# APPENDIX 29-11. OIL POLLUTION EMERGENCY PLAN / OIL POLLUTION PREVENTION PLAN (OPEP/OPPP)



#### **MELIADINE GOLD MINE**

OIL POLLUTION EMERGENCY PLAN AND OIL POLLUTION AND PREVENTION PLAN

In Accordance with NIRB Project Certificate No. 006

Prepared by:
Agnico Eagle Mines Limited – Meliadine Division

#### ITIVIA OIL HANDLING FACILITY

EC-00044507 P-50 Diesel fuel

MARCH 2025 Version 11

# 

extstyle ex



March 2025 i

#### **EXECUTIVE SUMMARY**

This document presents the Oil Pollution Emergency Plan (OPEP) and Oil Pollution Prevention Plan (OPPP) for Agnico Eagle Mines Limited (Agnico Eagle) Meliadine Gold Mine. This plan is pursuant to the Canada Shipping Act 2001; and all the subtending regulations. This emergency plan is also required under the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (STS Regs), s. 30 to 32. pursuant to the Canadian Environmental Protection Act, 1999 and the Environmental Emergency Regulations 2019 SOR/2019-51.

The OPEP designates lines of authority, responsibility, establishes proper reporting and details plans of action in the event of a spill. The OPPP is designated to ensure the necessary planning to prevent a spill was undertaken. Both plans are complementary and combined into one plan.

This combined plan applies to the operational phase of the fuel transfer which takes place at Agnico Eagle Mines Limited's Itivia Site Fuel Storage and Containment Facilities and Oil Handling Facility located at latitude 62°48′16.66″ N and longitude 92°05′5.32″ W.

A hard copy of the OPEP and OPPP is available at the Rankin Inlet Marshalling facility during the transfer operations.



#### **ACRONYMS**

Agnico Eagle Agnico Eagle Mines Limited
AWOT Arctic Waters Oil Transfer
CCG Canadian Coast Guard

CIRNAC Crown-Indigenous Relations and Northern Affairs Canada

DFO Department of Fisheries and Oceans Canada

ECC Emergency Control Center

ECCC Environment and Climate Change Canada

EMC Emergency Measure Counsellor
ERT Emergency Response Team
ERP Emergency Response Plan
Fuel P50 Arctic Grade diesel fuel

IMO International Maritime Organization

KivIA 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

NIRB Nunavut Impact Review Board

NWB Nunavut Water Board
OHF Oil Handling Facility

OPEP Oil Pollution Emergency Plan

OPPP Oil Pollution Prevention Plan Personal

PPE Protective Equipment
SCP Spill Contingency Plan
SDS Safety Data Sheet

SOPEP Ship Oil Pollution Emergency Plan

SMP Spill Management Plan TC Transport Canada

TCMSS Transport Canada Marine Safety & Security

TEU Twenty-foot equivalent unit

WHIMIS Workplace Hazardous Material Information System



#### **DISTRIBUTION LIST**

Agnico Eagle – Environmental Superintendent

Agnico Eagle – Environment General Supervisor

Agnico Eagle – Environment Department

Agnico Eagle - General Mine Manager

Agnico Eagle – Health and Safety Superintendent

Agnico Eagle – Energy and Infrastructures Superintendent

Agnico Eagle – Maintenance Superintendent

Agnico Eagle – ERT Emergency Measures Councilor

Rankin Inlet – Rankin Inlet Hamlet Office Rankin Inlet – Fire Department

Woodward - General Manager Transport Canada - Marine Pollution Officer

Woodward – Marine Superintendent

Canadian Coast Guard Environmental Response



# **DOCUMENT CONTROL**

Version	Date (YMD)	Section	Page	Revision
0	17/07/17	All	All	Comprehensive plan for Agnico's Rankin Inlet Fuel Farm Facilities
1.1	18/09/17	5.3, 10.2, Appendix H	11, 33, 217	Additions and revisions in response to the comments by Transport Canada officer
1.2	18/02/07	All	All	Version and date updated, general review and revision
		Document control	5	Environment general supervisor updated
		3.2.1	4	Added reference to spill response shipping containers located along the AWAR
		4.2.1	8	Removed "A fuel dispensing pad area completed 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 at the tank farm." – to be implemented through future planning
		5.4	12	Added "or equivalent, ie. Plastic tote" to options for spill containment at OHF manifold
		Figure 3	13	Added environment department to list of security contacts
		Table 5	24	Updated Agnico Eagle contact list
1.3	18/07/20	All	All	Fuel Handler
2	19/01/03	All	All	Version and date updated, general review and revision
		Appendix I		Added mock spill training in the summer of 2018
3	19/10/10	Executive summary	i	Add references to the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations and the Environmental Emergency Regulations in the executive summary
		Section 2.5	7	Health and environmental risk resulting from an emergency release of diesel spill

March 2025



		Section 5.1	11	Main activities involving diesel fuel
		Section 11.1	35	Maximum expected quantity of diesel fuel at the Itivia facility
		Appendix J		PTA assessment
		Appendix K		STR's cross reference table
		Appendix L		EER 2019 cross reference table
3.1	10/4/2020	Section 8.3		Contact information updated
		Appendix A		Updated with latest version
		Appendix B		Updated with latest version
		Appendix C		Updated with latest version
		Appendix G		Updated with latest version
		Appendix I		Updated with latest version
		Appendix L		Removed
4	9/7/2020	Section 1	1	OHF declaration updated
		Section 2.1	2	Requirements for plan update added
		Section 2.2	2	Legislative requirements updated
		Section 3.1	5	Maximum spill volume updated
		Section 3.2	45783	Information on fuel recovery added
		Section 6	13	Maximum spill volume updated
		Section 8	22	Code One procedure added
		Scenario 3	39	Maximum spill volume updated
5	30/06/2021	All		Fuel shipping company information updated
		Section 1	1	OHF declaration updated
		Appendix A		SOPEP updated
6	11/4/2022	Section 8.3, Tables 4 and	24 and 26	Minor update of the Contacts Tables 4 and 6
7	20/07/2022	Section 1, Section 8.3 Table 4	1 and 24	Updated Oil Handling Facility Declaration and minor update of the Contacts in Table 4
8	3/31/2023	Section 2	2	Updated to reflect to include Level 2 facility information
		Section 7.2.2.	18-20	Minor updates to spill response kit content
		Section 8	25-27	Minor updates to contact information
		Section 10	36-37	Updated to align with CSA 182(1)(a) spill reporting requirement
9	7/4/2023	Section 1	1	Updated Schedule 2 OHF Declaration

March 2025 vi



		Section 7.3	21	Table 2 update
		Section 8.3	24-26	Minor updates to contact information
		Section 9.1	27	Minor updates to responsibilities of the first responder
		Section 11	35	Added reference to Section 11(3) of the Environmental Response Regulations
10	6/27/2024	Section 1	1	Updated Schedule 2 OHF Declaration
		Sections 4.1, 4.2	7-9	Sections updated to reflect the addition of 2 fuel tanks within the existing OHF in 2024. Updated Figures 1 and 2.
		Section 8.3	24-26	Minor updates to contact information
		Sections 5.3, 9.1	11, 27	Third-party contractor change from Intertek to AmSpec
11	3/31/2025	Section 4.1,4.2	7-9	Sections updated to reflect the construction of 2 fuel tanks within the existing OHF in 2024.
		Section 7.1, 7.2.2.2	16-18	Updated Emergency equipment inventory
		Section 8.2,8.3	23-24	Updated Tables 3 to 6
		Appendix H		Added Appendix H: Environmental Emergency Regulations Cross Reference Table

Prepared By: Agnico Eagle Mines Limited - Meliadine Division

Approved By:

Sara Savoie

**Environment Superintendant** 



March 2025 vii

# **TABLE OF CONTENTS**

ط⊳در	<b>J</b> ኑح ္	·└°`⊃° 교Δ॓॓॓°'ॽ॑ぺऀ	i
Executi	ve Sur	nmary	ii
ACRON	YMS		. iii
DISTRIE	UTIO	N LIST	. iv
DOCUM	1ENT C	CONTROL	<b>v</b>
Table o	f Cont	entsv	∕iii
List of F	igures	s	. xi
List of T	ables		. xi
Section	1 •	Oil Handling Facility Declaration	1
Section	2 •	General Introduction	2
2.1.	Fun	damental Principles	3
2.2.	Legi	slative Requirements	4
2.3.	Rela	ated Documents	4
2.4.	Mel	iadine Mine OPEP and OPPP	5
2.5.	Hea	Ith and Environmental Risk Resulting from an Emergency Release of Diesel Fuel	5
Section	<b>3</b> •	Planning Standards	7
3.1.	Faci	lity Category	7
3.2.	Gen	eral Planning Guidelines	7
3.2	2.1.	Response Time Standards	7
3.2	2.2.	On-Water Recovery	7
3.2	2.3.	Dedicated Facility Spill Response Equipment	8
3.2	2.4.	Transfer Conduit	8
3.2	2.5.	MEL-ENV-PRO Ship to Shore Fuel Discharge	8
Section	4 •	MARSHALLING AREA AND FUEL STORAGE FACILITY	9
4.1.	Gen	eral Overview and Site Description	9
4.2.	Fue	Storage Facilities Infrastructure	10
4.2	2.1.	P-50 Fuel Tanks	10
4.3.	Ran	kin Inlet Shoreline and Marine Characteristics	11
4.3	3.1.	Topography	11
4.3	3.2.	Flora and Fauna	
4.3	3.3.	Tides and Currents that Prevail at the Facility	12



