet's electrical power grid for the fuel pump module located next to the tank farm, light towers located throughout the laydown pad and the tank farm, the onsite office, and possibly other infrastructure associated with this site.

The proposed tanks will be contained within an impermeable lined and bermed area (CCME 2003). The tanks will be field-erected steel tanks built to API-650 standards with each bermed area holding two tanks. This area will be capable of containing 110 % of the volume of the largest tank. Each impermeable lined and bermed cell will have the following:

- A granular base for the tank complete with an impermeable 60 mil HDPE liner system and granular dikes;
- Two x 10,000 m³ tanks complete with the required appurtenances, such as stairs, base manholes, water draw offs, re-supply nozzle, suction nozzle, tank lighting, tank level monitoring, lighting, roof manhole, manual gauge hatch, tank temperature and P/V vent; and
- Piping for unloading and loading.

Ancillary infrastructure located outside the bermed areas and being part of the OHF will include:

- Site lighting; and
- One re-supply/dispenser building for loading tanker trucks and other vehicles.

The proposed tank farm will be designed to meet the following standards:

- National Fire Code 2010;
- *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* – 2008; and
- Canadian Council of Ministers of the Environment "*Environmental Code of Practice of Aboveground and Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products* – 2003 (PN1326)".

The OHF will be constructed and operated in accordance with Transport Canada *Arctic Waters Oil Transfer Guidelines* (TP-10783E) and *Oil Handling Facility Guidelines* (TP-12402E). The OHF supervisors will receive training from a certified response organization and as a result will be able to respond to all incidents that might occur at the OHF.

⁴ 1,000 litres = 1 m³ of fuel. Cubic metres are used throughout this document.

A fuel dispensing pad area complete with a dispensing unit will be located in a lined facility with a provision to capture any and all spills at the fueling area and direct them to a containment area provided for the tank farm.

All diesel fuel will be transported to the mine site by tanker trucks on a year-round basis. Tanker trucks will be loaded on the fuel dispensing pad at rates of approximately 50 m³/h. Fuel loading rates for small vehicles will be approximately 3 m³/h. The facility will be completed with temperature compensated metering system to manage fuel flows, safety valve to prevent loss of fuel from the fuel facility, fire extinguishers, building heating and ventilation systems, building lighting systems and control systems for the pumps.

2.1 Route of Tanker, Anchoring Location and Transfer of Fuel

An approved shipping company will be used by AEM to supply and deliver diesel fuel to AEM's tank farm facilities in Rankin Inlet. Currently, Coastal Shipping Limited, a subsidiary of Woodward, is providing this service to AEM's Meadowbank Mine near Baker Lake (an outline of the Coastal Shipping Limited SOPEP is provided as an example in Appendix A) and limited service to Meliadine Gold Project during advanced exploration.

The tanker picking up the fuel will be double hulled, have segregated ballast compartments and would be able to carry up to 20,000 m³ of diesel fuel. If necessary, ballast required during the inward voyage to Rankin Inlet will be obtained in eastern North American maritime waters. Ballast will be picked up while on anchor outside the access passage after offloading the diesel fuel for its outward journey. A total of six (6) tanker loads of fuel can be expected to fill the tanks in the tank farm, cumulatively holding 80,000 m³, and also to supply the Project's fuel needs over the open water season. The Project is forecast to require 122,000 m³ of fuel annually.

The diesel fuel pick-up point will most likely be a refinery on the east coast of North America. The marine transport of fuel to Rankin Inlet will be comprised of four (4) main segments:

- From an east coast refinery along the coast of Labrador to the Hudson Strait;
- Through Hudson Strait to Hudson Bay (see Appendix B for maps showing the general shipping routes to reach Rankin Inlet);
- Across Hudson Bay to Marble Island, some 45 km from Rankin Inlet; and
- From Marble Island to the barrier islands, through the islands to an anchoring point near Panorama Island, outside the access passage leading to Itivia (see Figure 1-1).

It is expected that the large tankers delivering diesel fuel will anchor in the same general location as the dry cargo vessels. Ship-to-ship transfer of fuel will occur at this location from the larger tanker to a smaller tanker that can navigate the access passage. The carrying capacity of the small tanker will be either 7,300 m³ or 10,500 m³. Which one to be used at any one time will be subject to its availability at the time the large fuel tanker is set to deliver fuel to AEM's Itivia tank farm. The small tanker will anchor

directly opposite AEM's proposed spud barge location. From there, a floating pipeline of some 300-500 metres⁵ will connect to a shore-based pipeline for transfer of fuel to the tank farm.

After transferring the diesel fuel to the tank farm, the small tanker will take on ballast in its segregated ballast compartments before sailing out of Melvin Bay to pick up another load of diesel from the large tanker anchored outside the access passage. Ballast could be dispelled as ship-to-ship transfer of diesel occurs and the small tanker is loaded with diesel. This sequence of events will be repeated until the large tanker is empty or the tank farm is full.

Due consideration will be given to prevailing and expected wind, weather, and tide conditions when undertaking ship-to-ship and ship-to-shore fuel transfers. The large tanker anchored near Panorama Island and the small tanker anchored near Itivia will be clear of land and traffic routes and in open water of a depth exceeding the draught of the vessel(s). For ship-to-ship transfers, the ships will be secured alongside or anchored.

Once ship-to-shore transfer operations are underway, the small tanker will discharge at a rate of about 400 m³/h, with a 10,000 m³ tank taking approximately a day to fill. Communication between the shore and the small tanker will be maintained throughout to ensure the safe transfer of the diesel and to avoid the overfilling of the tanks. The ship-to-shore transfer to be used is expected to be similar to that used at communities throughout Nunavut.

2.2 Tides and Currents that Prevail at the Facility

There is a general cyclonic (counter clockwise) current in Hudson Bay with mean monthly residual currents of approximately 4 to 6 cm/sec. In Hudson Bay, stronger currents occur in summer than in winter and more variability occurs at the surface than at depth (Prinsenberg 1986). Based on the navigation charts prepared by Canadian Hydrographic Service (CHS), flow through the Access Passage into Melvin Bay can reach approximately 26 cm/s (0.5 knot; CHS 1997). Tidal range is about 4.6 metres at Panorama Island in Melvin Bay.

2.3 Meteorological Conditions Prevailing at the Facility

Monthly meteorological data has been collected from 1981 to 2009 at the Rankin Inlet A climate station, which is a Meteorological Service of Canada climate station. Snow and rain are combined to give monthly average precipitation. The prevailing winds for the area are generally from the north to north-west and average 23 km/h.

In Table 2-1 below, the meteorological records for the entire year are presented even though AEM will only receive fuel during the open water season – end of July to October. There will not be any shipping requiring ice breaking nor will any ships or barges holding fuel be left to freeze in over the winter.

⁵ The anchoring location will vary based on a number of factors such as tide, wind and draught of the small tanker.

Table 2-1 Summary of Rankin Inlet Meteorological Data

Rankin Inlet A Climate Station (1981 to 2009)					
Month	Monthly Means Air Temperature (°C)	Precipitation (mm)	Mean Monthly Relative Humidity (%)	Average ¹ Wind Speed (km/h)	Most Frequent Direction (8-point compass)
January	-30.9	8.4	66.6	24.3	N
February	-30.1	8.4	67.0	22.5	N
March	-25.1	12.2	70.2	23.4	NW
April	-15.7	20	78.9	22.2	N
May	-5.9	19.1	86.1	22.0	N
June	4.1	28.0	80.8	20.8	N
July	10.5	38.8	77.2	19.9	SE
August	9.7	56.5	81.2	20.4	N
September	3.8	43.8	84.0	22.9	NW
October	-4.6	37.9	86.7	25.2	N
November	-17.2	21.6	77.9	23.5	N
December	-25.9	12.0	70.2	24.0	NW

¹Wind speed record from 2006-2010.

2.4 Surrounding Areas of Environmental Sensitivities

The hamlet of Rankin Inlet is situated on the Kudlulik Peninsula which protrudes into Rankin Inlet of Hudson Bay. Rankin Inlet itself has three (3) main rivers entering it: the Diane River in its northwest, and the Meliadine River and Char River in the northeast. Melvin Bay is fringed with drying flats on the north side and encumbered by islands, islets, reefs and shoal water. The access passage is mostly bedrock.

Itivia is situated on the northeast shore of Melvin Bay as shown in Figure 1-1. Itivia has an intertidal zone of up to 56 metres with the substrate predominately comprised of 70 % gravel/cobble, 20 % fines and 10 % boulders⁶. The substrate at this location was strongly influenced by the addition of gravel to develop the harbour's boat launch. In the open water season, Itivia provides a place for residents to moor and launch their boats. A few cabins are situated across Melvin Bay from Itivia but otherwise there are no buildings on the shore. Itivia is used for the loading and unloading of community supply vessels⁷. In the winter, it is used by residents for snowmobile access to the sea ice in Melvin Bay and beyond.

⁶ Substrate size ranges include boulders (>256 mm), cobble (64-256 mm), gravel (2-64 mm) and fines (<2 mm).

⁷ AEM will maintain a spud barge at Itivia for offloading its dry cargo. The spud barge will be 76 m long and 17 m wide. A crane will be mounted on the spud barge to lift sea cans and larger cargo off barges, pull them alongside and placed on trucks located on the bed of the spud barge. The trucks will drive onto the spud barge using a hinged bridge attached to the spud barge, other end resting on land.

Melvin Bay has a typical biological assemblage of macrophytes, plankton, zooplankton, benthic invertebrate and fish found elsewhere in this area of Hudson Bay⁸. Near shore macrophyte coverage around Melvin Bay is sparse and is predominately rockweed (*Fucus* spp.) and kelp (*Laminaria* spp.). Phytoplankton are predominately dinoflagellates while the zooplankton community is more variable. Incidental invertebrate species are observed and include amphipods, barnacles, unidentified bivalves (e.g., mussels, clams), winkles (*Littorina sitkana*), ascidians (sea squirts), and unidentified crab species. Arctic char were not captured in Melvin Bay during the baseline survey. The predominate fish was Greenland cod followed by slender eelblenny and fourhorn sculpin.

2.5 Measures to Minimize a Diesel Pollution Incident

The small tanker will be anchored offshore in water of sufficient depth to allow for wind direction, draught and tidal changes during transfer.

The transfer of diesel fuel will be completed by an approved contractor that will use sound, well rehearsed practices, include an adequate number of trained and alert personnel, have sufficient materials, and use well maintained, thoroughly tested equipment. A team of trained personnel on the tanker will be in charge of the tanker fuel transfer equipment while an onshore team will be in charge of the land-based transfer equipment. The ERT and spill response equipment and supplies will be located on the tanker and onshore near to the transfer point as required by Transport Canada. This will include readily available absorbent material at the flexible hose connections on deck and onshore to quickly address minor spills at predictable minor spill locations. Additionally, AEM will locate a sea can with spill response supplies and equipment at Itivia where it can quickly be accessed in the event of a spill.

Four-inch (10 cm) steel piping able to accommodate a flow rate of approximately 400 m³/h will lead down to the shore to the tanker from the proposed diesel fuel tank farm. A floating pipeline from ship-to-shore will be connected to the fuel-receiving manifold located onshore using a dry-break coupling(s). All connection points will be protected with save-alls. Other measures to be taken to minimize and prevent spills include:

- During the transfer, constant monitoring will be undertaken for detection of incipient spills and leaks between the tanker and the tank farm;
- Transfer operations will be suspended should any leak be detected;
- The onshore area and ship deck will be well lit as fuel transfers could continue around the clock;
- Minimization of land drainage containing spilled diesel to limit the amount reaching the marine environment;
- A containment boom could be deployed between the onshore transfer point and the small tanker's hull during fuel transfers as a precaution to contain any fuel that may accidentally spill; and
- Regular update of the Oil Pollution Emergency Plan.

⁸ Biological information extracted from 2011 baseline environmental survey of Melvin Bay found in Volume 8 of the DDEAR.

During the ship-to-shore transfer, AEM will have personnel on location at all times to monitor the fuel transfer and maintain contact with the tanker's crew. Should problems arise, the ship can be called to shut down the transfer and onshore piping will be closed down. In the event of a spill that escapes containment, diversion booming will be deployed to minimize migration of a spill throughout Melvin Bay.

Spills within the tank farm will be contained by the bermed, lined areas. Each bermed and lined area will have sufficient storage to hold 110 % of the largest tank. All fuel transfers from the tank farm to tanker trucks and small vehicles will occur on a pad designed to contain any spilled product with the overflow being directed into the bermed area. Spilled diesel will not have the opportunity to migrate to the marine environment from this area.

AEM staff at Itivia and the Emergency Response Team will be trained to quickly respond to any spill thereby reducing their potential impacts.

SECTION 3 • RELATED DOCUMENTS

Management and monitoring plans for the Meliadine Gold Project that provided input to the Oil Pollution Emergency Plan include the following:

- Spill Contingency Plan (SD 2-16);
- Risk Management and Emergency Response Plan (SD 2-15);
- Shipping Management Plan (SD 8-1);
- Shipboard Oil Pollution Emergency Plan⁹; and
- Occupational Health and Safety Plan (SD 9-6).