4.3	3.4.	Meteorological Conditions Prevailing at the Facility	12
4.3	3.5.	Surrounding Area Environmental Sensitivities	12
Section	5 •	SITE ACTIVITIES	ļ
5.1.	Nat	ure of the Oil Product	14
5.2.	Bul	k Transfer	14
5.3.	Me	asures to Minimize a Diesel Pollution Incident	14
5.4.	Per	manent Containment Structure	15
Section	6 •	MELIADINE RESPONSE TO EMERGENCIES	,
6.1.	Res	ponse Management Structure	17
6.2.	Log	istics and Planning	17
Section	7 •	EQUIPMENT AND PPE	)
7.1.	ОН	F Response Equipment for spills up to <5 m³	20
7.2.	Ado	ditional Response Equipment for Spills >5 m <sup>3</sup>	21
7.2	2.1.	General Equipment	21
7.2	2.1.1.	Mobile Equipment	21
7.2	2.1.2.	Emergency Transportation	21
7.2	2.2.	Spill Response Kits and Containers	21
7.2	2.2.1.	Kits	21
7.2	2.2.2.	Emergency Trailer	22
Table	2: C	ontents of Environmental Emergency Trailer	22
7.2	2.2.3.	AWAR Shipping containers	23
7.3.	PPE	<u> </u>	25
7.3	3.1.	Spills <5 m <sup>3</sup>	25
7.3	3.2.	Spills >5 m <sup>3</sup>	25
Section	8 •	COMMUNICATION	i
8.1.	Cor	nmunication with the Public	27
8.2.	Hai	nd Held Radio Communication	27
8.3.	Cor	ntacts	28
Section	9 •	ROLES AND RESPONSIBILITIES	
9.1.	Firs	t Responder (Third Party Contractor (AmSpec Personnel) and Warehouse Itivia Clerk)	31
9.1	1.	Supervisor Fuel Discharge (Logistics Supervisor)	31
9.2.	Rol	es & Responsibilities of the Emergency Control Group	31
9.2	1	Official In-Charge	. 31



9.2.2.	General Superintendents	32
9.2.3.	Incident Commander: A Trained Staff Member (ERT Coordinators or Supt.)	32
9.2.4.	Emergency Response Team (ERT Team) Duties	33
9.2.5.	Environmental Superintendent / Designate Duties	33
9.2.6.	Health and Safety Superintendent/Designate Duties	33
9.2.7.	Energy & Infrastructure Superintendent/Designate Duties	34
9.2.8.	Human Resources Coordinator/Designate Duties	34
9.2.9.	Health Care Professional (Nurse/Medic)	34
9.2.10.	Security (Security Officers)	34
9.3. De	briefing	34
Section 10 •	GENERAL SPILL PROCEDURES	36
10.1.	Coordination with Government Agencies	3 <i>є</i>
10.1.1.	Coordination with TC Technical Service Environmental Response	37
10.1.2.	Coordination with Canadian Coast Guard	37
10.1.3.	Other Government Agencies	37
10.2.	Reporting Requirements	37
10.3.	Treatment and Disposal	38
10.4.	Resuming Unloading	38
Section 11 •	SPILL SCENARIOS AND RESPONSE STRATEGIES	39
11.1.	Product Properties and Response Strategy	39
11.2.	Pipeline Safeguards	39
11.3.	Wildlife	41
11.4.	Scenarios	41
Section 12 •	PREVENTIVE MEASURES	45
12.1.	Training	45
12.1.1.	Meliadine site Personnel	46
12.1.2.	OHF Personnel Training	46
12.1.3.	Boat Operators	47
Section 13 •	WOODWARD	48
C+: 11 -	Defendance	40



## **APPENDICIES**

APPENDIX A – SOPEP - Woodward
APPENDIX B – MSDS for P-50 Diesel
APPENDIX C –MEL-ENV-PRO Ship to Shore Fuel Discharge Procedure
APPENDIX D – Ship to shore checklist - Woodward
APPENDIX E – The Central and Arctic Regional Response Plan (2008)
APPENDIX F – NT-NU Spill Report
APPENDIX G– Meliadine OHF Concordance Table
APPENDIX H – Environmental Emergency Regulations Cross Reference Table

#### **LIST OF FIGURES**

Figure 1: Location of the Itivia OHF and Rankin Inlet	9
Figure 2 - Itivia Site Fuel Storage and Containment Facility	10
Figure 3: Depicts the Response Management System.	19
LIST OF TABLES	
Table 1: Material available in the Spill Response Shipping container at Agnico Eagle's OHF	20
Table 2: Contents of Environmental Emergency Trailer	22
Table 3: Contents of AWAR Spill Shipping container at KM 7	23
Table 4: Contents of AWAR Spill Shipping container at KM 18	24
Table 5: PPE Available at OHF	25
Table 6: Meliadine Radio Channels	27
Table 7: Agnico Eagle Contacts	28
Table 8: Contractors and Local Contacts	29
Table 9: External Contacts	30



# **SECTION 1 • OIL HANDLING FACILITY DECLARATION**

Pursuant to paragraph 168(1) (b) (i) of the Canada Shipping Act 2001, Agnico Eagle Mines Ltd. (Agnico Eagle) has signed an Oil Handling Facility Declaration. This Declaration can be found posted at the Oil Handling Facility (OHF).





PROTECTED A (WHEN COMPLETED)

T Canada Canada
SCHEDULE 2 OIL HANDLING FACILITY DECLARATION NORTH OF 60 DEGREES NORTH LATITUDE
Pursuant to subsection 168(1) of the Canada Shipping Act, 2001 (CSA 2001). Bruno Laverdure
declare to comply: Name of the operator of the oil handling facility
<ol> <li>with the Environmental Response Regulations, on the detection of an oil poliution incident that arises out of the loading or unloading of oil to or from a vessel;</li> </ol>
iii) with the Vessel Pollution and Dangerous Chemicals Regulations, respecting the circumstances in which operators of oil handling facilities shall report discharges or anticipated discharges of oil, the manner of making the reports and the persons to whom the reports shall be made.
All the information contained in the submission is true and complete to the best of my ability and accurately reflect our interpretation of the regulations.
The persons listed below are authorized to implement the oil pollution emergency plan (if required, attach additional pages)
Name: Bruno Laverdure, Energy and Infrastructure Superintendent
Address: Agnico Bagle Mines Limited, Nunavut, Canada, XOC 0G0
Telephone number: 819-759-3555 Fax number: E-mail address: bxuno.lavexdure@agnicoeagle.com
Name: Jean-Claude Blais, General Manager
Address: Agnico Bagle Mines Limited, Nunavut, Canada, XOC 0G0
Telephone number: 819-759-3555 Fax number: E-mail address: jeanclaude.blais@agnicoeagle.com
Name: Dany Rodrigue, General Superintendent
Address: Agnico Bagle Mines Limited, Nunavut, Canada, XOC 0G0
Telephone number: 819-759-3555 Fax number: E-mail address: dany.rodrigue@agnicoeagle.com
Name: Sara Savoie, Environment Superintendent
Address: Agnico Bagle Mines Limited, Nunavut, Canada, XOC 0G0
Telephone number: 819-759-3555 Fax number: E-mall address: sara.savoie@agnicoeagle.com
Bruno Laverdure 05/29/2024
Signed by the operator of the oil handling facility or its representative Date (dd-mm-yyyy)

81-0031E (2004-03)

# Canadä

# **SECTION 2 • GENERAL INTRODUCTION**



The Oil Pollution Emergency Plan (OPEP) outlines the necessary actions to stop or minimize the potential loss of fuel at Agnico Eagle Mines Limited's Itivia Site Fuel Storage and Containment Facility located in Rankin Inlet, Nunavut during the ship-to-shore fuel transfer. The Oil Pollution Prevention Plan (OPPP) is designated to ensure the necessary planning to prevent a spill was undertaken. Both plans are complementary and combined into one plan.

Additionally, it provides direction to Agnico Eagle personnel and/or contractors at the laydown and tank farm areas, and to Agnico Eagle's Emergency Response Team (ERT) for emergency spill response situations, describes oil pollution scenarios, defines the roles and responsibilities of management and responders; and outlines the measures taken to prevent spills. The purpose of the OPEP and OPPP is to minimize potential health and safety hazards, environmental damage and cleanup costs.

Agnico Eagle's Itivia OHF is a Level 2 facility. The product transfer rate is of approximately 275-300 m³/hour, not expected to exceed 400 m³/hour. Transfer rates will not exceed the 750 m³/hour maximum that is authorized for a Level 2 facility.

#### 2.1. Fundamental Principles

The following OPEP is submitted to comply with the Canada Shipping Act 2001 and all the subtending regulations and to outline the appropriate spill response protocol during fuel transfer operations at the Rankin Inlet OHF. A hard copy of the OPEP/OPPP is located on site for reference and review during transfer operations. This OPEP/OPPP is reviewed annually, and updates are provided to Transport Canada Marine Safety & Security (TCMSS) for compliance prior to every shipping season.