The cornerstones of contingency planning for AEM are the Spill Contingency Plan (SCP) and the OPEP. Both are stand-alone plans and form part of the Environmental Management and Protection Plan (SD 2-5). These, coupled with the Risk Management and Emergency Response Plan (SD 2-15), describe the processes to be followed in responding to a spill. The OPEP on its own provides the necessary information in the event of a mishap where diesel fuel is inadvertently lost during the transfer of fuel from a tanker vessel to the tank farm at the proposed Itivia Oil Handling Facility.

The OPEP complements the SCP and it should not be construed as superseding it. The SCP addresses a wider scope of operations stretching 30 km from the proposed Meliadine Gold Project site in the north to the proposed Itivia infrastructure in the south. It is inclusive of more than just diesel fuel, covering other hazardous materials such as Jet A, hydraulic fluids, and chemicals.

The Risk Management and Emergency Response Plan (SD 2-15) focuses on responding to all emergencies in a timely and adequate manner. Spills are but one emergency where the AEM Emergency Response Team (ERT) will respond. It commits AEM to being prepared for and providing adequate resources - qualified personnel and equipment - to handle a wide variety of emergency situations.

The Shipping Management Plan (SD 8-1) covers the scope of shipping-related activities for the Meliadine Project. All activities carried out by AEM must consider the attendant risks and be carried out with safety first in mind.

⁹ There will also be a Shipboard Oil Pollution Emergency Plan (SOPEP) which will contain information and operational instructions as required by the *"Guidelines for the development of the Shipboard Marine Pollution Emergency Plan"* as developed by the International Marine Organization. Shipping companies are responsible for this Plan.

SECTION 4 • APPLICABLE ACTS, REGULATIONS AND GUIDELINES

AEM recognises that, in regards to spills in the marine environment:

- The Canadian Coast Guard (CCG) is the lead federal agency for responding to spills in the marine environment and ensuring an appropriate first course of action. CCG also has national and regional marine spills contingency plans that AEM will take into account in its response to marine spills;
- Environment Canada, through its environmental emergencies science table and in-house expertise, is the lead federal agency for providing environmental advice and expertise in the event of a spill; and
- Transport Canada is the governing body for developing guidelines and establishing a regulatory framework for preparedness and response to ship and Oil Handling Facility source spills.¹⁰

This Plan was prepared in accordance with federal legislation outlined in Table 4-1, which lists legislative instruments applicable to AEM's proposed Itivia Oil Handling Facility. Table 4-2 lists international conventions and protocols signed by Canada.

Table 4-1 Applicable Acts, Regulation and Guidelines

Acts	Regulations ¹	Guidelines
Federal Legislation		
<i>Canada Shipping Act, 2001</i> (S.C. 2001, c. 26) [An Oil Pollution Emergency Plan is required under the Act (168(1)d)]	<i>Response Organizations and Oil Handling Facilities Regulations</i> (SOR/95-405) ²	Oil Handling Facilities Standards – TP12402 Environmental Prevention and Response National Preparedness Plan 2008 – TP13585
	<i>Pollutant Discharge Reporting Regulations, 1995</i> (SOR/95-351)	Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants – TP9834E 2009
	<i>Environmental Response Arrangements Regulations</i> (SOR/2008-275)	Arctic Waters Oil Transfer Guidelines, 1997 - TP10783E
	<i>Ballast Water Control and Management Regulations</i> (SOR/2006-129)	Response Organizations Standards – TP 12401E 1995 Guidelines for the Control of Ballast Water Discharge from Ships in Waters under Canadian Jurisdiction (TP 13617)
	<i>Vessel Pollution and Dangerous Chemicals Regulations</i> (SOR/2012-69)	
<i>Fisheries Act</i> (R.S.C. c. F-14)	<i>Marine Mammal Regulations</i> (SOR/93-56)	The Policy for the Management of Fish Habitat
<i>Oceans Act</i> (S.C. 1996, c. 31)		

¹⁰ Adapted from <http://www.transmountain.com/marine-spills>

Acts	Regulations ¹	Guidelines
<i>Species at Risk Act</i> (2002 c.29)		Species at Risk Policies
<i>Marine Liability Act</i> (S.C. 2001, c. 6)	<i>Marine Liability Regulations</i> (SOR/2002-307)	
<i>Canadian Transportation Accident Investigation and Safety Board Act</i> (S.C. 1989, c. 3)	<i>Transportation Safety Board Regulations</i> (SOR/92-446)	
<i>Safe Containers Convention Act</i> (R.C.C. 1985, c. S-1)		
<i>Navigable Waters Protection Act</i> (R.S. 1985 c. N-22)		
<i>Transportation of Dangerous Goods Act</i> (1992, c.34)	<i>Transportation of Dangerous Goods Regulations</i> (SOR/2001-286)	
<i>Arctic Waters Pollution Prevention Act</i> (R.S.C., 1985, c. A-12)	<i>Arctic Waters Pollution Prevention Regulations</i> (C.R.C., c. 354) <i>Arctic Shipping Pollution Prevention Regulations</i> (C.R.C., c. 353)	
<i>Canadian Environmental Protection Act</i> (1999 c.33)	<i>Environmental Emergency Regulations</i> (SOR/2003-307) <i>Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations</i> (SOR/2008-197) <i>Release and Environmental Emergency Notification Regulations</i> (SOR/2011-90)	

¹ Only *Canada Shipping Act's* regulations centered on the environment and that apply to Oil Handling Facility (OHF) and the Oil Pollution Emergency Plan are listed. Legislative instruments not directly applicable to the OHF are not listed.

² There are no response organization dedicated to spill response near Rankin Inlet. AEM and, if needed, the crew of the tanker(s) will respond to spills at the Oil Handling Facility.

Table 4-2 International Conventions and Protocols Signed by Canada

Conventions	
MARPOL 73/78 Annexes	
	Objective of Annex is to Prevent Pollution from:
Annex 1	Oil from ships
Annex 2	Noxious liquid substances carried in bulk
Annex 3	Harmful substances carried by ships in packaged form
Annex 4	Sewage treatment and disposal
Annex 5	Garbage handling
Annex 6	Air Pollution from Ships
International Maritime Dangerous Goods Code	
International Convention for the Safety of Life at Sea, 1974, SOLAS 74	

Liability for a marine oil spill depends on the source of the spill:

- AEM's is the responsible party if diesel is released on-shore at the Oil Handling Facility and would be accountable for the clean-up of the spill. This applies to spills that remain on-shore and those that find their way into the marine environment; and
- The tanker would be the responsible party if diesel were released from the ship and/or the floating pipeline, and would be accountable for the clean-up of the spill. This applies to spills that remain solely in the marine environment and those that wash up on the shore.

AEM will annually review all the relevant Acts, Regulations and Guidelines to ensure that each are accurately addressed in the OPEP.

A detailed concordance table outlining compliance with associated regulatory requirements for the operation of the Level 2¹¹ Itivia Oil Handling Facility is presented in Appendix C.

¹¹ See Section 5.1 Facility Category.

SECTION 5 • OIL HANDLING STANDARDS

5.1 Facility Category

Oil handling facilities are categorized according to their maximum oil transfer rate in cubic metres per hour, in respect of the oil product loaded or unloaded to or from a ship, as describe in Table 5-1.

Table 5-1 Oil Handling Facility Categories

Category of Oil Handling Facility	Maximum Oil Transfer Rate (m ³ /h)
Level 1	150
Level 2	750
Level 3	2,000
Level 4	More than 2,000

Source: CCG 1995

AEM's proposed tank farm at Itivia will be a Level 2 based on a diesel fuel transfer rate of approximately 400 m³/h. AEM will not tranship diesel it receives at Itivia.

5.2 Nature of the Oil Product

No fuel other than P50 diesel will be stored at the Itivia tank farm. All other fuels such as Jet A, gasoline and possibly other grades of diesel will be purchased from the Government of Nunavut's Petroleum Products Division. Their tank farm is not located at or near Itivia, and ship-to-shore transfers are carried out from another marine location near Johnson Cove in Rankin Inlet as shown on Figure 1-1.

SECTION 6 • SPILL RESPONSE PROCEDURES

The proposed Itivia OHF will be located is about 30 km by road from the Meliadine Gold Project site. This will allows the same spill response resources to be shared by the Meliadine site and the Itivia facility. A single AEM Emergency Response Team will be available to respond to all spill incidents. The spill response sequence is schematically shown in Figure 6-1¹².

Spill response procedures found in the SCP (SD 2-16) are the same as presented here. In this OPEP, the procedures have nonetheless been abridged to only address spills of diesel fuel at the proposed Itivia facility and along the proposed hamlet bypass road running along the shore of Melvin Bay. The response to spills in the marine environment will take into account CCG's national and regional Marine Spills Contingency Plans.

The initial spill response priorities should be as follows:

SAFETY FIRST**1) Respond quickly**

- a) Identify the spilled material.
- b) Ensure safety of yourself and others.
- c) Shut off ignition sources - NO SMOKING.
- d) Attend to injured.
- e) Assess the severity of the spill.
- f) Call for assistance.
- g) On-site Manager mobilizes Emergency Response Team.
- h) Keep unnecessary people out of the area.
- i) Wear impervious clothing, goggles, and gloves.
- j) Approach spill from upwind IF SAFE TO DO SO.
- k) Stop product flow if possible.
- l) Contain and recover spill as soon as possible.
- m) Notify the regulatory authorities.

2) Respond Safely

- a) Do not contain gasoline or aviation fuel if vapours might ignite.
- b) Allow gasoline or aviation fuel spills to evaporate.

¹² Names associated with the various positions listed in Figure 6.1 cannot be supplied at this early juncture.

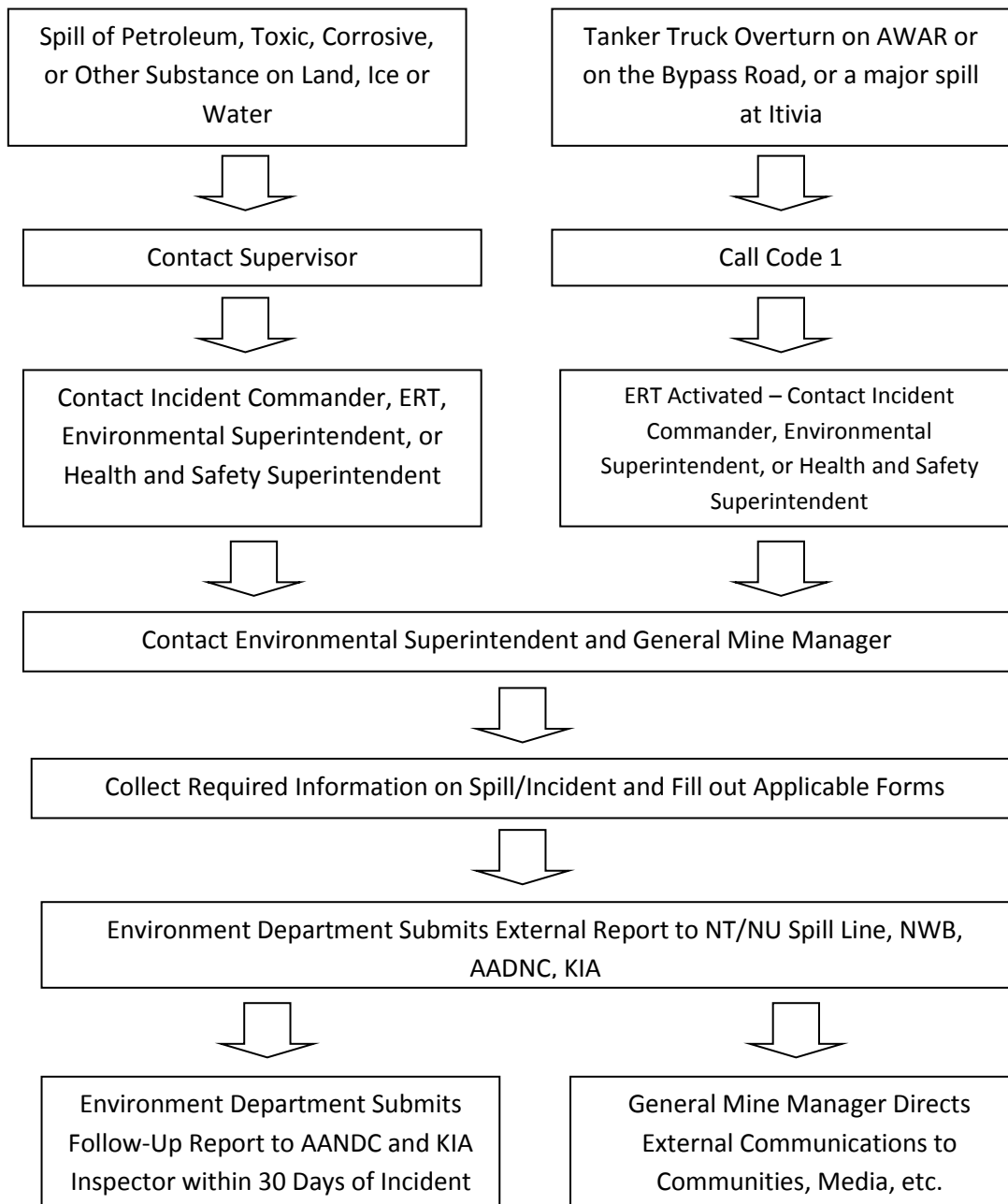


Figure 6-1 Spill Response Reporting Sequence

A proficient and timely response to a spill will be dependent on the following:

- Compiling and exercising contingency and emergency plans regularly and thoroughly, to familiarize all personnel involved with the essential needs and hazards of such operations;
- Immediately activate the OPEP in response to a spill;
- Safeguard life and property;
- Take immediate actions to lessen the environmental impact of the spill; and
- Ensure prompt and accurate reporting of diesel spills to enable responsible authorities to mobilize resources and take appropriate measures, if required, to lessen the impact of such an event.