This plan can also be reviewed and updated within 90 days if:

- 1. Any change in the law or in environmental factors that could affect the loading or unloading of oil to or from a vessel;
- 2. Any change in personnel involved in the loading or unloading of oil to or from a vessel;
- 3. Identification of a gap in either of the plans after an oil pollution incident or exercise;
- 4. Any change in the business practices, policies or operational procedures of the facility that could affect the loading or unloading of oil to or from a vessel.

The following priorities shall be taken into account when responding to an oil pollution incident and in the following order:

- 1. Safety of the workers;
- 2. Safety of the OHF;
- 3. Safety of the community of Rankin Inlet;
- 4. Prevention of fire and explosion;
- 5. Minimize the oil spill;



- 6. Notify and report the oil pollution incident to associated Governing bodies;
- 7. Minimize the environmental impact of the spill;
- 8. Complete clean-up from the oil pollution incident.

#### 2.2. Legislative Requirements

This plan was prepared in accordance with federal legislation listed below, which lists legislative instruments applicable to Agnico Eagle's Itivia Site Fuel Storage and Containment Facility. All requirements found in the Canada *Shipping Act, 2001*, (ss. 168 and 182) and the Environmental Response Regulations, SOR/2019-252 (ss.10, 11, 12 and 13) are laid out in the Meliadine Mine site OHF Concordance Table which is available in Appendix G.

The OPEP/OPPP complies with the requirements for procedures, equipment and resources as set out in the *Canada Shipping Act* (ss. 660.2(4)) specific to a fuel handling facility - the bulk incoming transfer of fuel from ship-to-shore and spill scenarios directly relating to this operation.

The following standards and regulatory requirements have been reviewed in preparation of this document:

- Canada Shipping Act, 2001;
- Environmental Emergency Regulations 2019;
- Environmental Response Regulations (SOR/2019-252);
- Environmental Response Standards (TP 14909);
- Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69);
- Arctic Waters Oil Transfer Guidelines (TP 10783);
- Storage tank System Regulations;
- OHFs Standards (TP 12402E)
- Environmental Prevention and Response National Preparedness Plan (TP 13585); and
- Requirements of the Central & Arctic Regional Response Plan.

#### 2.3. Related Documents

Management and monitoring plans for the Meliadine Project and that provided input to the OPEP/OPPP include the following:

1. Spill Contingency Plan (SCP);



- 2. Emergency Response Plan (ERP);
- 3. Shipboard Oil Pollution Emergency Plan<sup>1</sup>; and
- 4. Shipping Management Plan.

The cornerstones of contingency planning for Agnico Eagle are the SCP and the OPEP/OPPP. These plans, coupled with the ERP and the Shipping Management Plan, 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 fuel is lost during the transfer of fuel from a tanker vessel to the Fuel Tank Facility.

The OPEP/OPPP complements the SCP and it should not be construed as superseding it. The SCP addresses a wider scope of operations stretching 35 kilometers from the Meliadine mine site in the north to the infrastructure at the Itivia Site Fuel Storage and Containment Facilities. The OPEP strictly covers the transfers of fuel from ship to OHF.

#### 2.4. Meliadine Mine OPEP and OPPP

This Plan is a working document that will be reviewed annually, and updates will be provided to TCMSS for compliance prior to every shipping season.

This plan specifically centers on the activities in ship-to-shore transfer of fuel from a small tanker delivering fuel to Agnico Eagle's Itivia Site Fuel Storage and Containment Facility constructed in Rankin Inlet. On site personnel at the Facility are expected to respond to spill incidents (generally smaller than 1 m³) that can be contained and cleaned up without assistance, while the Emergency Response Team will respond to larger spills.

Fuel is being delivered to Agnico Eagle's Itivia Site Fuel Storage and Containment Facility by the Woodward Group of Companies, hereinafter referred to as Woodward. Fuel is stored within the existing tank farm owned and operated by Agnico Eagle. The Shipboard Oil Pollution Emergency Plan (SOPEP) is the responsibility of the shipping company. The outline of the SOPEP prepared by Woodward can be found in Appendix A.

#### 2.5. Health and Environmental Risk Resulting from an Emergency Release of Diesel Fuel

Short-term exposure to diesel fuel can cause irritation of the eye, skin or respiratory tract. Dizziness, headache or nausea also be experienced. Long-term exposure to diesel fuel fumes can cause lung cancer, kidney damage and increased risk of heart attack.

<sup>1</sup> The Shipboard Oil Pollution Emergency Plan (SOPEP) contains all 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. Woodward, the shipping company, is responsible for this Plan.



viii

Another risk related to an emergency release of diesel fuel would be the contamination of drinking water. Diesel fuel is highly flammable and pose a serious fire hazard if not contained.

Diesel fuel is considered a non-persistent oil (as compared to a heavier Bunker or crude oil product) in even the calmest sea conditions, as it will lose 40% of its volume due to evaporation within 48 hours in cold weather. Adverse weather will disperse the sheen into smaller slicks creating a greater surface area for evaporation. In open rough seas, most of the volume released will be dispersed and evaporated within 5 days. Nevertheless, it still poses a threat to marine organisms and particularly birds if they happen to come in contact with the slick.

More details on the diesel fuel can be found in the Safety Data Sheet (SDS) in Appendix B.

The possibility that an environmental emergency occurs, the potential effects of the environmental emergency on the environment and on human life or health and the measures that will be taken to protect the environment and human life or health will be communicated to the members of the community every year prior to the fuel transfer.



#### **SECTION 3 • PLANNING STANDARDS**

#### 3.1. Facility Category

According to the regulation, oil handling facilities located north of latitude 60°N need to describe procedures to be followed to respond to a discharge of the total quantity of oil product that could be loaded or unloaded to or from a vessel, up to a maximum of 10,000 tonnes. The carrying capacity of the delivery ship that will be used for the ship to shore transfer at the OHF will be 10,000 m³ each. This plan describes the procedures in place to respond to a spill up to 10,000 m³. To do this, the OHF will have the equipment and resources to respond to a be 10,000 m³ spill within the required timelines specified in the Environmental Response Regulations.

- 1. Containing and controlling the oil within one hour after the discovery of the discharge; and
- 2. Recovering the oil and cleaning-up, within six hours after the discovery of the discharge.

#### 3.2. General Planning Guidelines

#### 3.2.1. Response Time Standards

Agnico Eagle and contractor personnel at Itivia Site Fuel Storage and Containment Facility have appropriate training to respond to spills, if it is safe to do so (see Table 7). The material onsite can be deployed within one hour to contain a spill, unless deployment within one hour will be unsafe.

Generally, for a spill greater than 1 m<sup>3</sup>, the OPEP and the ERP will be activated and ERT located at Meliadine Mine site will come into Rankin Inlet to help. Realistically, the ERT can be on site within 60 minutes (or less) ready to help for the clean-up activity.

If the spill is greater than 5 m<sup>3</sup>, material from the spill response shipping containers along the AWAR (km 7 and 18) and the Meliadine Mine site will be required and will be brought to the Itivia OHF within 60 minutes to finalize the containment (if not complete) and recovery of the oil pollution incident.

#### 3.2.2. On-Water Recovery

Agnico Eagle has a boat in a shipping container at the Itivia Site Fuel Storage and Containment Facility that is ready to be deployed in case of an emergency. All personnel involved in a response situation need to have the pleasure craft operator's certification.

If additional watercrafts are required to help with the containment of a spill from the OHF local resources such as Sarliaq Holdings Ltd and Inuksuk Contracting. Contact info for these companies can be found in Table 5.

Containment of a fuel slick in water will require the deployment of mobile floating booms to intercept, control, contain and concentrate (i.e., increase thickness) the floating fuel. One end of the boom will be anchored to shore while the other will be towed by a boat and used to circle the oil slick and return it close to shore for recovery using a skimmer. Reducing the surface area of the slick will increase its



thickness and thereby improve recovery. Mechanical recovery equipment (i.e., skimmers and oil/water separators) will be mobilized to site if required.

Measures will be taken to protect sensitive and accessible shoreline. The fuel slick will be monitored to determine the direction of migration.

#### 3.2.3. Dedicated Facility Spill Response Equipment

Agnico Eagle has a shipping container with spill response equipment at the Rankin Inlet shore within Agnico Eagle's Marshalling area and includes booms that can rapidly be deployed to limit the spread of any spill on water. The list of equipment can be found in Table 1. The spill supplies and resources are in place to respond to a spill within the required timelines as specified in the Environmental Response Regulations.

These shipping containers are inspected before each transfer season to ensure that all the spill response material and personal protective equipment (PPE) are there and stored in a manner that is organized and accessible in order to comply with regulatory requirements and allow an efficient spill response.

#### 3.2.4. Transfer Conduit

The transfer conduit or hose that is used to transfer fuel from Woodward to the Agnico Eagle Rankin Inlet Fuel Farm OHF are pressure tested annually according to the regulation prior to it being placed into service. The transfer conduit will always have a bursting pressure of at least 4 times its maximum design (working) pressure (of 150 psi) and the design pressure will be clearly marked on the conduit. Shipping company will need to provide confirmation before transfer that conduits that is used in a transfer operation will be used, maintained, tested and replaced in accordance with the manufacturer's specifications.