For that purpose, AEM will locate a sea can with spill response equipment at Itivia that will include booms that can rapidly be deployed to limit the spread of any spill on water. The ERT stationed at the Meliadine site will be able to respond within 90 minutes.

The first person (First Responder) to notice, or come in contact with, any spill situation either initiates a Code 1 (in the case tanker truck overturns on the bypass road or AWAR) or reports to his/her immediate supervisor (in the case of spills on land, ice or water). The supervisor is responsible to report the incident to the designated Incident Commander for a major spill or to the Environment Department for a minor spill. A Code 1 is initiated in the instance a tanker truck over turns, and the Incident Commander will respond in conjunction with the ERT. Major responsibilities such as initial coordination, spill cleanup and mobilizing the ERT are part of the Incident Commander's duties.

The Incident Commander will contact the Environment Superintendent and/or General Mine Manager or designate, who in turn will inform the SVP, Environment and Sustainable Development. After all information has been collected, the Environment Superintendent or designate will submit a spill report and follow-up spill report to the NT/NU Spill Line, Nunavut Water Board (NWB), Kivalliq Inuit Association (KIA), Canadian Coast Guard (CCG)¹³, and Aboriginal Affairs and Northern Development Canada (AANDC). Incidents that require media communications will be the responsibility of AEM General Mine Manager or designate.

6.1 Outside Spill Resources

AEM and contractor personnel at Itivia will be trained to response to minor spills if it is safe to do so. This would be done without activating the SCP (SD 2-16), the OPEP or the Risk Management and Emergency Response Plan (ERP; SD 2-15). Should it be proven necessary to activate the ERP, the ERT located at the proposed Meliadine Mine can realistically be on site within 90 minutes, ready to commence containment and cleanup activity.

Outside spill response resources are also available should AEM's and the ships spill response resources prove insufficient. The Canadian Coast Guard has seven sea cans of spill containment, recovery and storage equipment in Rankin Inlet. This equipment could, with limitations, be available to AEM

¹³ Only spills in the marine environment will be reported to the Canadian Coast Guard.

emergency response team upon request to CCG¹⁴. However, CCG maintains that: *“the polluter shall not rely on Canadian Coast Guard resources to fulfill its response nor shall Canadian Coast Guard equipment be identified in the polluter’s response plan as part of their capacity to respond. The Federal Monitoring Officer should not consider Canadian Coast Guard resources when assessing the polluter’s ability to respond.”* AEM spill response equipment and supplies held at the Oil Handling Facility, the Meliadine River and at the mine site are expected to suffice for spills.

Additionally, the lead federal or territorial agency can ask for assistance from the Environmental Emergencies Science Table chaired by Environment Canada¹⁵. The Science Table would assemble departments and/or agencies with spill response expertise related to the spill’s unique challenges, which may involve providing the lead agency with specific response strategies.

The Canadian Coast Guard also has national and regional spill response plans, which monitors or provides a coordinated and integrated response to a marine pollution incidents. In particular, the *Central and Arctic Regional Response Plan* (CCG 2008) was designed to serve as a guide to the Canadian Coast Guard staff and relevant stakeholders involved in marine spill responses in the North. The Plan outline the framework the Canadian Coast Guard will implement during the response to a marine pollution incident as lead agency while managing a response or monitoring a polluter led response. It also establishes procedures when acting as a resource agency for pollution incidents.

6.2 Emergency Response Team

AEM will have an ERT¹⁶ at its Meliadine Gold Project trained and responsible for controlling the large spills including spills from tanker truck overturns along the hamlet bypass road and AWAR, the proposed Itivia laydown and tank farm, and for assisting with medical and other emergencies that may occur at site. Team members will attend regular training sessions.

6.2.1 First Responder

The person who has caused a spill or is the first to observe the spill is the First Responder. The responsibilities of the First Responder are as follows:

- In case of a tanker truck overturn, initiate a Code 1. Remain on radio to provide guidance to the ERT;
- In case of spill to land, ice or water, contact the supervisor to report the incident;
- Identify and contain the spill, IF SAFE TO DO SO; and
- Participate in spill response as a member of the cleanup crew.

¹⁴ The key to the sea cans is held by the RCMP in Rankin Inlet. Permission to use the equipment must first be obtained from the CCG (1 800 265-0237) before its use. The emergency response team must have certification and training in the use of the equipment before CCG can give its permission.

¹⁵ The contact number for the Environmental Emergencies Science Table is 514 496-7319.

¹⁶ A similar team exists at the Meadowbank Mine.

6.2.2 Supervisor

The responsibilities of the Supervisor are as follows:

- Initial assessment of the severity of the incident;
- Contact the Incident Commander;
- Gather facts about the spill; and
- Participate in spill response as a member of the cleanup crew.

6.2.3 Incident Commander

Responsibilities of the Incident Commander are as follows:

- Assume complete authority over cleanup personnel and the spill scene, as well as assume responsibility for all mitigation efforts;
- Evaluate the initial situation and assess the magnitude of the problem;
- Activate the initial response plan;
- Alert and assemble key personnel in the response team, as deemed appropriate, to handle the situation;
- In consultation with the Environment Superintendent or designate, develop the overall plan of action for containment and cleanup of the specific incident, direct and implement the plan;
- Ensure assigned responsibilities are carried out and the activities of team members are coordinated;
- Assess the requirement for people, equipment, materials, and tools to contain the spill in light of what resources are immediately available - urgency will depend on the nature of the spill;
- In consultation with the Environment Superintendent or designate, mobilize any additional resources that may be required and arrange for the transportation of necessary personnel and/or materials to the site.

6.2.4 Emergency Response Team Coordinator

The responsibilities of the Emergency Response Team Coordinator (ERTC) are as follows:

- Mobilize all ERT personnel, equipment, personal protective equipment (PPE) and supplies as required to the site of the spill;
- Assist the Incident Commander in obtaining any additional resources not available on site;
- Ensure that appropriate PPE is worn properly;
- Assist in developing and implementing emergency response training programs and exercises; and
- Ensure that all spill response personnel receive adequate training to fulfill their responsibilities as part of the ERT.

6.2.5 Environment Superintendent or Designate

The Environment Superintendent or designate is responsible for implementing and maintaining the SCP. In addition, the Environmental Superintendent's or designate's responsibilities in the case of a spill are to:

- Liaise with the Incident Commander;
- Provide technical advice on the anticipated environmental impacts of the spill;
- Advise on the effectiveness of various containment, recoveries, and disposal options, and suggest the most appropriate approach;
- Prepare and submit any formal reports to regulators and AEM management detailing the occurrence of a spill;
- Contact the Senior Vice President - Environment and Sustainable Development immediately in case of a major spill;
- Act as the spokesperson with regulatory and government agencies; and
- If authorized by the General Mine Manager, act as a spokesperson with the public and media, as required.

6.2.6 General Mine Manager or Designate

The General Mine Manager or designate is required to inform team members of the detailed nature of the operations to be performed in the event of a facility malfunction causing a spill during the operation phase. The responsibilities of the General Mine Manager or designate are as follows:

- Liaise with AEM personnel resources and keep them informed of cleanup activities; and
- Assist the Incident Commander and ERT as needed, particularly in obtaining any additional resources not available on site for spill response and cleanup.

6.2.7 Health and Safety Superintendent or Designate

The following are the responsibilities of the Health and Safety Superintendent or designate in conjunction with the Training Department:

- Maintain emergency and health and safety records;
- Assist in conducting emergency spill response exercises;
- Track all emergency and health and safety training that on-site staff have received, and when retraining will be required;
- Notify the Incident Commander (related to ERT) when retraining is required;
- Ensure that employees are retrained in appropriate emergency response skills, Workplace Hazardous Materials Information System (WHMIS), Hazard Communication (HAZCOM), Occupational Health and Safety Administration (OHSA), first aid, and respirator fit-testing prior to expiry of existing training certification; and
- Consult with appropriate organizations regarding re-training requirements and schedules.

6.2.8 On-Site Health Care Providers

On-site medics are responsible for the following:

- Providing on-site first aid and other medical support; and
- Providing additional training for ERT members.

In addition to the health care providers on site, the Rankin Inlet health professionals could be called for assistance, if required. They may become the first to respond to injury or serious health related incidents at the proposed Itivia facility because of their proximity to the facility.

6.3 Spill Response Team Contact Information

Internal contact information is contained in Table 6-1 for all AEM personnel involved in spill recovery and subsequent reporting. Table 6-2 provides contact information for AEM contractors present at the Project site. Important external contacts such as regulatory agencies and health organizations are listed in Table 6-3. Table 6-4 provides contact information for external contractors should incident warrant assistance from outside sources¹⁷.

Table 6-1 Internal Contacts

Title	Name	Telephone No.
Senior Vice President, Environment and Sustainable Development	Louise Grondin	416 847-8656 Mobile: 819 724-2020
General Mine Manager	To be determined (TBD)	
Health and Safety Superintendent or Assistant Superintendent	TBD	
Emergency Response Team	TBD	
Environment Superintendent	TBD	
Environment Coordinator or Environment Department	TBD	
Incident Commander	TBD	
On-Site Medics	TBD	
Site Security	TBD	

¹⁷ These tables will be finalized once the proposed Itivia OHF has been approved for construction by the appropriate regulatory agencies.

Table 6-2 Contractor Contacts

Title	Telephone No.
Nolinor Aviation Services	Protocol Agent 867 793-4610 ext. 6808
First Air	867 446-1744
Calm Air	867 793-2873
Shipping Company	TBD
Explosives Manufacturer	TBD

Table 6-3 External Contacts

Organization/Authority	Telephone No.	Fax No.
NT-NU 24-Hour Spill Report Line	867 920-8130 spills@gov.nt.ca	867 873-6924
Workers Safety and Compensation Commission	867 979-8637	867 873-6924
Kivalliq Inuit Association	867 920-8130	867 873-6924
Nunavut Water Board	867 360-6338	867 360-6369
AANDC Inspector	867 975-4548	867 979-6445
Environment Canada, Enforcement Branch	867 975-4644	867 975-4594
Department of Fisheries and Ocean (DFO) – Nunavut Regional Office	867 979-8000	867 979-8039
Manager, Environmental Protection, Government of Nunavut	867 975-7748	867 975-5981
Kivalliq Health Services – Rankin Inlet Health Centre after hours	867 645-8300 867 645-6700	
Rankin Inlet Hamlet Office (Senior Adm. Officer)	867 645-2895	
Rankin Inlet Fire Emergency	867 645-2525	N/A
RCMP 24-Hour Emergency Number	867 645-1111	
Canadian Coast Guard (in the event of a spill to the marine environment)	800 265-0237	519 337-2498

Table 6-4 External Spill Response Contractor Phone Numbers

Contractor	Telephone No.	Area of Expertise
Local		
M & T Enterprises, Rankin Inlet	867 645-2778	Fuel Transportation

SECTION 7 • TRAINING, SPILL EQUIPMENT AND SPILL EXERCISE

7.1 On-Site and Itivia Personnel

A designated ERT consisting of on-site personnel will be established at AEM's Meliadine Project site. AEM will ensure that the ERT is trained and staffed in sufficient number so that the ERT is present at all times. All members of the team will be trained and familiar with emergency and spill response resources, including their location and access, the SCP, the OPEP and appropriate emergency spill response methodologies. The ERT will have up to 40 members, each of whom will undertake routine training on a monthly basis.

The training will include the following, but not be restricted to:

- A review of the spill response plan, Oil Pollution Emergency Plan and responsibilities of the ERT members;
- The nature, status, and location of fuel and chemical storage facilities at the mine site and Itivia;
- The on-site and off-site spill response equipment and how to use it;
- Emergency contact lists;
- Worker health and safety during emergency interventions;
- Communication methods and signals;
- Desktop exercises of "worst case" scenarios;
- Emergency evacuation;
- Fires or explosions;
- Emergency equipment and use;
- Personal protective equipment and clothing;
- Marine shoreline recovery operations; and
- The likely causes and possible effects of spills.

Every employee at the Meliadine Project will receive spill and waste management training during their initial site orientation so they are able to respond to small spills and raise the alarm if a larger response is required. ERT members will receive more extensive HAZMAT training and learn how to respond while wearing personal protective clothing. The Human Resources Department will record the training completed by all personnel, including those for the ERT and employees working at Itivia.

As AEM's OHF is approximately 35 km from the mine site, OHF managers, employees and contractors¹⁸ will receive training targeting diesel fuel containment and clean-up on land and in the near-shore environment. This will include but not be limited to the use of booms, absorbent materials, and boat and motor. Some of the training could be carried out in conjunction with the tanker's crew delivering the diesel fuel.

An oil spill response exercise program will be established to evaluate the effectiveness of all aspects of the procedures at the OHF, equipment and resources that are identified in the oil pollution emergency plan, including exercises to be coordinated with the tankers delivering the fuel. This program will be

¹⁸ AEM will not use volunteers in spill response activities.

carried out over a three-year period that will begin on the day on which the OHF is designated under the *Shipping Management Act* and over each three-year period thereafter.

The Environment Department will regularly provide tool-box sessions to give information on spill response and reporting procedures.

7.2 Spill Response Equipment and Supplies at Itivia

Spill response equipment and supplies suitable for spills that may occur at the Oil Handling Facility will be stored at Itivia. Table 7-1 provides a provisional list of spill response and containment equipment to be located at Itivia.

Table 7-1 Spill Equipment and Supplies to be Located at Itivia

Quantity	Equipment
3	Empty drums (sealed)
2	Mini berm 36"x 36"
2	4 drums berm 4'x 8'
4	Tarp 20'x 30'
4	Tarp 30'x 50'
10	Oil spill absorbent pads
5	Universal absorbent boom 5"x 10' (for hydro-soluble chemical)
5	Universal absorbent boom 8"x 10' (for hydro-soluble chemical)
5	Petroleum base absorbent boom 5"x 10' (for petroleum product)
3	Maritime barrier (baffle)
5	ABS pipe: 10' long x 4" diameter
2	Cell-U-Sorb (absorbent)
2	Amerisorb peat moss (absorbent)
2	Oil gator absorbent
1	Plug patties
4	Quatrex bags
2	Fork lift crate
4	Hand shovel
1	Crowbar chisel
1	Ice breaker chisel
1	Sledge hammer
15	Rod bar 4'
1	½ drum containment
1	Boat with motor and gasoline jerry can

SECTION 8 • REPORTING

To ensure compliance with Section 36(3) of the *Fisheries Act*, all spills of fuel or hazardous materials, regardless of quantity, into a water body or onto ice will be reported immediately to the NT-NU 24-HOUR SPILL REPORT LINE (phone 867 920-8130, fax 867 873-6924, spills@gov.nt.ca). Spills to the marine environment will also be reported to the Canadian Coast Guard (phone 800 265-0237, fax 519 337-2498). Others to receive the spill report include the KIA, Hamlet of Rankin Inlet, and DFO.AEM will also report in writing any marine incident involving oil to the Transport Canada Marine Safety office in Winnipeg as required under the *Vessel Pollution and Dangerous Chemicals Regulations*.

SECTION 9 • TREATMENT AND DISPOSAL

AEM anticipates setting a goal of completing any on-water response within 10 days. The recovered fuel and waste collected during the on-water response will be taken to the mine site for processing. Some may be incinerated in the Mine's incinerator while the rest would be stored and prepared for shipment under the *Transportation of Dangerous Goods Regulations* for transport south to a certified waste management company for treatment, recycling and/or disposal in another provincial or territorial jurisdiction.

SECTION 10 • SPILL SCENARIOS AND RESPONSE STRATEGIES

AEM will strive to prevent any accidental spills and take all reasonable steps to minimize the risk of spill incidents and their impact on the environment. Response personnel will have safety and spill response training. Use of PPE around water will be part of this training; this will include personal floating devices. The spill response procedures outlined in the OPEP will be meshed with those for the Spill Contingency Plan to ensure a coordinated response that meets both the on-shore and marine requirements.

The Oil Handling Facilities Standards, 1995 say in part: *“The following is the minimum size of an oil pollution incident in respect of each single oil product loaded or unloaded to or from a ship, for which a response needs to be described in the oil pollution emergency plan”*. As AEM’s OHF is a Level 2 facility, a response to a spill of 5 m³ (or 21 barrels) will be required as per the *Response and Oil Handling Facilities Regulations, 12(2)(b)*. It should be noted that the only product being offloaded at AEM’s OHF is diesel fuel. Also, there will not be loading of tankers nor transshipment of diesel fuel.

In many southern marine locations there are private sector response organizations dedicated to spill response on behalf of shipping companies. No such organization exists in Rankin Inlet, and spill response rests with AEM and/or the ship. As a result, AEM will store spill response equipment and supplies at Itivia (see Section 7.2). AEM will also hold additional spill response equipment and supplies near the Meliadine River, some 7 km from Itivia, and at the mine site, some 35 km away. Additionally, the tanker will carry spill response supplies and equipment.

The response to a spill will escalate with its severity and extent. A 5-m³ spill, described in the scenarios below, would be considered major, be it in the marine environment or on land. The objectives in responding to a spill of this size are to (1) contain the spill to as small an area as possible and (2) mitigate its effects afterward. Spill clean-up (3) will begin directly after secession of the spill and after what was spilled is contained.

AEM’s priorities when responding to a spill in the marine environment includes:

(a) the safety of the facility's personnel. This will be accomplished by stressing safety first in training and frequently thereafter. An individual or ERT should only approach a spill if it is safe to do so. Response staff will be trained in safety procedures;

(b) the safety of the facility. The proposed tank farm will be designed to meet the following standards:

- National Fire Code 2010;
- *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* – 2008; and
- Canadian Council of Ministers of the Environment *“Environmental Code of Practice of Aboveground and Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products – 2003 (PN1326)”*.

The laydown area and the tank farm will be located within a fence to deter vandalism. Access to all laydown area, including tank farm area, will be possible with firefighting equipment;

(c) the safety of the communities living adjacent to the facility. There are no buildings or homes in the immediate vicinity of the facility (see Figure 1-1), save one owned by National Defence. In the event of a spill, community members will be kept far from the spill scene to ensure their safety;

(d) the prevention of fire and explosion. The OHF's design standards as describe in (b) will ensure the prevention of fire and explosion. The product offloaded and stored at Itivia will be diesel. The use of the floating pipeline and on-shore steel piping will minimize the risk of fire and explosion. Fire extinguishers will be located at the fueling station for vehicles, and tanker trucks will carry basic spill response supplies and equipment;

(e) the minimization of the oil pollution incident. This will be accomplished by following procedures outlined in Section 2.5;

(f) the notification and reporting of the oil pollution incident. Spills will be reported on the NT/NU 24 hour spill line. The Environment Superintendent will be the point-of-contact in responding to regulatory officials and his/her phone number will be included in the spill report;

(g) the minimization of environmental impact of the oil pollution incident. If necessary, following secession of the spill and its clean-up, the environmental impacts of the spill will be monitored; and

(h) the requirements for cleaning up the oil pollution incident. The clean-up of the spill will begin directly after secession of the spill and will continue until the clean-up meets with the satisfaction of the relevant federal and/or territorial inspector(s). AEM's goals would be clean-up 100 metres of shoreline per day and on-water response be completed within 10 days.

These priorities will be meshed with the initial response priorities presented in Section 6.1.

P50 diesel is a bright oily substance that has a low viscosity. It spreads rapidly on the water, has a low solubility in salt water (60 mg/L), and a high evaporation rate as described in the text box below. At Itivia, the wind is largely from the NW to N and the current in the access passage is 0.93 km/h to the south.

Predicted Evaporation Rate of Spilled Diesel

$$\text{Weight Percent Evaporation} = (5.8 + 0.045T)\ln(t)$$

where T = water temperature

t = time in minutes

After a time span of 60 minutes at a surface temperature of 5°C, up to 25 weight percent of the spilled is evaporated.

After 240 minutes, or 4 hours, the weight percent of the diesel that would have evaporated would be 33 weight percent.

As a result of the properties of diesel and the environmental conditions that predominate at Itivia, the spill response will aim to stop the spilled product from spreading across Melvin Bay to the south shore and into the access passage¹⁹. This could include activating the Shipboard Oil Pollution Emergency Plan. The tanker would have response equipment on board and a fully trained crew in spill response. This, coupled with a shore-based response under the OPEP, would ensure sufficient resources are available to control and recover as much diesel fuel as feasibly possible.

There are a number of safeguards in operating the ship-to-shore pipeline, these include:

- Save-all trays to capture any minor spills at the ends of the floating pipeline;
- Dry-break couplings at both ends of the floating pipeline;
- Possibly a pressure alarm system to detect leaks or malfunctioning; and
- The crew on the tanker and AEM's OHF staff and/or ERT team will be responsible to provide spill response and spill recovery as needed.

Five scenarios are considered and described in the following section, these being:

1. A leak at the ship-based end of the floating pipeline resulting in the maximum loss of 100 to 600 litres of diesel fuel;
2. A leak at the shore-based end of the floating pipeline resulting in the maximum loss of 20 to 600 litres of diesel fuel;
3. A major failure in the floating pipeline with 5,000 litres of fuel lost to the marine environment due to a rupture;

¹⁹ Appendix 8.2-B of Volume 8 presents a complete marine spill risk assessment.

4. A major failure outside the tank farm resulting in the loss of 5,000 litres of diesel fuel²⁰; and
5. The bypass road parallels the shoreline of Melvin Bay and a tanker truck holding 40,000 litres of diesel fuel turns over with its contents migrating towards the marine environment.

In most instances, AEM personnel and/or contractors will be able to respond to the spill. If necessary, backup can be requested by calling for the assistance of the AEM Emergency Response Team that is stationed at the Meliadine Project site located 30 km away. The ERT can be at Itivia within 90 minutes to assist and, if deemed necessary or called upon, may lead the shore-based spill response.

²⁰ Loss of diesel within the bermed and lined areas of the tank farm will be contained and recovered without any impact on the environment.

Scenario 1: Loss of diesel fuel onboard the tanker**Quantity spilled: 100 to 600 litres**

Appropriate Actions	Resources
<ol style="list-style-type: none"> 1. Immediately stop the ship-to-shore transfer of diesel and not restart fuel transfer until the spill is stopped and contained 2. Try to contain the spilled diesel on the deck and keep it from flowing overboard into the marine environment. 3. Containment boom is manned to prevent the escape of diesel outside the boom. 4. If necessary, place a diversion boom outside the containment boom to stop the diesel from getting onto the beach. 5. Spread absorbent material on the spill to capture it. 6. For larger amounts of spilled materials on water, use a skimmer to collect the spilled diesel and afterwards use absorbents to capture for residual amounts. 7. Monitor any diesel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary. 8. If diesel reaches the beach, excavate the contaminated beach material and take it to the biopile treatment area at the Meliadine site. 9. Notify local and regulatory authorities. 	<ol style="list-style-type: none"> a. Crew on the tanker trained in spill response. b. Crew from the large tanker anchored outside the access passage. c. AEM's shore-based personnel trained in spill response and recovery. d. Emergency Response Team to take control of the shore-based spill response and recovery. e. Spill response equipment and supplies maintained on-board the tanker and also in the sea can located at Itivia. f. Save-alls placed under the pipeline manifolds to collect minor spills. g. Shore-based power boat for ship's crew to position booms. h. Skimmer to recover spilled diesel on sea water. i. Heavy equipment such as excavators, back hoes, vacuum trucks, and dump trucks.

Scenario 2: Loss of diesel fuel onshore**Quantity spilled: 20 to 600 litres**

Appropriate Actions	Resources
<p>1. Immediately stop the ship-to-shore transfer of diesel and not restart fuel transfer until the spill is stopped and contained. 2. Close all valves to the tank farm.</p> <p>3. Place a berm of any material between the spill and the high tide mark to stop the migration of the diesel to the marine environment, or dig a trench and line it with plastic sheeting between the spill and the high tide mark to capture the spilled diesel and use a vacuum truck to recover it.</p> <p>4. If the spill reaches the water, place a sorbent boom along the shoreline to collect and contain the spill next to the beach and to stop its spread.</p> <p>5. For smaller quantities of diesel, spread absorbent materials on the spill to capture it.</p> <p>7. For larger amounts of spilled materials, use a skimmer to collect the spilled diesel contained within the booms and afterwards use absorbents to capture residual amounts.</p> <p>8. Monitor any free floating diesel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary.</p> <p>9. Excavate contaminated soil and move it to the biopile treatment area at the Meliadine site.</p> <p>9. Notify local and regulatory authorities.</p>	<p>a. Crew on the tanker trained in spill response.</p> <p>b. Crew from the large tanker anchored outside the access passage.</p> <p>c. AEM's shore-based personnel trained in spill response and recovery.</p> <p>d. Spill response equipment and supplies maintained on-board the tanker and also in the sea can at Itivia.</p> <p>e. Save-all placed under the pipeline connection to collect minor spills.</p> <p>f. Shore-based power boat for ship's crew to position booms and spread absorbent materials.</p> <p>g. Emergency Response Team to take control of the shore-based spill response.</p> <p>h. Skimmer to recover spilled diesel on sea water.</p> <p>i. Heavy equipment such as excavators, back hoes, vacuum trucks, and dump trucks.</p>

Scenario 3: Loss to the marine environment**Quantity spilled: 5,000 litres**

Appropriate Actions	Resources
<ol style="list-style-type: none"> 1. Immediately stop the ship-to-shore transfer of diesel and not restart fuel transfer until the spill is stopped and contained. 2. Containment boom is manned to prevent the escape of diesel. 4. Place a sorbent boom within the containment boom to collect and prevent the diesel from getting onto the beach. 5. Deploy skimmer to recover as much diesel as possible and spread absorbent material afterwards to capture any residual diesel remaining. 6. Monitor any free floating diesel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary. 7. If diesel reaches the beach, excavate the contaminated beach material and move it to the biopile treatment area at the Meliadine site. 8. Notify local and regulatory authorities. 	<ol style="list-style-type: none"> a. Crew on the small tanker trained in marine spill response. b. Crew from the large tanker anchored outside the access passage. c. AEM's shore-based personnel trained in near shore spill response and recovery. d. Emergency Response Team trained for near shore spill response. e. Spill response equipment and supplies maintained on-board the tanker, in AEM sea can located at Itivia and the Coast Guard sea can of spill response equipment and supplies located in Rankin Inlet. f. Skimmer to recover spilled diesel. g. Additional booms to place outside the containment boom. h. Shore-based boat for ship's crew to position booms and spread absorbent material. i Heavy equipment such as excavators, back hoes, vacuum trucks, and dump trucks for waste materials. j. If necessary, contact the CCG for assistance under the Regional Response Plan (CCG 2008) and/or Environment Canada's Environmental Emergencies Science Table for advice.