#### 3.2.5. MEL-ENV-PRO Ship to Shore Fuel Discharge

Agnico Eagle has created an internal procedure to ensure all planning and precautions are in place prior to the transfer of any fuel from the vessels to the OHF. This procedure can be found in Appendix C.



#### SECTION 4 • MARSHALLING AREA AND FUEL STORAGE FACILITY

#### 4.1. General Overview and Site Description

Agnico Eagle's tank farm and laydown area is 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. The existing tank farm encloses two tanks with a capacity of 20 ML (tank #1) and 13.5 ML (tank #2), which have been in service since 2017 and 2018, respectively. In 2024, two additional tanks of 9 ML (tank #3) and 4.5 ML (tank #4) were erected adjacent to the existing tanks and within the existing secondary containment area. New pipelines were installed to connect the new tanks to the existing piping, so that the new tanks have the same functionality as the two existing ones. Commissioning of the new fuel storage tanks was completed before the end of the barge season 2024. The location of tanks 1 to 4 is shown on Figure 2.



Figure 1: Location of the Itivia OHF and Rankin Inlet



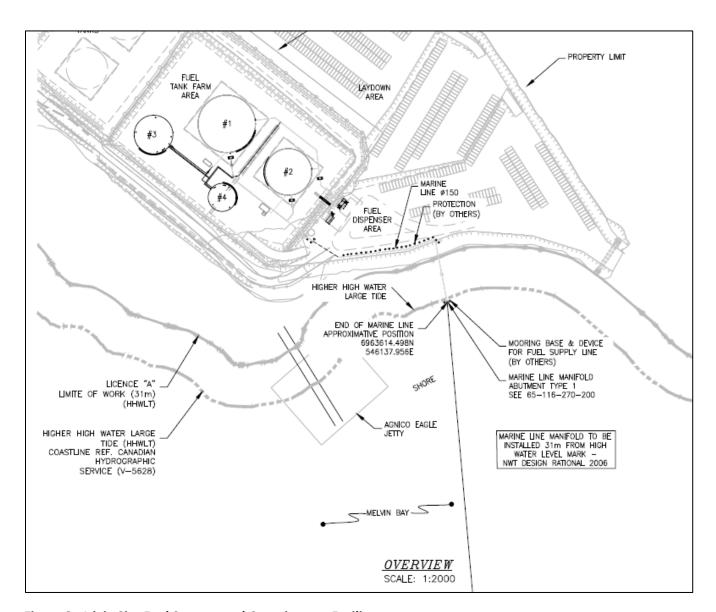


Figure 2 - Itivia Site Fuel Storage and Containment Facility

#### 4.2. Fuel Storage Facilities Infrastructure

#### 4.2.1. P-50 Fuel Tanks

The diesel fuel tanks are contained within an impermeable lined and bermed area. The steel fuel tanks were field-erected and built to API-650 standards. The new tanks #3 and 4 were installed following approved practices.

The impermeable lined and bermed cell has the following:



 A granular base for the tank completed with an impermeable LLDPE liner system and granular dikes;

- A tank complete with the required appurtenances such as stairs, base manholes, water draw offs, re-supply nozzle, suction nozzle, tank lighting, tank level monitoring, roof manhole, manual gauge hatch, tank temperature and P/V vent;
- Piping for unloading and loading; and
- Site lighting via fixtures mounted from the dispensing building.

In 2024, the liner system and berms of the secondary containment area was raised to increase the secondary containment capacity to 27,856 m<sup>3</sup> prior to commissioning of the new tanks. The secondary containment capacity complies with applicable requirements, i.e. have a volumetric capacity which is not less than the sum of:

- a) The capacity of the largest storage tank located in the contained space, and;
- b) 10% of the greater of:
  - i. The capacity specified in Clause (a), or;
  - ii. The aggregate capacity of all other storage tanks located in the contained space.

The Tank Farm Facility is 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 (Updated in 2013) (PN1326)".

The OHF is constructed and operated in accordance with TC Arctic Waters Oil Transfer Guidelines (TP 10783E) and OHF Guidelines (TP 12402E).

#### 4.3. Rankin Inlet Shoreline and Marine Characteristics

The following Rankin Inlet Shoreline and Marine Characteristics were gathered during the Environmental Impact Assessment that was performed prior to construction of the Rankin Inlet Marshalling facility and Tank Farm.

#### 4.3.1. Topography

The bulk fuel storage area is located south of the residential area of Rankin Inlet, and within the industrial area of the community of Rankin Inlet, south of the Rankin Inlet Regional Airport. The OHF sits on a terrace



parallel with the shoreline of the coast of Hudson's Bay, the bay in which Rankin Inlet is located is known as Melvin Bay. There is a gradual slope (5 to 10% grade) toward Melvin Bay with an approximate elevation change of 3-5 m from the OHF to the coastal shoreline. The Melvin Bay shoreline is gently sloping, well-drained, very rocky, comprised of boulders and rock.

#### 4.3.2. Flora and Fauna

There are no trees and few shrubs in the area surrounding the bulk fuel storage facility. The site is covered by low-lying vegetation; predominated by grassy hummocks, dwarf willow, sedge, green moss and lichen.

Arctic ground squirrels, ptarmigans and songbirds inhabit the area surrounding the bulk fuel storage facility. Lake cisco, lake trout, arctic char, lake whitefish, round whitefish, slimy sculpin and stickleback are predominant species found in Hudson Bay in the vicinity of Rankin Inlet.

#### 4.3.3. 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. Based on the navigation charts prepared by Canadian Hydrographic Service, 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.

#### 4.3.4. 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.

#### 4.3.5. Surrounding Area 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. Itivia has an intertidal zone of up to 56 metres with the substrate predominately comprised of 70% gravel/cobble, 20% fines and 10%

boulders. 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 vessels. In the winter, it is used by residents for snowmobile access to the sea ice in Melvin Bay and beyond.

Melvin Bay has a typical biological assemblage of macrophytes, plankton, zooplankton, benthic invertebrate and fish found elsewhere in this area of Hudson Bay. 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 (*Salvelinus alpinus*) were not captured in Melvin Bay during the baseline survey. The predominate fish was Greenland cod (*Gadus ogac*) followed by slender eelblenny (*Lumpenus fabricii*) and fourhorn sculpin (*Myoxocephalus quadricornis*).



#### **SECTION 5 • SITE ACTIVITIES**

#### 5.1. Nature of the Oil Product

The main fuel stored at the Agnico Eagle's Rankin Inlet Fuel Farm is P50 diesel. Appendix B includes the SDS for Diesel. All other fuels such as gasoline, Jet-A and possibly other grades of diesel are purchased in drums or 1 m<sup>3</sup> totes and brought to the mine site for storage, or purchased and brought to site from a supplier or contractor in Rankin Inlet. The main activities involving the P50 diesel at the facility are creating electricity, heating activity and different process (incinerator, treatment and process plant). The product is also used for mobile equipment.

#### 5.2. Bulk Transfer

The tankers delivering diesel fuel are anchored within Melvin Bay. From there, transfer hoses (Conduit) are connected to a shore-based pipeline for transfer of P-50 diesel fuel to the diesel tank farm.

Ballast is not required for the inward voyage as the tanker arrives at Rankin Inlet loaded with diesel fuel. After transferring the fuel to the tank farm, the tanker takes on ballast in its segregated ballast compartments before sailing out.

Due consideration is given to prevailing and expected wind, weather and tide conditions when undertaking ship-to-shore fuel transfers.

The tanker is discharging at a rate of approximately 275-300 m<sup>3</sup>/hour, not expected to exceed 400 m<sup>3</sup>/hour. Communication between the shore and the tanker is maintained throughout to ensure the safe transfer of the fuel and to avoid the overfilling of the tanks. The ship-to-shore transfer procedure being used is similar to the one used at communities throughout Nunavut.

#### 5.3. Measures to Minimize a Diesel Pollution Incident

The small tanker is anchored offshore in water of sufficient depth to allow for draught and tidal changes during transfer.

The transfer of the fuels uses sound, well-rehearsed practices, including 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 is in charge of the tanker fuel transfer equipment, while an onshore team is in charge of the land-based transfer equipment. Agnico Eagle has at least 2 trained personnel on the land to observe for any leak detection: a third-party contractor and the Warehouse Itivia Clerk. The role of the third-party contractor is to apply procedure and oversee operation during the fuel transfer. To do this, the third-party contractor needs to come on site at least one (1) day before the first day of transfer to receive the appropriate training given by the Environment Department. Fire-fighting, spill response equipment, and supplies are located on the tanker and onshore near the transfer point as required by TC. This includes readily available absorbent material (including absorbent pads) at the flexible hose connections on deck and onshore to quickly address minor spills at



predictable minor spill locations. Additionally, Agnico Eagle placed a shipping container with spill response supplies (including boat) and equipment at the Itivia Site Fuel Storage and Containment Facility area 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 m<sup>3</sup>/hr leads down to the shore from the diesel tank farm. Conduit from ship-to-shore are connected to the fuel-receiving manifold located onshore using dry-break coupling(s).