Scenario 4: A major spill outside the tank farm area**Quantity spilled: 5,000 litres**

Appropriate Actions	Resources
<ol style="list-style-type: none"> 1. Immediately stop the ship-to-shore transfer of diesel and not restart fuel transfer until the spill is stopped and contained. 2. Close all valves to the tank farm. 3. Place a berm of any material between the spill and the high tide mark to stop the migration of the diesel to the marine environment or dig a trench and line it with plastic sheeting between the spill and the high tide mark to capture the spilled diesel and use a vacuum truck to recover it. 4. If the spill reaches the water, place a sorbent boom along the shoreline to collect and contain the spill next to the beach. 5. For smaller quantities of diesel in the water, spread absorbent materials on the spill to capture it. 7. For larger amounts of spilled materials, use a skimmer to collect the spilled diesel contained within the booms and afterwards use absorbents to capture residual amounts. 8. Monitor any free floating diesel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary. 9. Excavate contained soil and move it to the biopile treatment area at the Meliadine site. 10. Notify local and regulatory authorities. 	<ol style="list-style-type: none"> a. Crew on the tanker trained in spill response. b. AEM's shore-based personnel trained in spill response and recovery. c. AEM's Emergency Response Team. d. Spill response equipment and supplies maintained on-board the tanker and also in the AEM sea can located at Itivia. e. Save-all placed under the pipeline connection to collect minor spills. f. Shore boat for ship's crew to position booms and spread absorbent materials. g. Activate the Emergency Response Team to take control of the shore-based spill response. h. Skimmer to recover spilled diesel on sea water. i. Heavy equipment such as excavators, back hoes, vacuum trucks, and dump trucks. j. If necessary, contact the CCG for assistance under the Regional Response Plan (CCG 2008) and/or Environment Canada's Environmental Emergencies Science Table for advice.

Scenario 5: Tanker truck rolls over along the bypass road next to Melvin Bay**Quantity spilled: 40,000 litres**

Appropriate Actions	Resources
<ol style="list-style-type: none"> 1. Call a Code 1 to mobilize the Emergency Response Team trained in responding to tanker mishaps along roads. 2. If the tanker is not empty, seal the leak if possible but ONLY IF IT SAFE TO DO SO. 3. AEM Itivia personnel to take initial actions IF IT SAFE TO DO SO. 2. Place a berm of any material between the spill and the shore line to stop the migration of the diesel to the marine environment or dig a trench or sumps between the spill and the high tide mark, line them with plastic sheeting to capture the spilled diesel and use a vacuum truck to recover it. 4. If the spill reaches marine water, place a boom along the shoreline to contain the spill next to the beach to stop its spread. 5. For smaller quantities of diesel in the water, spread absorbent materials on the spill to capture it. 7. For larger amounts of spilled materials, use a skimmer to collect the spilled diesel contained within the booms and afterwards use absorbents to capture residual amounts. 8. Monitor any free floating diesel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary. 9. Excavate contained soil and move it to the biopile treatment area at the Meliadine site. 10. Notify local and regulatory authorities. 	<ol style="list-style-type: none"> a. AEM's shore-based personnel trained in spill response to take initial actions. b. AEM's Emergency Response Team to take control of the spill site. c. Spill response equipment and supplies stored in AEM's sea can at Itivia. d. Shore-based boat for ship's crew to position booms and spread absorbent materials. e. Skimmer to recover spilled diesel on sea water. f. Heavy equipment such as excavators, back hoes, vacuum trucks, and dump trucks. g. If necessary, contact the CCG for assistance under the Regional Response Plan (CCG 2008) and/or Environment Canada's Environmental Emergencies Science Table for advice.

SECTION 11 • PREVENTIVE MEASURES

AEM recognises that spill prevention is more desirable than any modern efficient cleanup measures after the fact. Preventive measures have been adopted in relation to any transport, transfer, use and storage of diesel fuel. The tankers carry a Shipboard Oil Pollution Emergency Plan (SOPEP) as per the MARPOL 73/78 requirement under Annex I²¹. All ships with 400 GT and above must carry a SOPEP as per the norms and guidelines laid down by the International Maritime Organization (IMO).

A SOPEP contains the following things (Marine Insight 2012):

- The action plan contains duty of each crew member at the time of spill, including emergency muster and actions;
- General information about the ship and the owner of the ship, etc.;
- Steps and procedure to contain the discharge of oil into the sea using SOPEP equipments;
- On-board reporting procedure and requirement in case of oil spill;
- List of authorities to contact and reporting requirements in case of oil spill. Authorities like port control, oil cleanup team, etc. are to be notified;
- Drawing of various fuel lines, along with other oil lines on-board vessel with positioning of vents, save-all trays, etc.;
- General arrangement of ship, which includes location of all the oil tanks with capacity, content, etc.; and
- The location of the SOPEP locker and contents of the locker with a list of inventory.

The Spill Contingency Plan (SD 2-16), Risk Management and Emergency Response Plan (SD 2-15) and the Oil Pollution Emergency Plan (SD 8-2) identify potential causes of emergencies and provides for the development and implementation of strategies to minimize the likelihood of the same.

As described in the SCP, exercises are part of training for the ERT. This will include comprehensive spill response exercise to practice the use of spill response equipment, including the use of booms and skimmers. Loud noises will be used to discourage marine birds from landing within the spill area.

As necessary, the OPEP will be updated on a regular basis based on the results of spill exercises, changes to the infrastructure at the proposed Itivia OHF, changes to procedures, laws, environmental factors and other variables. The updated OPEP will be distributed to the AEM Emergency Response Team, Transport Canada, the KIA, Rankin Inlet and other agencies as appropriate.

²¹ An example of a SOPEP is provided in Appendix A.

REFERENCES

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- Canadian Coast Guard (CCG). 2008. Regional Response Plan. Central and Arctic Region.
- Canadian Coast Guard (CCG). 2011 Marine Spills Contingency Plan, National Chapter.
<http://www.ccg-gcc.gc.ca/folios/00025/docs/national-response-plan-2011-eng.pdf>
- Canadian Hydrographic Service (CHS). 1997. Navigation Chart 5628 - Rankin Inlet including Melvin Bay and Prairie Bay.
- CCME. 2003. Environmental Code of Practice of Aboveground and Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products (PN1326).
- Environment Canada. 2002. Arctic Regional Environmental Emergencies Team (REET) Contingency Plan.
- Marine Insight. 2012. What is Ship Oil Pollution Emergency Plan (SOPEP)? Available on-line:
<http://www.marineinsight.com/misc/maritime-law/what-is-ship-oil-pollution-emergency-plan-sopep/#ixzz21B2YvDTW> <http://www.marineinsight.com/misc/maritime-law/what-is-ship-oil-pollution-emergency-plan-sopep/#ixzz21B1dDGL5>
- Prinsenberg, S.J. 1986. The circulation pattern and current structure of Hudson Bay. Canadian Inland Seas, edited by I.P. Martini, pp. 187-204. New York: Elsevier.

Shipboard Oil Pollution Emergency Plan²²

The requirements for a Shipboard Oil Pollution Emergency Plan are covered in the Quality, Safety, Security and Environment (QSSE) management system of the shipping contractor/partners. This QSSE management system is comprised of several manuals on various topics and is schematically presented below in Figure A-1.

Also, the QSSE documentation and manuals that include the listed requirements are summarily referenced below.

AEM shall present an Oil Pollution Emergency Plan for all Project-related shipping, in connection with the SOPEP (Standard Shipboard Oil Pollution Emergency Plan), the Wildlife Mitigation and Monitoring Plan, and other related plans as applicable. This plan will should include the following:

Table A-1 Standard Shipboard Oil Pollution Emergency Plan

Applicable Environmental Legislation, Regulations Acts and Guidelines Associated with Shipping	Shipping Contractor/Partners QSSE Management System References
International legislation, such as: MARPOL Convention, Protocols and Annexes, as set out by the International Maritime Organization (IMO, 2008; MARPOL 73/78).	Environmental legislations are included in the QSSE Management System which covers, among others, MARPOL and International Management Code for the safe operation of ships and for pollution prevention (ISM Code).
Canadian legislation such as: <i>Canada Shipping Act</i> , <i>Arctic Waters Pollution Prevention Act</i> (e.g., the Zone/Date System, the Arctic Ice Regime Shipping System, Ice Navigators, if applicable).	Those regulations are included in the QSSE manuals, including Arctic water certification and requirements.
How the Proponent and its shipping contractors/partners intend to either meet or exceed these requirements for both barging and deep sea shipping operations and for all marine shipping alternatives.	Requirements of the QSSE Management System meet and exceed necessary legal requirements and are including the far reaching Tanker Management Self Assessment (TMSA) and Green Marine programs.
Description of basic contingency planning associated with the marine transportation component of the project, particularly in relation to the movement of oil, explosives and other hazardous materials.	Contingency planning is covered in the Office Contingency Plan, Vessel Contingency Plan and Shipboard Oil Pollution Emergency Program (SOPEP) and also through specific contingency plan developed as required.
Provide a hazard identification analysis of the barge and ship routes and a preliminary risk analysis of the marine routes under consideration along with intended methods of mitigating marine transportation risks.	Most hazards of Arctic navigation are included in our extensive Arctic Navigation Guide which is complemented by a written risk assessment for each voyage permitting proper additional measures to be implemented.
Discussion of proposed safety measures.	Safety measures are included in the Health, Safety and Environmental Instruction Manual.

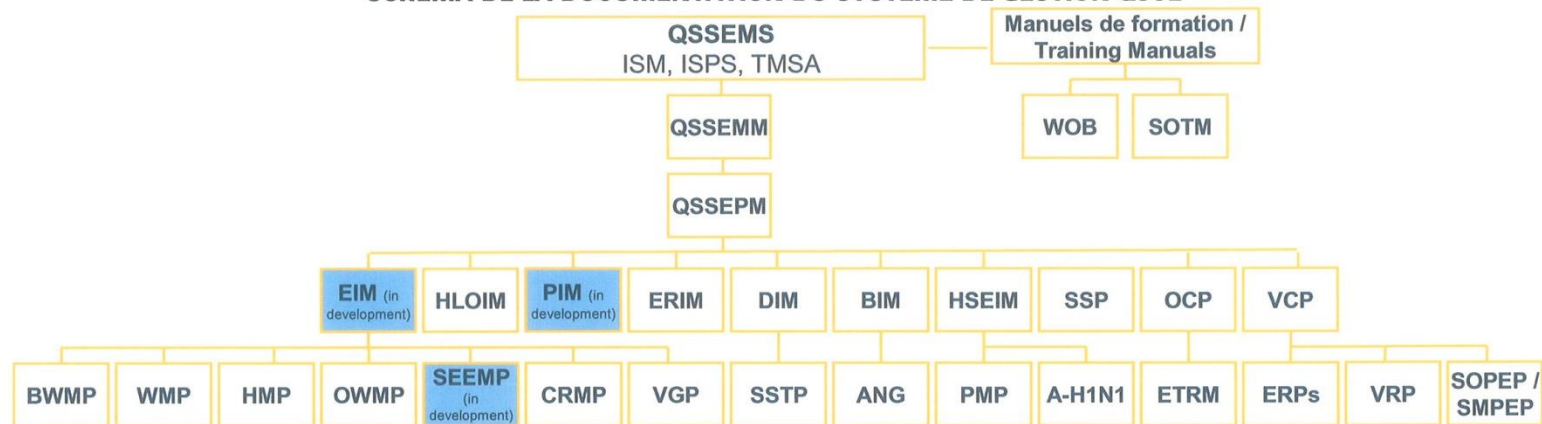
²² This Plan was developed by Coastal Shipping Limited, a Division of the Woodward Group of Companies for their use.

Applicable Environmental Legislation, Regulations Acts and Guidelines Associated with Shipping	Shipping Contractor/Partners QSSE Management System References
Disposal plans and management for onboard waste including solid waste and sewage/grey water while docked at the dock facility and while in transit. Plans should include discussion on how the Proponent and its shipping contractors/partners intend to either meet or exceed legislation and/or regulations requirements.	Proper procedures are included in the Waste Management Plan, Engine Room Instruction Manual and by commitment to the Green Marine Program that meets and exceeds regulatory requirements.
Ballast water management plan for all Project shipping, with indication of the proposed ballast water exchange locations in mid-ocean, at the dock facility in Rankin Inlet, and alternative exchange zones within waters under Canadian jurisdiction. Include associated implications for regulatory compliance.	The regulatory requirements of ballast water management are all included in the Ballast Water Management Plan specifically developed for each vessel and approved by Transport Canada.
Proposed measures to eliminate or reduce the risk of invasive aquatic and non-aquatic species being introduced into Canadian waters as a result of shipping.	Those risks are included in the Ballast Water Management Plan and by commitment through the Green Marine Program best practices. Ballast water exchange is performed by every vessel coming from outside the Exclusive Economic Zone waters.
Discussion of whether the shipping route or part of the proposed shipping route is a compulsory or non-compulsory pilotage area, and associated implications for regulatory compliance if applicable.	Vessels comply with pilotage regulations.
<p>Marine wildlife mitigation and onboard monitoring plans, including:</p> <ul style="list-style-type: none"> • Applicable guidelines, monitoring protocols, and reporting/action procedures; • Measures to minimize the potential interactions between marine mammals and marine vessels; • Description of how interactions between marine mammals and shipping operations will be dealt with. 	Monitoring and mitigation plans are developed for each specific project as required.
Details regarding the proposed procedures for accident, malfunctions and incident management and reporting, including accidental spills of fuel and chemicals along the shipping routes, and from the accidental grounding/stranding of ships along the shipping routes. This should include a discussion of the preparedness of adequate resources to respond to a large fuel spill from a cargo vessel in transit, with reference to the SOPEPs.	Procedures for such accidents/incidents are included in the Office Contingency Plan, Vessel Contingency Plan and Shipboard Oil Pollution Emergency Program (SOPEP) approved by Transport Canada. An emergency team is also set up.
Measures to mitigate potential impacts to the safety of persons traveling boats along Project shipping routes.	Those types of measures are included in the Bridge Instruction Manual.
Smuggling prevention measures.	The Shipping Company has a Drug & Alcohol Policy stating that vessels are operating as "dry ships". Also, Ship Security Plan includes access control to the vessel.
Identified third party liabilities.	Proper insurance coverage is undertaken.
Measures intended to mitigate potential socio-economic impacts as results of shipping.	Appropriate socio-economic measures will be applied as required.

Where the reference to SOPEPs contained in the NIRB's guidelines refers to the following:

Guidelines	Reference
<ul style="list-style-type: none">Requirements of national laws and regulations, as well as international regulations and standards for proposed shipping operation of the Project;	All laws and regulations are included in the SOPEP, which is approved by Transport Canada.
<ul style="list-style-type: none">Marine transportation to be used for the Project including fuel tankers, container ships, barges, tugs, and any other marine vessels;	Every vessel required to have a SOPEP have one, duly approved by Transport Canada, onboard.
<ul style="list-style-type: none">Discussion regarding the relationship between SOPEPs and the Canadian Coast Guard's Regional Response Plan, including identification of potential for the Regional Response Plan to be adapted to the Project;	If the project goes forward, the shipping contractor commits to have the proper discussion with the Canadian Coast Guard and response organization in order to adapt the Company response procedures.
<ul style="list-style-type: none">Procedures for accident/incident reporting and principle emergency response; and,	Procedures are included in the Office Contingency Plan and Vessel Contingency Plan.
<ul style="list-style-type: none">Parties (e.g., the Proponent, marine vessel operators and possible third parties) who carry out emergency actions.	We comply with regulations in regards to response organization contracts.

QSSE MANAGEMENT SYSTEM – DOCUMENTATION DIAGRAM SCHÉMA DE LA DOCUMENTATION DU SYSTÈME DE GESTION QSSE



A-H1N1 : Plan de continuité relatif à la grippe A-H1N1 / A-H1N1 Influenza Continuity Plan
 ANG: Arctic Navigation Guide / Guide de navigation dans l'Arctique
 BIM : Bridge Instruction Manual / Manuel d'instructions de la passerelle
 BWMP: Ballast Water Management Plan / Plan de gestion des eaux de ballast
 CRMP: Cargo Residue Management Plan / Plan de gestion des résidus de cargaison
 DIM : Deck Instruction Manual / Manuel d'instructions du pont
 EIM : Environmental Instruction Manual / Manuel d'instructions environnementales
 ERIM : Engine Room Instruction Manual / Manuel d'instructions de la salle des machines
 ERPs : Emergency Response Plans / Plans des mesures d'urgences
 ETRM : Emergency Team Response Manual / Manuel d'intervention de l'équipe d'urgence
 HLOIM : Heavy Lift Operation Instruction Manual / Manuel d'instructions pour les opérations de levage de charges lourdes
 HMP : Halocarbon Management Plan / Plan de gestion des halocarbures
 HSEIM : Health, Safety and Environment Instruction Manual / Manuel d'instructions santé, sécurité et environnement
 ISM : International Management Code for the Safe Operation of Ships and for Pollution Prevention / Code international de gestion de la sécurité des navires et la prévention de la pollution
 ISO : International Standardization Organization / Organisation internationale de normalisation
 ISPS : International Ship and Port Security
 OCP : Office Contingency Plan / Plan d'urgence bureau
 OWMP : Oily Water Management Plan / Plan de gestion des eaux huileuses
 PIM : Passenger Instruction Manual / Manuel d'instructions relatives aux passagers

PMP : Pest Management Plan / Plan de gestion des organismes nuisibles
 QSSE : Quality, safety, security and environment / Qualité, sécurité, sûreté et environnement
 QSSEMM : QSSE Management Manual / Manuel de gestion QSSE
 QSSEMS : QSSE Management System / Système de gestion Qualité, sécurité, sûreté en environnement (SGQSSE)
 QSSEPM : QSSE Procedures Manual / Manuel des procédures QSSE
 SEEMP : Ship Energy Efficiency Management Plan / Plan de gestion d'efficacité énergétique
 SMPEP: Shipboard Marine Pollution Emergency Plan / Plan d'urgence en cas de pollution du milieu marin par des substances liquides nocives causées par des navires
 SOPEP: Shipboard Oil Pollution Emergency Plan / Plan d'urgence de bord contre la pollution par les hydrocarbures
 SOTM : Safety Officer Training Manual / Manuel de formation d'officier de sécurité
 SSP : Ship Security Plan
 SSTP : Ship to Ship Transfer Plan / Plan de transfert navire à navire
 TMSA : Tanker Management Self Assessment
 VCP : Vessel Contingency Plan / Plan d'urgence navire
 VGP : Vessel General Permit
 VRP : Vessel Response Plan
 WMP : Waste Management Plan / Plan de gestion des déchets
 WOB : Welcome Onboard Booklet / Feuillet Bienvenue à bord

Figure A-1 QSSE Management System – Documentation Diagram

APPENDIX B • MARINE HYDROGRAPHIC CHARTS

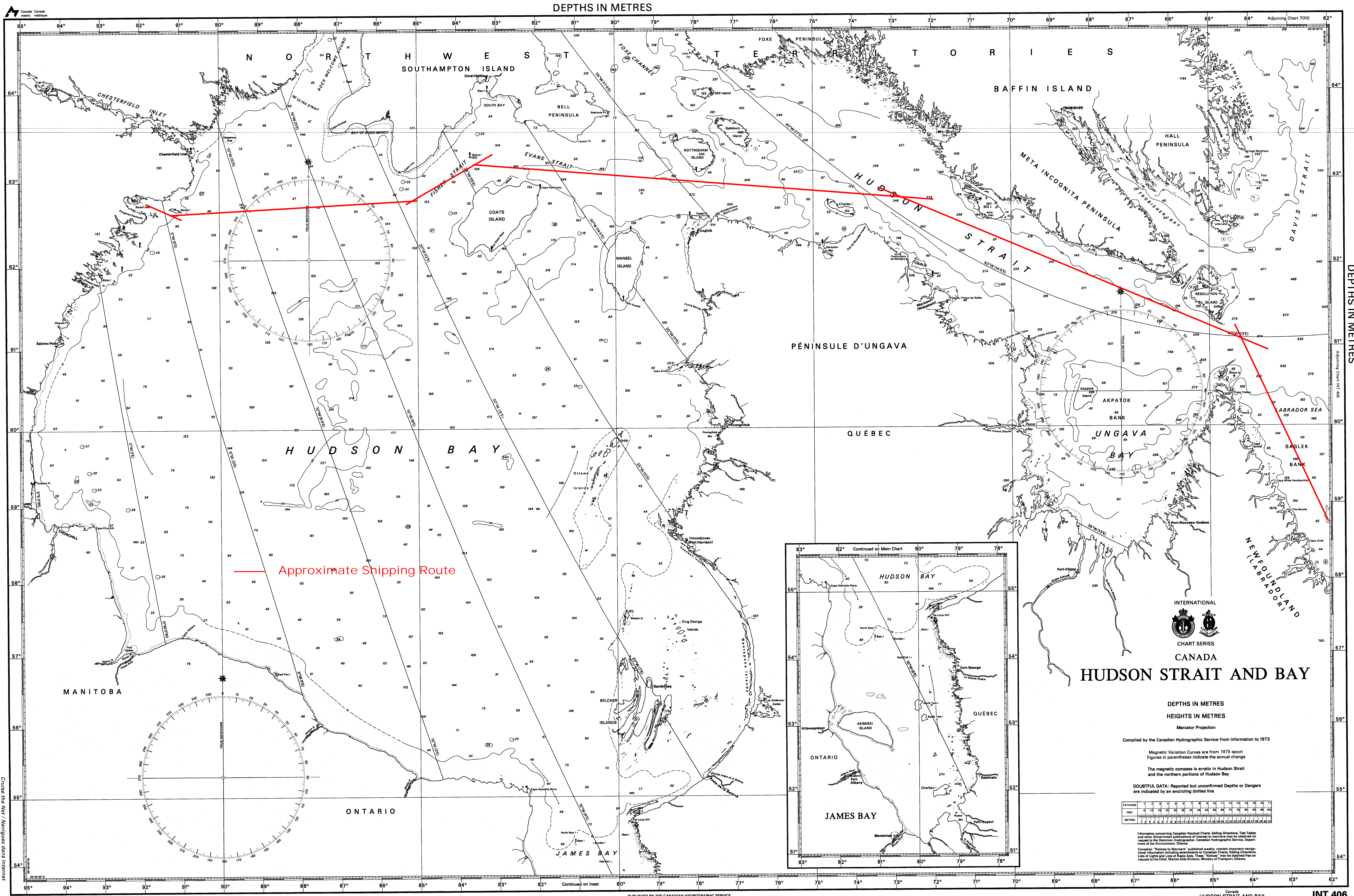
Chart 5002 Hudson Bay and Hudson Strait

Chart 5629 Marble Island to Rankin Inlet

Chart 5628 Rankin Inlet including Melvin Bay and Prairie Bay

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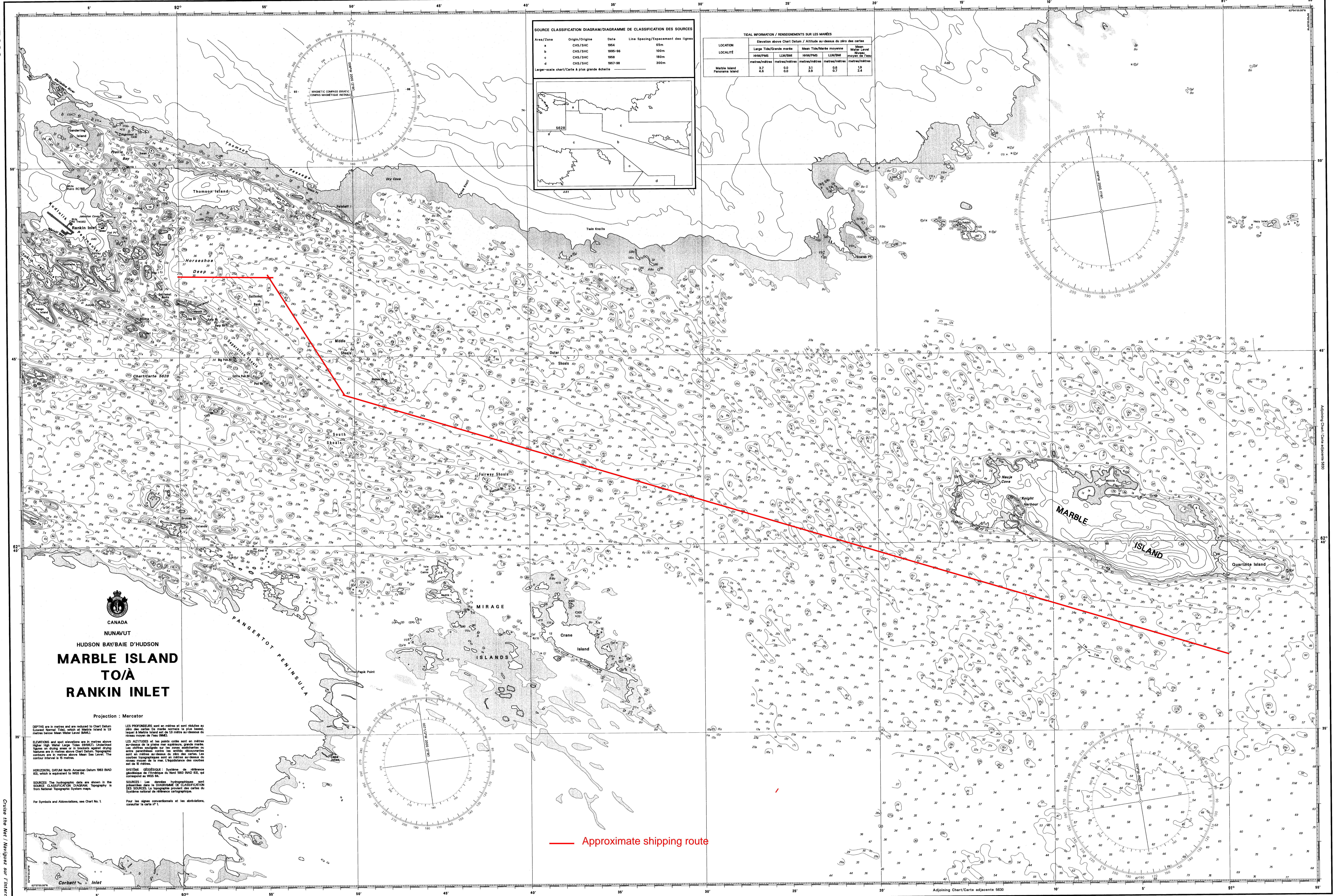
Consult the Net / Naviguez dans Internet
www.charts.gc.ca www.chartes.gc.ca