- Complete checklist before / during transfer for the on-land responsible (See Appendix C);
- Complete checklist, provided by Woodward, with vessel captain before transfer begin (Appendix D);
- Complete inspection / inventory of spill response shipping container before transfer;
- During the transfer, regular monitoring are undertaken for detection of incipient spills and leaks between the tanker and the tank farm;
- Radio test before transfer and at hour intervals during transfer between the personnel on land and the captain of the vessel;
- Transfer operations will be suspended should any leak be detected or filling alarm are activated;
- The onshore area and ship deck are well-lit as fuel transfers could continue around the clock;
- Have a good knowledge of the OPEP/OPPP requirement and protocol to follow in case of a spill by receiving a training / review each year before the transfer season; and
- The regular update of the OPEP/OPPP (minimally on an annual basis).

During the ship-to-shore transfer, Agnico Eagle has competent 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 the containment boom, diversion booming will be deployed to minimize migration of a spill throughout Melvin Bay. Adequate lighting is in place during all transfers, to allow for proper inspections of transfer locations around the clock. The lighting system intensity is not less than 54 lx at each transfer connection point of the vessel and OHF and a lighting intensity not less than 11 lx at each transfer operation work area around each transfer connection point of the vessel and OHF.

#### **5.4.** Permanent Containment Structure

At the connection of the ship's conduit to the OHF manifold, a permanent containment structure was erected for the transfer of product. This structure is capable of holding ~400 L of liquid in the case that there is a leak at the flange or residual drips out of the conduit or hard wall pipe.



Spill secondary containment will be in place under each joint for the conduit used to fill the Fuel tanks during fuel transfer. These secondary containment are only capable of holding 20-50 L of fuel and are in place to catch residual and be a first line of defense in the case of a leak.



#### SECTION 6 • MELIADINE RESPONSE TO EMERGENCIES

Oil handling facilities located north of latitude 60°N need to describe procedures to be followed to respond to a discharge of the total quantity of oil product that could be loaded or unloaded to or from a vessel, up to a maximum of 10,000 tonnes. This plan describes the procedures in place to respond to a spill up to 10,000 m<sup>3</sup>.

#### 6.1. Response Management Structure

Agnico Eagle has an ERT at the Meliadine site trained and responsible for controlling spills at the Itivia Site Fuel Storage and Containment Facility, and for assisting with medical and other emergencies that may occur at the mine site or the OHF.

#### 6.2. Logistics and Planning

The Emergency Measures Counsellor (EMC) ensures that site drawings and equipment lists are posted in key locations throughout the site so that important information is always readily available. This includes the following:

- Location and isolation points of energy sources;
- Location of emergency equipment (e.g., fire water pumps, fire extinguishers, monitors, self- contained breathing apparatus);
- Emergency procedures outlines, such as specialist firefighting, chemical neutralization;
- Location of equipment for combating pollution (e.g., booms, pumps, absorbents, dispersants);
- Availability of internal and external emergency medical support (e.g., hospitals, clinics, ambulances, medical supplies, personnel with medical or first aid training);
- Location of toxicity testing facilities (e.g., gas and water);
- Location of wind direction / speed indicators;
- Directions on how to contact the local or regional weather forecasting service;
- Location of PPE and directions on its proper use; and
- Location of first aid stations and muster areas.



The Incident Commander, EMC, and Health and Safety Superintendent know where, throughout the project site, all of this information is posted and where emergency equipment is stored. These individuals are also trained in the proper use of emergency equipment.



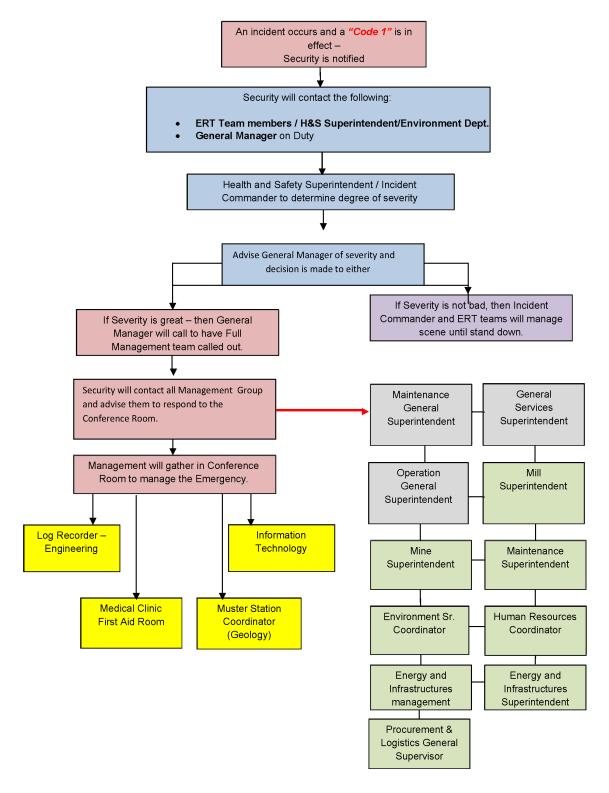


Figure 3: Depicts the Response Management System.

# **SECTION 7 • EQUIPMENT AND PPE**

The following sections describe the items that are available in the case of a spill at the Agnico Eagle Mines Limited's Rankin Inlet Fuel Farm OHF. All means will always be used to respond to a spill in a timely manner and ensure a prompt clean-up of any spill.

# 7.1. OHF Response Equipment for spills up to <5 m<sup>3</sup>

The following equipment (Table 1) is available right at the OHF during open water season in a shipping container designated for Environmental Emergency and can be deployed on scene within one hour, if it is safe to do, to contain and control the spill.

Table 1: Material available in the Spill Response Shipping container at Agnico Eagle's OHF

Agnico Eagle Boom Sea Container			
Item #	Description	QTY	
1	Achor set; 25kg anchor, 50' x ½" chain ballast, 50' rode line and 21" marker buoy	6	
2	Tow bridles with bullet float	4	
3	8" float x 12" skirt OptiMax II Boom – 25' sections	32	
4	Mini Max Hydraulic Skimmer with pump, Power Pack	1	
5	"June Bug" Trophy Boat with 140 hp engine	1	
6	½ polyester Yacht Braid rope (600' rolls)	10	
7	Drive pin anchors	5	
8	Slater anchors	5	
9	Wing anchors	5	
10	Absorbent Boom, 5" x 4 per bag	30	
11	Mustang Floater Suit	4	
12	Personal Floatation Devices (PFD)	12	
13	Oil resistant gloves	12	
14	Leather gloves	12	
15	Sledge Hammer with Fiberglass handle	2	
16	Spade – Long handle	2	
17	Fire Extinguisher – 20 lbs ABC with brackets	2	
18	Tyvex Suits XL	24	
19	Alberta Standard #3 First Aid Kit	2	
20	Storage Totes for Small Items	4	
21	Quick Tank (500 gallon/1893 ltrs.)	1	



# 7.2. Additional Response Equipment for Spills >5 m<sup>3</sup>

All equipment previously mentioned is available for use during any emergency situation for a spill greater than 5 m<sup>3</sup>. The following equipment would take time to get to the spill site, time would vary depending on distance from the spill. All equipment and resources can be deployed on scene in <6 hours for the recovery and clean-up of the spill.

#### 7.2.1. General Equipment

This section addresses the emergency response machinery, equipment, tools and other resources that can be made available on-site for spill counter measures.

#### 7.2.1.1. Mobile Equipment

Mobile equipment available to Agnico Eagle, that will be used for spill contingency by trained ERT, E&I and Mine Department Operators include:

- Graders
- Cranes
- Snowmobiles
- Vacuum Truck
- Loader
- Backhoe
- Bulldozer
- Forklift & Hysters
- Water Trucks

- Winch Trucks
- Pickup Trucks
- Generator Sets/Light tower
- Fire Truck
- Boat
- Fuel Trucks
- Bobcat
- Haul Trucks
- Snow Cat

All the previous listed equipment can be found on the Meliadine Project site. Wheeled equipment can be at the OHF in Rankin Inlet in 3-6 hours. Tracked equipment would have to be loaded and transported which would take 5-6 hours.

#### 7.2.1.2. Emergency Transportation

Emergency transportation that will be used under an emergency situation are:

- Seasonal Aircraft (fixed wing or helicopter)
- 4-wheel drive vehicles >70
- Snowmobiles x 9
- Boats and motor x 4

#### 7.2.2. Spill Response Kits and Containers

#### 7.2.2.1. Kits

Spill response kits are strategically located where required. Each department and work area is responsible for providing sufficient spill response kits in their respective work areas. The kits are kept in marked and accessible locations. The locations include all fuel storage areas, chemical storage areas and so on.



All of the mobile equipment for the Meliadine project (including heavy equipment) contains an emergency spill kit. Regular audits are completed to ensure these are in place.

## 7.2.2.2. Emergency Trailer

Agnico Eagle also have a spill equipped Environmental Emergency Trailer which is easily accessible and mobile (Table 2). The trailer is located at the Meliadine Site.

**Table 2: Contents of Environmental Emergency Trailer** 

Spill Trailer	Quantity
Blue Tarp	1
Red Jerry Cans	3
Life Jackets	3
Nitrile gloves	1 box
1/2in x 10ft chain	1
Sodo Lime, ~ 25 L container	3
2" water pump and ~ 20' hose	1
Hand pump, 1" diaphram pump	1
Rope, ~3/8" x ~50-100'	2
Emergency response HazMat apparel	1 tote
Spill boom	20
Bumper jack	1
shovels	3
Quartrex Bags	4
Absorbent pads, 100 pack	7
Mustang suit	1
Absorbent powder	1 pail (L)
Empty drums	3
HazMat Sockm 3" x 48"	5 boxes
Quick sorb powder	5 pails
Coveralls, (1 M; 2 XL)	3 Boxes
Black Pipes (4in)	2
Small Sledge Hammer (6 lb.)	2
Large Sledge Hammer (12 lb.)	1
Pliers	1
Screwdrivers	1
Empty Drum	1
Westcott wrench	1
Ball hitch for trailer (2-1/8")	1



# 7.2.2.3. AWAR Shipping containers

Along the AWAR there are two Environmental Emergency shipping containers containing spill response materials. These shipping containers are strategically placed along the road at water crossings at KM 7(Table 2) and KM 18 (Table 3).

Table 3: Contents of AWAR Spill Shipping container at KM 7

Items	Quantity
Empty drums (Sealed) 45 gal.	10
Quatrex Bags	10
Yellow liner (Q-bag liner) Roll	1+1/4
Mini Berm 3'x3'	2
Mini berm 2'x3'	4
Spill Kit (blue drum)	1
Tarp 8'x10'	3
Tarp 20'x30'	0
Tarp 30'x50'	1
Universal boom 5"x10'	20
Universal boom 8"x10'	20
Oil only booms 5"x10'	20
Maritime barrier (Baffle)	3
ABS pipe : 10' (4")	0
Absorbent Sheet (bags)-Universal	10
Absorbent Roll-Universal	10
Absorbent pellet (bag)	7
Oil gator absorbent (bag)	10
Plug pattie	0
Forklift crate (pallets)	6
Long handle round and square point shovel	6
Chisel point crowbar 16 lbs 57"	2
ce braker chisel	1
Sledgehammer 12 lbs 36"	3
Steel Rod bar (4')	16
Steel Rod bar (6')	10
stream skimmer	0
temporary storing device (old bladders, pipes and fitting)	0
CI agent granules (100lbs)	0
Oil spill kit (pail)	1
Yellow Nylon rope (bags)	2



Mini-Sledge Hammer	1
Ty-wrap (pack)	1
26' Tape	1
Multi-purpose shears	1
Crescent wrench	1
Hook knife	1
Mechanics wire roll	1
Side cutters	1

Table 4: Contents of AWAR Spill Shipping container at KM 18

Items	Quantity
Empty drums (Sealed) 45 gal.	10
Universal boom 5"x10'	12
Universal boom 8"x10'	12
Oil only booms 5"x10'	12
Maritime barrier (Baffle)	3
Absorbent Sheet (bags)-Universal	10
Absorbent Roll-Universal	10
Absorbent pellet (pail)	10
Forklift crate (pallets)	6
Yellow Spill Kit	1
Evac System	2
Silt Bags	2
Silt Fence	2
Yellow Liner Roll	1
Q-Bags	10
Rebar 3"	4
Rebar4"	10
Sledgehammer	1
Mini Sledgehammer	1
Nylon rope roll	2-Jan
'Pingouin''	1
Tarp	4
Bolt cutter	1
Side cutters	1
Knife	1
Mechanic wire roll	1



Yellow and red ruban	1 roll each
Ty-wrap (pack)	1
Pipe wrench	1
Westcott	2
Crowbar	1

#### 7.3. PPE

# 7.3.1. Spills <5 m<sup>3</sup>

The following PPE (Table 2) can be found in the Emergency Trailer and also in shipping container at the OHF:

**Table 5: PPE Available at OHF** 

Quantity	Equipment/tool name
3	Rain gear Pants and Top (L & 2-XL)
4	Rubber boots (size 8,10, 11, 12)
8	Rubber gloves
8	Goggles
24	Tyvex suits (L & 2 XL)
8	Safety glasses
14	Leather gloves
4	Mustang suits

This PPE intended for 4 persons. Additional PPE will be available from the Meliadine Project site.

# 7.3.2. Spills >5 m<sup>3</sup>

PPE is stored in bulk quantities at the Meliadine Warehouse. Quantities of each can be found on site using the JD Edwards system. In addition, the community of Rankin Inlet has certain PPE that can be purchased through Agnico Eagle after consulting the Agnico Eagle Procurement and Logistics department; however quantities of this PPE cannot be relied on within Rankin Inlet.



#### **SECTION 8 • COMMUNICATION**

The primary basis for communication is the phone system; back-up communication is also available via radios or satellite phone. For on-site communication, hand-held radios are mandatory for all employees working or travelling in remote areas from the OHF. Cell phones can be used as an additional means of communication however only CDMA service is available at the OHF. Back-up power sources and replacement batteries for communications equipment are available to provide continuous, uninterrupted operation either at fixed facilities or at emergency sites.

Key site personnel are accessible at all times by either portable radios, radios in vehicles, or office radios. The Health Care Professional carries a hand-held radio and is available at all times. Security personnel monitor the emergency channel twenty-four hours per day. Senior management personnel will rotate as "On-Call Managers" for after-hour emergencies. An accommodations list that highlights key personnel will be posted and updated as required.

In the event of a major emergency, all external communications for the project site and associated areas will be cut and all external contact will take place solely through the Emergency Control Center at the Meliadine Site.

During fuel transfer operation, the vessel master and the operator of the OHF always have a two-way communication on a continuing basis. This two-way communication is the direct communication by radio and the use of the cell phone.

At any time, if an emergency happens, the initial call will be a code one call on any operations channel to ensure a proper response. The procedure goes as such:

A *Code One* can be called by any person on site to report an accident, serious incident or fire which requires the response of the ERT (Emergency Response Team).

All Code One should be called on any operations channel or on any phone by calling 3911.

The procedure steps:

1. Call *Code One* over the two-way radio three (3) times on any operations channel or on any phone by calling 3911

When a code 1 is called over the radio, please respect the "Radio Silence" and "Work Stand Down" and if you are driving on the mine site road, please pull over and safely park your vehicle until an All Clear is given.

- 2. Give your name, exact location and the nature of the Emergency and number of workers involved
- 3. Upon notification of the *Code One*, the "dispatch" is the only person who will communicate with the person who initiated the Code One
- 4. The "dispatch" will contact the proper personal to notify them of the *Code One* Emergency.



5. If safe to do so the person who called the code one should stay at the location in case any additional information is required or to relay any development which may occur prior to ERT or proper personal arriving to take over the Emergency.

Once the **Code One** is called, the Incident commander, captain or dispatch determines whether all work in the affected ZONE will be stopped and equipment will be secured so as not to interfere with the response.

#### 8.1. Communication with the Public

Communication with public bodies during the state of emergency is the responsibility of the General Mine Manager or the Communications & Public Affairs Corporate Director.

In the case that the community of Rankin Inlet should need to be evacuated on short notice, the Emergency Response Team will immediately assist in the evacuation of the community. The General Mine Manager will immediately contact the Mayor of the Hamlet to inform them of the situation. In addition, if safe to do so, a radio notification should be immediately broadcasted on the Rankin Inlet Radio station.

#### 8.2. Hand Held Radio Communication

The relevant channels used for hand held radio communication on the Meliadine Mine, the AWAR, OHF, and associated facilities are as follows in Table 5.

**Table 6: Meliadine Radio Channels** 

All	<u>Surface</u>	<u>UG</u>	Open Pit	<u>ERT</u>
E&I Operation	E&I Operation	UG Operation	Pit Operation	ERT Operation ***
E&I Maintenance	E&I Maintenance	UG Ramp	Pit Maintenance	ERT Training***
Civil Works	Civil Works	UG Drill & Blast	Pit D&B	Code One Button***
Exploration	Exploration	UG Development		
Housekeeping	Housekeeping	UG Electric		
Warehouse	Warehouse	UG Construction		
Sealift ***	Sealift ***	UG-Surf		
		Maintenance		
Road	Road			
Mill	Mill			
Mill Shutdown	Mill Shutdown			
Environment	Environment			
Eng & Geo	Eng & Geo			
Training 1 ***	Training 1 ***			
Training 2 ***	Training 2 ***			
UG Operation	UG-Surf			
	Maintenance			



UG Ramp		
· ·		
UG Drill & Blast		
UG Development		
UG Electric		
UG Construction		
UG-Surf		
Maintenance		
Pit Operation		
Pit Maintenance		
Pit D&B		
ERT Operation ***		
ERT Training***		
Code One Button***		
PA General***		

<sup>\*\*\*</sup>Only authorized Radios

#### 8.3. Contacts

Internal contact information is contained in Table 6 for all Agnico Eagle personnel involved in spill recovery. Table 7 contains contact information for contractor contacts, which can be called for assistance with spill recovery. Table 8 is a list of government officials and external contacts to notify and provide subsequent reporting.