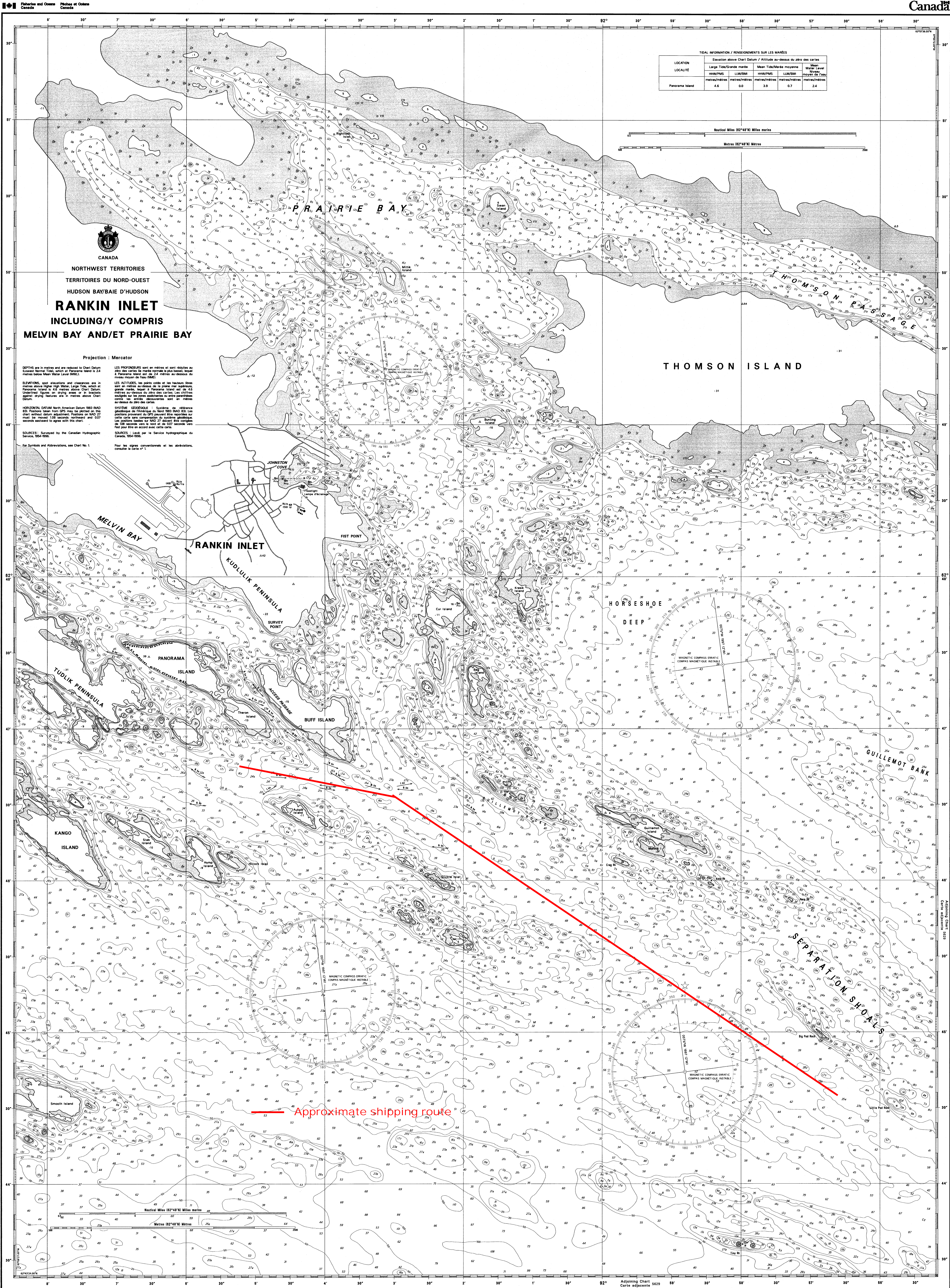
DEPTHS IN METRES

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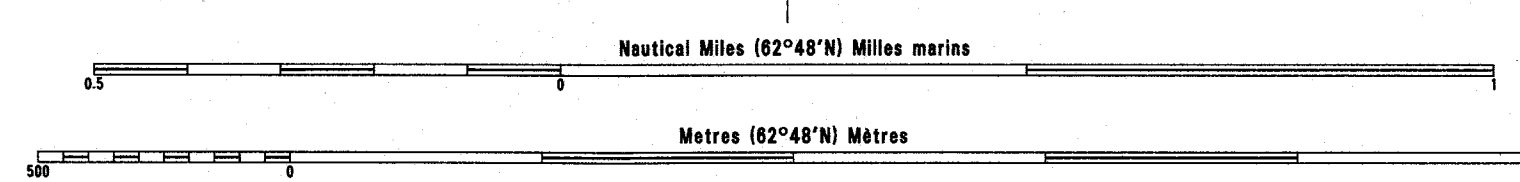
Consult the Net / Consultez sur l'Internet
www.sho-sho-mpo.gc.ca



5628

Northwest Territories/Territoires du Nord-Ouest
Hudson Bay/Baie d'HUDSON
RANKIN INLET
INCLUDING Y COMPRIS MELVIN BAY AND/ET PRAIRIE BAY

LOCATION LOCALITÉ	Elevation above Chart Datum / Altitude au-dessus du zéro des cartes			
	Large Tide/Grande marée	Low Tide/Basse mer	Mean Tide/Moyenne marée	Mean Low Water/Moyenne basse mer
Panorama Island	4.6	0.0	3.9	0.7
	mètres/mètres	mètres/mètres	mètres/mètres	mètres/mètres



CANADA
NORTHWEST TERRITORIES
TERRITOIRES DU NORD-OUEST
HUDSON BAY/BAIE D'HUDSON
RANKIN INLET
INCLUDING/Y COMPRIS
MELVIN BAY AND/ET PRAIRIE BAY

Projection : Mercator

DEPTHs are in metres and are indicated on Chart Datum (Lowest Normal Tide), which is the average of the lowest tides. Underlined figures on drying areas or in brackets indicate depths in metres above Chart Datum.

LES PROFONDEURS sont en mètres et sont indiquées au zéro des cartes du niveau moyen de la basse mer. Les chiffres soulignés sur les zones à sec ou en crochets indiquent les profondeurs en mètres au-dessus du zéro des cartes.

Underlined figures on drying areas or in brackets indicate depths in metres above Chart Datum.

Les chiffres soulignés sur les zones à sec ou en crochets indiquent les profondeurs en mètres au-dessus du zéro des cartes.

VERTICAL SCALE North American Datum 1983 (NAD 83). Positions shown on this chart may be affected by the Earth's rotation and the resulting change in the shape of the Earth. The positions shown on this chart are based on the best available information and are not guaranteed.

ÉCHELLE VERTICALE Datum du Nord-Américain de 1983 (NAD 83). Les positions indiquées sur cette carte peuvent être affectées par la rotation de la Terre et le changement de sa forme. Les positions indiquées sur cette carte sont basées sur les meilleures informations disponibles et ne sont pas garanties.

SOURCE: Surveyed by the Canadian Hydrographic Service, 1984-1985.

SOURCE: Levé par le Service hydrographique du Canada, 1984-1985.

For Symbols and Abbreviations, see Chart No. 1.

Pour les symboles et abréviations, consultez la carte n° 1.

Approximate shipping route

METRIC/MÉTRIQUE

APPENDIX C • REGULATORY REQUIREMENTS FOR THE OIL HANDLING FACILITY - CONCORDANCE TABLE

Table C-1 Regulatory Requirements for the Operation of an Oil Handling Facility

Table outlining compliance with all associated regulatory requirements for the operation of an Oil Handling Facility of a Level 2 prescribed class.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
<i>Environmental Response Arrangements Regulations (SOR/2008-275)</i>	
Vessels	Gross tonnage of vessels delivering diesel fuel to Agnico Eagle Mines Limited (AEM) at Itivia tank farm (Rankin Inlet) ranges from 2,000 to 5,700 tonnes.
Paragraph 167(1)(a) and subparagraphs 167(1)(b)(ii) and (iii) of the Act do not apply in respect of vessels that are in waters north of latitude 60°N.	Delivery of fuel to AEM tank farm located at Itivia in Rankin Inlet; location is north of 60°N.
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.	Delivery of fuel to AEM tank farm located at Itivia in Rankin Inlet; location is north of 60°N.
For the purposes of paragraphs 167(1)(a) and 168(1)(a) of the Act, the prescribed maximum quantity of oil is 10,000 tonnes.	Itivia and oil tankers will exceed the prescribed maximum quantity of 10,000 tonnes; however, section 167 (1) (a) does not apply north of 60°N.
3. (1) Oil handling facilities that received more than 100 tonnes of oil during the preceding 365 days are prescribed as a class for the purposes of subsection 168(1) of the Act.	AEM tank farm located at Itivia in Rankin Inlet is prescribed as a class.
<i>Regulations for the Prevention of Pollution from Ships and for Dangerous Chemicals (2007)</i>	(Repealed, SOR/2012-69, s. 135)
<i>Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69)</i>	
133. (1) The operator of an oil handling facility who is required to have an oil pollution emergency plan under paragraph 168(1)(d) of the Act must, as soon as feasible, (a) report any discharge or anticipated discharge of oil to the federal emergency telephone number identified in the oil pollution emergency plan; and	Oil Pollution Emergency Plan (OPEP), Table 6-3, p. 21, External Contacts: (1) NT-NU 24-Hour Spill Report Line (2) Canadian Coast Guard (in the event of a spill to the marine environment) 1 800 265-0237

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
<i>Canada Shipping Act - OHF Regulations & Guidelines</i>	AEM's Response
(b) report in writing any discharge or anticipated discharge of oil to the Department of Transport Marine Safety Office nearest to the facility.	OPEP, Section 6, Spill Response Procedures (describes the procedure of sending a spill report to the NT/NU Spill Report Line).
(2) The report must include the following information:	
(a) the identity of any vessel involved;	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).
(b) the name and address of the oil handling facility;	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).
(c) the name and position of the person who is responsible for implementing and coordinating the oil pollution emergency plan;	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2). OPEP, Table 6-1 Internal Contacts, p. 20 - to be completed as personnel for the mine remain to be hired.
(d) the date, time and location of the discharge or the estimated date, time and location of the anticipated discharge;	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).
(e) the nature of the discharge or anticipated discharge, including the type and estimated quantity of oil involved;	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).
(f) a description of the response actions to be taken;	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).
(g) on-scene conditions; and	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).
(h) any other relevant information.	Required as part of NT/NU Spill Report (available in SD 2-16 Spill Contingency Plan, Appendix A, p. A-2).