**Table 7: Agnico Eagle Contacts** 

Title	Name	Telephone No.
EVP, Sustainability, People and Culture	Carol Plummer	416.644.2056 ext. 4012056 Cell: 819.354.9877
Vice President, Environment and Critical Infrastructures	Michel Julien	416-947-1212 ext. 4013738 Cell: 514.244.5876
Vice President, Health, Safety, Social Affairs & People	Jason Allaire	819.759.3555 ext. 4608004 Cell: 819.355.2608
Corporate Director, Environment and Operational Risks	Jessica Huza	819.759.3555 Cell: 438.830.6797
Meliadine General Mine Manager	Jean-Claude Blais	819-759-3555 ext 4603170 Cell: 819.651.2970
H&S Superintendent H&S General Supervisor	Patrick Michaud Jamie Vinnicombe	819.759.3555 ext.46039673 819.759.3555 ext 4603906 Cell: 709.682.6447 819.759.3555 ext.4603113
Environment Superintendent	Sara Savoie	819.759.3555 ext. 4603175 Cell:819.856.9349
Environment General Supervisor	John Baechler	819.759.3555 ext. 4603212



Environment Coordinator	Randy Schwandt/Alexandre	819.759.3555 ext.4603996
	Langlais-Bourassa	
Environment Department		819.759.3555 ext.4603903, 4603202 & 4603925
On-site Nurses		819.759.3555 ext.4603011

**Table 8: Contractors and Local Contacts** 

Contractor	Telephone No.	Contact in Emergency for:
Nolinor Aviation Services	Protocol Agent 867.759.3555 ext. 4608008	Flight services for additional crew, or additional supplies
	Emergency (450)	
	476.0018	
	(888) 505.7025	
Calm Air	Baker Lake (867) 793-2873 Rankin Inlet (867) 645-2746	Flight services for additional crew, or additional supplies
Dyno Nobel Explosives Ltd.	(819) 759-3555 ext. 4603926	Heavy Equipment, Manpower, Emergency Blasting
Transport Desgagnés Inc. (Shipping)	(418) 692-1000	Dry Cargo
Woodwards Group	Craig Farrell (Marine	Fuel Hauler
	Superintendent/DPA)	
	Cell: (709) 541-0789	
Sarliaq Holdings Ltd.	Richard- Office	Equipment, manpower, Ground
	867.645.2653	transportation services
	Cell 867.645.1281	
	Silu - Office 867.645.2651 Cell	
	867.645.7645	
	James - Office	
	867.645.2759	
	Cell 867.645.6718	
	Kilabak - Office	
	867.645.2759	
	Cell 867.645.7851	
	Marvin -	
	Cell 867.645.6799	
Inuksuk Construction	John Winter –	Manpower, equipment, trades
	902.483.0398	personnel i.e., pipefitter, plumber,
	Tony King –	electrical
	902.478.4700	



	Inukshuk Construction – 867.645.4032	
--	---	--

**Table 9: External Contacts** 

Organization/Authority	Telephone Number	Fax Number
Canadian Coast Guard (in the event of a spill to the marine environment 24 hours) Coast guard e-mail for notification iqanordreg@innav.gc.ca	(867)979-5269	
CIRNAC Inspector (Kyle Amsel) Nunavut Regional Office (NRO) – Indigenous and Northern Affairs Canada (INAC) – Iqaluit	(867)645-2089 (867) 975-4500	(867) 975-4560
Department of Environment, Government of Nunavut	(867) 975-7700 Rankin Office	(867) 975-7742
Department of Fisheries and Ocean (DFO) – Nunavut Regional Office - Iqaluit	(867) 979-8000	(867) 979-8039
Emergency on call Nurse	(867) 645-6700	
Environment and Climate Change Canada - Curtis Didham, Operations Manager	867-222-1925	
Kivalliq Health Centre – Rankin Inlet	(867) 645-8300	(867) 645-8304
Kivalliq Inuit Association (KivIA)	(867) 645-5725	(867) 645-2348
NT-NU 24-Hour Spill spills@gov.nt.ca	(867) 920-8130	(867) 873-6924
Nunavut Water Board (NWB)	(867) 360-6338	(867) 360-6369
Rankin Ambulance or Fire Emergency	(867) 645-2525	
Rankin Hamlet Office	(867) 645-2895	(867) 645-2146
RCMP 24 Hour Emergency Number	(867) 645-0123	
Transport Canada Krista Olafsson, Regional Environmental Preparedness and Response	(431) 334-2581	
Workers' Safety & Compensation Commission	(867) 979-8500	(867) 979-8501



#### SECTION 9 • ROLES AND RESPONSIBILITIES

# 9.1. First Responder (Third Party Contractor (AmSpec Personnel) and Warehouse Itivia Clerk)

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:

- Oversee the fuel transfer operation;
- Follow procedure set-up in the OPEP/OPPP to prevent and minimize spill (See Section 5.3)
- In case of spill to ice or water or a major spill on land, initiate a Code 1 as per the MEL-HSH-PRO-3000 Code 1 Procedure to report the incident. In the case of a minor spill on land, contact the Environment department to report the incident;
- Identify and contain the spill, IF SAFE TO DO SO; commence preparing spill response equipment,
- Participate in spill response as a member of the clean-up crew.

# 9.1.1. Supervisor Fuel Discharge (Logistics Supervisor)

The responsibilities of the Supervisor are as follows:

\*\*Need to call a code one if this is a major spill or out of control

- Initiate a *Code One*; contact the Environment Department;
- Gather facts about the spill; and
- Participate in spill response.

# 9.2. Roles & Responsibilities of the Emergency Control Group

Below are the roles and responsibilities of the Emergency control group.

#### 9.2.1. Official In-Charge

The Official In-Charge (General Manager or designate) will take charge for overseeing and approving the overall emergency strategy. Immediate duties of the Official In-Charge include:

- Consult with the Incident Commander the status of emergency;
- Appoint an Emergency Log Recorder to maintain a written record of the time and events, including all discussions, instructions and decisions made by the Emergency Control Team;
- Issues specific tasks to the members of the Management Team as they arrive at the Control Room, as per this guideline;
- Brief the Emergency Control Team;
- Ensure that the safety of personnel is maintained, throughout the operation;
- Ensure procedures are in place for prompt dispatch of requested personnel, materials and equipment to the emergency area;



Arrange for all reports to be presented at specific intervals to the Emergency Control Team;

- Finalize the recommendations of the Incident Commander for rescue and recovery operations;
- The Official In-Charge is the only person authorized to release information to Government Agencies, Corporate Office or the Local Communities. He may delegate this activity to other members of the Emergency Control Team;
  - Verify all information you release;
  - Keep a record of all inquiries (media and non-media);
  - Do not speculate on causes;
  - Do not speculate on resumption of normal operations or when the problem will be solved; and
  - Advise that further updates will be forth coming.
- Notify the corporate management, if the following appear probable:
  - Fatalities;
  - o Injuries that could probably become items of local, regional or national media interest;
  - o There is a public health or environmental risk;
  - An incident involving chemicals where there is a large volume or the potential for over reaction (e.g., cyanide);
  - A spill of effluent or contaminated water or chemical substance to an area that lies outside the area of drainage control of the mine site (i.e., an external spill);
  - Mine operations may be stopped for more than two (2) days; and
  - Government authorities will become involved.
- Ensure all response teams, regulatory agencies and any other agency on emergency alert notice are advised when the emergency has ended;
- Ensure all documentation (i.e., notes, log sheets, written instructions, etc.) is gathered for the creation of the final report; and
- Participate in debriefing.

#### 9.2.2. General Superintendents

- Energy & Infrastructure, Operations and Maintenance will report to the Emergency Control Room and support the General manager/Designate in whatever capacity required;
- They will also ensure that the Superintendent/Designate in each of their respective Department's is aware of the emergency; and
- They will assist with the investigation and write up of the final report.

#### 9.2.3. Incident Commander: A Trained Staff Member (ERT Coordinators or Supt.)

The responsibilities of the Incident Commander include:

- Ensure Security has been notified of emergency;
- Ensure the evacuation procedures have been activated, if required;
- Ensure that there are sufficient ERT members available to respond to the emergency;
- Ensure that the ERT has back-up support, a standby Team;
- Ensure that ERT Team has refreshments and nourishment (if the emergency requires several hours to resolve);



• Assess the size and severity of the emergency and the likely consequences. Establish response priorities; as well coordinate prevention of fire or explosion;

- Maintain communication with the ERT Captain;
- Advise the Official In-Charge of the ERT Team's activities, regarding the rescue and recovery operations;
- Appoint sufficient personnel, equipment and outside services are available. Utilize the members
  of the Emergency Control Team to organize these resources;
- Advise Official In-Charge when the emergency situation is under control and give the "All Clear";
- Participate in emergency investigation;
- Coordinate an orderly return to normal operating conditions;
- Arrange a debriefing session, and utilize the services of all involved in resolving the emergency; and
- Assist to write the final report.

# 9.2.4. Emergency Response Team (ERT Team) Duties

- The ERT Team Members must report to the Fire Hall, when paged for a "Code One" emergency;
- ERT Team Members will be given instructions on the emergency by the Incident Commander;
- ERT Team Members will follow instructions from the Incident Commander and will not put the Team at risk; and
- The ERT Team Captain will maintain radio contact with the Incident Commander throughout the emergency.

# 9.2.5. Environmental Superintendent / Designate Duties

The following are the responsibilities of the Environmental Superintendent/Designate;

- Provide technical advice on probable environmental effects resulting from a spill and how to minimize them;
- Provide advice to the Official-in-Charge for appropriate spill response procedures;
- Ensure that Environmental Staff are available to direct the spill response action plan; and
- Assist with restoring of the Operations back to normal operating standards.