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
Response Organizations and Oil Handling Facilities Regulations (SOR/95-405; also Response Organization Standards (TP 12401))	
12(2) An oil handling facility's oil pollution emergency plan shall include the following information:	The OPEP will come into effect when AEM receives its Project Certificate from the NIRB and after construction of the tank farm is complete (see OPEP, Implementation, page ii).
(a) the policies that the operator of the oil handling facility will follow in the event of an oil pollution incident;	Oil Handling Facility Declaration, OPEP, page iii; SD 2-16 Spill Contingency Plan, Section 1.5, AEM Sustainable Development Policy, p. 3.
(b) in respect of each group of oil products that are loaded or unloaded to or from a ship at the oil handling facility and that, if spilled, would individually require a response similar to the appropriate response for every other oil product in the group, an oil pollution scenario that contains:	OPEP, Section 5.2, Nature of Oil Product, p. 13. The only oil product to be transferred from ship to shore at the OHF will be P50 Arctic Grade diesel fuel.
(i) a description of the response in respect of the spill size determined in accordance with section 2 of the <i>Oil Handling Facilities Standards</i> ; and	Level 2 – a scenario for a spill size of 5 m ³ and the response thereto is provided in section 10 of the OPEP, p. 32.
(ii) the assumptions on which each scenario is based, taking into account the factors set out in section 3 of the <i>Oil Handling Facilities Standards</i> ;	OPEP, Section 6, Spill Response Procedures, p. 14-21; Section 10, Spill Scenarios and Response Strategies, p. 26-34. Section 2, Fuel Storage Facilities and Infrastructure, p. 3-8.
(c) a description of the activities that will be carried out in the event of an oil pollution incident, taking into account the priorities set out in section 4 of the <i>Oil Handling Facilities Standards</i> , the time within which those activities will be carried out and the names of the persons responsible for carrying them out;	OPEP, Section 6, Spill Response Procedures, p. 14-21.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
(d) the types and quantity of equipment for use on scene during a response to an oil pollution incident at the oil handling facility in respect of the spill size that is determined in accordance with section 2 of the <i>Oil Handling Facilities Standards</i> ;	OPEP, Section 2.5, Measures to Minimize a Diesel Pollution Incident, p. 7-8. A sea can of spill response equipment will be maintained by AEM at Itivia and it will be used in the event of a spill. See attached table of equipment to be placed in sea can.
(e) the name of each person or body 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;	OPEP, Section 2.5, Measures to Minimize a Diesel Pollution Incident, p. 7-8. A sea can of spill response equipment will be maintained by AEM at Itivia. This equipment will be used in the event of a spill.
(f) the name or position of the persons who are authorized and responsible for ensuring that the response to an oil pollution incident at the oil handling facility is immediate, effective and sustained;	OPEP, Table 6-1, Internal Contacts, p. 20 (this list will be finalized once personnel are hired for the mine).
(g) the name of each person included in the personnel who has received basic oil pollution incident response training or any other training in relation to an oil pollution incident;	OPEP, Section 7, Training, Spill Equipment and Spill Exercise, p. 22-23. The Emergency Response Team (ERT) remains to be selected from mine personnel once the mine is staffed.
(h) a description of the training that the operator of the oil handling facility provides to its personnel in preparation for the responsibilities that they might be requested to undertake in response to an oil pollution incident;	OPEP, Section 7, Training, Spill Equipment and Spill Exercise, p. 22-23.
(i) a description of the training that the operator of the oil handling facility plans to provide to its employees and to volunteers whom it might use to respond at short notice to an oil pollution incident;	OPEP, Section 7, Training, Spill Equipment and Spill Exercise, p. 22-23. Employees of AEM will be part of the ERT, volunteers are not expected to be used.
(j) an oil pollution incident exercise programme established to evaluate the effectiveness of all aspects of the procedures, equipment and resources that are	OPEP, Section 7, Training, Spill Equipment and Spill Exercise, p. 22-23.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
identified in the oil pollution emergency plan, including exercises to be coordinated with ships, response organizations or the Canadian Coast Guard, as the case may be;	
(k) a description of the measures that the operator of the oil handling facility will take, in accordance with federal and provincial regulations relating to health and safety, to protect the health and safety of personnel, of volunteers and of other individuals who are involved, at the request of the operator, in responding to an oil pollution incident;	OPEP, Section 7, Training, Spill Equipment and Spill Exercise, p. 22-23.
(l) a description of procedures for the updating of the oil pollution emergency plan; and	OPEP, Section 11, Preventive Measures, p. 35.
(m) a description of the manner in which the operator of the oil handling facility plans to respond to an oil pollution incident that involves a quantity of oil that is greater than the spill size referred to in paragraph (d) and that is scheduled to be transshipped, to a maximum of 10,000 t.	OPEP, Section 1, Introduction, p. 1. AEM would provide whatever assistance it could to the Master's of the ships. Also contact the Canadian Coast Guard (CCG) under the Regional Response Plan.
13. (1) The procedures that an oil handling facility shall implement on site, in respect of an oil pollution incident arising out of the loading or unloading of oil to or from a ship, include the following:	
(a) the loading and unloading operation is to be shut down immediately and is not to be restarted in a manner that would interfere with the immediate, effective and sustained response to the oil pollution incident;	OPEP, Section 2.5, Measures to Minimize a Diesel Pollution Incident, p. 7-8.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
(b) the response to the oil pollution incident is to be managed in coordination with the Canadian Coast Guard and federal, provincial and other bodies responsible for, or involved in, the protection of the environment;	OPEP, Figure 6-1 Spill Response Reporting Sequence (p. 15), Table 6-3 External Contacts (p. 21).
(c) in relation to the quantity of oil involved in the oil pollution incident, up to the minimum spill size determined in accordance with section 2 of the <i>Oil Handling Facilities Standards</i> , the response to that incident in accordance with paragraphs 13(2)(b) and (c);	The Itivia OHF facility will be a Level 2 facility based on a fuel transfer rate from ship-to-shore of 400 m ³ /hr. Minimum spill size to activate incident response would thus be 5 m ³ .
(d) the operator takes the measures required during the response to the oil pollution incident in accordance with the priorities set out in section 4 of the <i>Oil Handling Facilities Standards</i> ;	See Oil Handling Facilities Standards below, particularly in relation to Section 4.
(e) at least one of the persons referred to in paragraph 12(2)(f) is to be accessible to the Canadian Coast Guard during the entire loading or unloading operation;	OPEP, OHF Declaration, p. iii. See list attached to the Declaration.
(f) the operator of the oil handling facility is prepared, after the response in relation to a quantity of oil of the spill size referred to in paragraph (c), to respond to an oil pollution incident in relation to the total quantity of oil that is scheduled to be transhipped, to a maximum of 10,000 t.	OPEP, Section 6, Spill Response Procedures, p. 14-21. The 24-Hour Spill Report Line will be called in the event of a spill.
(2) The equipment and resources that an oil handling facility shall have for use, in respect of an oil pollution incident at the oil handling facility arising out of the loading or unloading of oil to or from a ship, include the following:	

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
(a) the equipment referred to in paragraph 12(2)(d) that is required to contain and control the oil or, where the oil cannot be contained, to control the quantity of oil involved in the incident, up to the minimum spill size determined in accordance with section 2 of the <i>Oil Handling Facilities Standards</i> , is to be on site during any loading or unloading operation;	See Oil Handling Facilities Standards below.
(b) the equipment and resources required to contain and control the oil or, where the oil cannot be contained, to control the quantity of oil involved in the incident, up to the minimum spill size determined in accordance with section 2 of the <i>Oil Handling Facilities Standards</i> , are to be deployed on scene within one hour after the discovery of the oil pollution incident, unless deployment within one hour would be unsafe, ineffective or impracticable; and	See Oil Handling Facilities Standards below.
(c) the equipment and resources required to recover and clean up the oil involved in the incident up the minimum spill size determined in accordance with section 2 of the <i>Oil Handling Facilities Standards</i> are to be deployed on scene within six hours after the discovery of the oil pollution incident.	See Oil Handling Facilities Standards below.
15. An oil pollution incident exercise programme referred to in paragraph 12(2)(j) shall be carried out over a three-year period that begins on the day on which the oil handling facility is designated pursuant to subsection 660.2(8) of the Act and over each three-year period thereafter.	OPEP, Section 7, Training, Spill Equipment and Spill Exercise, p. 22-23.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
<i>Canada Shipping Act - OHF Regulations & Guidelines</i>	AEM's Response
16. The operator of an oil handling facility shall submit to the Minister four copies of the oil pollution emergency plan.	AEM commits to submit four copies of the OPEP to the Minister following its completion and before the OHF begins operations.
17. The operator of an oil handling facility shall update the oil pollution emergency plan (a) annually, to take into account changes in law, in environmental factors and in facility characteristics and policy; and (b) after every oil pollution incident and exercise.	AEM commits to update the OPEP as required.
Oil Handling Facilities Standards (TP 124020)	
For the purpose of Section 2, Oil Handling Facilities (OHF) are categorized according to their maximum oil transfer rate in cubic metres per hour, in respect of each single oil product loaded or unloaded to or from a ship, as follows: Level 2 for maximum oil transfer rate of 750 m ³ /hr.	OPEP, Section 2.1, Route of Tanker, Anchoring Location and Transfer of Fuel, p. 4-5 (ship to shore transfer of fuel at Itivia it will be at approximately 400 m ³ /hr; the category of OHF will be Level 2).
The following is the minimum size of an oil pollution incident in respect of each single oil product loaded or unloaded to or from a ship, for which a response needs to be described in the oil pollution emergency plan: Level 2 - minimum spill size of 5 m ³ .	OPEP, Section 2.1, Route of Tanker, Anchoring Location and Transfer of Fuel, p. 4-5. The category of OHF will be Level 2.
An oil handling facility, in developing oil pollution scenarios, shall take into account the following factors:	
(a) the nature of the oil product in respect of which the scenario is developed;	OPEP, Section 5.2, Nature of the Oil Product, p. 13.
(b) the types of ships that are loaded or unloaded at the facility;	OPEP, Section 2.1, Route of Tanker, Anchoring Location and Transfer of Fuel, p. 4-5.
(c) the tides and currents that prevail at the facility;	OPEP, Section 2.2, Tides and Currents that Prevail at the Facility, p. 5.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
(d) the meteorological conditions that prevail at the facility;	OPEP, Section 2.3, Meteorological Conditions Prevailing at the Facility, p. 5-6.
(e) the surrounding areas of environmental sensitivities that would likely be affected by an oil spill;	OPEP, Section 2.3, Meteorological Conditions Prevailing at the Facility, p. 5-6.
(f) the measures that will be implemented to minimize an oil pollution incident; and	OPEP, Section 2.5, Measures to Minimize a Diesel Pollution Incident, p. 7-8.
(g) the time within which an effective response to an oil pollution incident can be carried out.	OPEP, Section 6, Spill Response Procedures, p. 16.
The following priorities shall be taken into account for the purpose of establishing the order of measures to be taken during a response to an oil pollution incident:	
(a) the safety of the facility's personnel;	OPEP, Section 6, Spill Response Procedures, p. 16; SD 2-15 Risk Management and Emergency Response Plan, Section 4.1.5, Health and Safety Superintendent, p. 14-15; SD 8-1 Shipping Management Plan, Section 10, Safety, p. 24.
(b) the safety of the facility;	SD 8-1 Shipping Management Plan, Section 10, Safety, p. 24; Section 1.1, Shipping Needs, p. 1.
(c) the safety of the communities living adjacent to the facility;	Built-up areas of Rankin Inlet are more than 0.5 km removed from Itivia.
(d) the prevention of fire and explosion;	SD 2-15 Risk Management and Emergency Response Plan, Section 4.6.1, Fire, p. 26-27; SD 2-16 Spill Contingency Plan, Section 8.1.1, On-Site Personnel, p. 25.
(e) the minimization of the oil pollution incident;	OPEP, Section 2.5, Measures to Minimize a Diesel Pollution Incident, p. 7-8.
(f) the notification and reporting of the oil pollution incident;	OPEP, Section 8, Reporting, p. 24.
(g) the environmental impact of the oil pollution incident; and	OPEP, Section 6, Spill Response Procedures, p. 16.

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
<i>Canada Shipping Act - OHF Regulations & Guidelines</i>	AEM's Response
(h) the requirements for cleaning up the oil pollution incident.	OPEP, Section 9, Treatment and Disposal, p. 25.
Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants (TP 9834E)	
3.1 The report should be transmitted in the following manner:	Reporting required of the Master of vessels is not included, only that required of the OHF.
...when an oil pollution incident occurs involving a vessel at a designated oil handling facility, the operator of the oil handling facility shall:	
1. report with the highest possible priority and using the quickest means available, to the federal emergency telephone number identified in the facility's oil pollution emergency plan;	OPEP, Section 8, Reporting, p. 24.
2. report in writing any incident involving oil to the Transport Canada Marine Safety office nearest to the facility.	OPEP, Section 8, Reporting, p. 24.
Release and Environmental Emergency Notification Regulations (SOR/2011-90)	
(2) Any person required by paragraph 95(1)(a), 169(1)(a), 179(1)(a), 201(1)(a) or 212(1)(a) of the <i>Canadian Environmental Protection Act, 1999</i> to provide notification of the occurrence of a release of a substance, the likelihood of such a release, or the occurrence of an environmental emergency shall, as soon as possible in the circumstances, notify:	
(a) in all cases other than those mentioned in paragraph (b), an enforcement officer or a person referred to in paragraph (1)(a) at the applicable telephone number set out in column 3 of the schedule; or	OPEP, Table 6-3, p. 21. This table contains the 24-Hour Spill Report Line number for Nunavut (1-867 920-8130).

Concordance Table C-1- Regulatory Requirements for the Operation of an Oil Handling Facility (OHF)	
Canada Shipping Act - OHF Regulations & Guidelines	AEM's Response
(b) in the case of the master of a vessel, the owner of a vessel or the operator of an oil handling facility to whom the <i>Pollutant Discharge Reporting Regulations, 1995</i> apply, an enforcement officer or the person referred to in paragraph (1)(b).	OPEP, Section 8, Reporting, p. 24.
Arctic Waters Pollution Prevention Regulations (C.R.C., c. 354)	
7. Where any person (a) has deposited waste in violation of subsection 4(1) of the Act, he shall forthwith report the deposit of waste or the accident or other occurrence to a pollution prevention officer at Whitehorse in the Yukon Territory or at Yellowknife in the Northwest Territories by telecommunication or, where telecommunication is not available, by the fastest means available.	OPEP, Table 6-3, p. 21. This table contains the 24-Hour Spill Report Line number for Nunavut (1-867920-8130).