#### 9.2.6. Health and Safety Superintendent/Designate Duties

The Health and Safety Superintendent/Designate will be responsible for:

- Ensure that an Incident Commander is in place to oversee the ERT Teams;
- Ensure that all Management respond to the emergency and meet in the emergency control room;
- Oversee all activities that require Security or Nursing and arrange for Medevac transport, if required;
- Assist with getting a "head count" for the Official in-charge; and
- Assist with obtaining outside help if required.



# 9.2.7. Energy & Infrastructure Superintendent/Designate Duties

The following are the responsibilities of the Energy & Infrastructure Superintendent/Designate;

- Ensure that all employees are accounted for;
- Ensure that all ERT Crew Members respond to the "Code One" emergency;
- If the "Emergency" involves the site facilities, assist the Official-in-Charge with the action plan to deal with the emergency;
- Assist as required by supplying equipment and/or manpower; and
- Assist with restoring of the Operations back to normal operating standards.

### 9.2.8. Human Resources Coordinator/Designate Duties

The following are the responsibilities of the Human Resources (HR) Superintendent/Designate:

- Ensure that all HR employees are accounted for; and
- Provide assistance to the Official-in-Charge if there are employee issues, such as injuries, transportation requirements, etc.

#### 9.2.9. Health Care Professional (Nurse/Medic)

- The on-site health professionals are responsible for the following:
- Providing on-site first aid and other medical support;
- Establish a triage location if there are multiple casualties;
- Arrange for medevac transportation, if required; and
- Ensuring that the first aid room is maintained at all times, by using First Responders as support.

#### 9.2.10. Security (Security Officers)

The on-site Security Supervisor is responsible for the following:

- Ensuring that the Security officer has activated the appropriate level of emergency notification;
- Ensure that access points to the emergency are properly guarded;
- Notify the Rankin Inlet Gatehouse if the emergency involves the all-weather access road (AWAR); and
- Assist with other duties as requested by the Emergency Control Group.

### 9.3. Debriefing

After an incident has taken place and the location is brought back to normal operating standards a debriefing session will occur between ECG, Field Supervisors for the incident, ERT Captain(s), and the supervisor of the department involved with the spill.

The point of this debriefing session to determine the who, what, where, when, why, and how the incident occurred. It will also be the time to reflect on the steps that were taken to carry out the response and to



determine what was done right and what corrective measures need to be put in place to better the response if needed in the future.



#### SECTION 10 ● GENERAL SPILL PROCEDURES

#### 10.1. Coordination with Government Agencies

#### **SPILL RESPONSE PRIORITIES**

#### 1. Safety of the personnel working at or around the OHF

- a. Contact all personnel working around the spud barge area and make them aware
- b. Make contact with the vessels Captain to make aware the ship and stop the transfer of the product
- c. Wear appropriate PPE
- d. STOP the spill

#### 2. Make safe the facility

- a. Create a no entry perimeter to ensure unaware persons do not enter the area in which the incident took place.
- b. Barricade entrances to the facility with red danger tape
- c. Have a person designated to watch entrances to ensure no community persons come on to site.

# 3. Make the community of Rankin Inlet aware of the Spill to ensure measures can be taken to ensure safety of the community

- a. Contact Mayor / Hamlet counsel
- b. Fire department
- c. RCMP

### 4. Prevent fires or explosions / Stop all ignition sources

- a. Disconnect power supplies
- b. Do not contain diesel fuel if vapors might ignite
- c. Allow fuel vapors to evaporate before intervention

#### 5. Minimize the Spill

- a. When safe to proceed stop the spread of the product
- b. Use spill response equipment in emergency sea cans and ask for additional material if the spill is greater than 5  $\,\text{m}^3$

### 6. Notice and Report the Spill

- a. Spill needs to be reported to Transport Canada, Coast Guard, Environment and Climate Change Canada and Government of Nunavut immediately
- b. Other governing bodies will also be notified (see section 10.2)

#### 7. Environmental Impact

- a. Deter wildlife from entering spill area. Keep track of any wildlife mortalities
- b. Determine what impacts the spill will have on the Environment

#### 8. Clean-up

Commence clean-up of the spill



# 10.1.1. Coordination with TC Technical Service Environmental Response

In the event of a marine spill, TC Technical Service Environmental Response will be contacted immediately regarding the incident. Agnico Eagle will adhere to further recommendations from TC in response to the spill.

TC will also be contacted annually prior to the transfer of fuel at the OHF. As well, annual approval of this OPEP/OPPP will be required by TC Pollution Prevention Officer.

#### 10.1.2. Coordination with Canadian Coast Guard

In the event of a marine spill or in anticipation of a marine spill, the coordination with CCG is required and they will be contacted to report the incident (phone: (800) 265-0237, Superintendent Environmental Response Phone: (519) 383-1954, Cellphone: (519) 381-6186). A description of the event will be provided to the CCG Environmental Response. Agnico Eagle will adhere to further recommendations from CCG in response to the spill.

On an annual basis prior to the shipment of fuels to the OHF commencing, Agnico Eagle will contact the CCG and make them aware that the shipping season will be starting so they are aware that fuels will be travelling to Agnico Eagle's Rankin Inlet Fuel Tank Facility in Rankin Inlet. Also Agnico Eagle will inquire if there are any updates to "The Central and Arctic Regional Response Plan (2008)."

Agnico Eagle's Environmental department will annually, prior to fuel transfer, review "The Central and Arctic Regional Response Plan (2008)." A copy of this plan can be found in Appendix E for reference. The plan will be reviewed to ensure that the OPEP/OPPP and the actions of Agnico Eagle's OHF meet all requirements listed for an OHF.

#### 10.1.3. Other Government Agencies

Agnico Eagle will contact all government agencies associated with the Meliadine Gold Mine as is the norm for any reportable spill. These groups include: Government of Nunavut (GN) via 24 hour spill reporting line, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Department of Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada (ECCC), Nunavut Water Board (NWB), and Kivalliq Inuit Association (KivIA).

# 10.2. Reporting Requirements

As per the Canada Shipping Act. spills to the marine environment or anticipated spills to the marine environment will be reported to the TC Technical Service Environmental Response and CCG (contact numbers in Table 7). Marine spills will be reported in accordance with TC Guideline TP- 9834E, Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and /or Marine Pollutants and section 182(1)(a) of the Canadian Shipping Act, 2001. Others to receive the spill report include the KivIA, Hamlet of Rankin Inlet, DFO, ECCC, CCG and CIRNAC. Incidents that require media communications will be the responsibility of Agnico Eagle General Mine Manager or Public Affairs Corporate Director. The copy of NT-NU spill report form is provided in Appendix F.



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).

Agnico Eagle possesses a thorough internal spill reporting system that documents all spills for internal tracking. Regardless of the volume, these spills are all reported to the Environment Department and if the NT-NU spill limits are exceeded or if the spill occurs in a water body, the Environmental Department reviews the incident, produces the NT-NU spill report and submits the NT-NU spill report to the regulator listed above. Investigation of all reportable spills is completed by the Meliadine Environment Department.

# 10.3. Treatment and Disposal

All diesel recovered through the spill response and any contaminated material will be taken to the Meliadine site for recovery and, if applicable, incineration. It could also be packaged for disposal/recycling by a certified hazardous waste management company in southern Canada.

# 10.4. Resuming Unloading

The unloading of fuel from the tanker to the OHF will not resume if it hinders the response to the spill in any way. Unloading will resume once all problems are corrected, thus ensuring that the spill will not continue.



#### SECTION 11 • SPILL SCENARIOS AND RESPONSE STRATEGIES

Agnico Eagle 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. A mock spill exercise is conducted annually and the most recent summary is provided in the annual report.

As per Section 11(3) of the Environmental Response Regulations, a written description of the exercise will be provided to Transport Canada at least 30 days before the day on which the exercise is conducted.

# 11.1. Product Properties and Response Strategy

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**

Weight percent Evaporation = (5.8 + 0.045T) in(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 of the spilled diesel would have evaporated.

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

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 passage. This could include activating the Shipboard Oil Pollution Emergency Plan. The tanker has response equipment on board and a fully trained crew in spill response. This, coupled with a shore-based response under the OPEP/OPPP, ensures sufficient resources are available to control and recover as much diesel fuel as feasibly possible. The maximum expected quantity of P50 Diesel at the facility is 47M liters.

#### 11.2. Pipeline Safeguards

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;
- A pressure test is performed before the diesel transfer to confirm the system is free of leaks;



and



 Both the crew on the tanker and Agnico Eagle's shore based personnel are fully trained in spill response and spill recovery.

#### 11.3. Wildlife

During a spill event, Agnico Eagle will take care to deter any animal that will be near the spill area to minimize the risk to wildlife. In a case of mortalities, Agnico Eagle will track any mortality and report these numbers to the GN and ECCC.

#### 11.4. Scenarios

Three scenarios are considered, these being:

- 1. A spill between the ship and the flange of the OHF, the floating pipeline, resulting in a spill smaller than 1000 L of diesel fuel;
- 2. A major failure between the ship and the flange of the OHF, the floating pipeline, resulting in a spill greater than 1000 L but smaller than 5000 L of diesel fuel; and
- 3. Spill greater than 5000 litres up to 10,000,000 L.

In most instances Agnico Eagle personnel and/or contractors will be able to respond to the spill but if necessary, backup can be requested by calling for the assistance of the Agnico Eagle Emergency Response Team that is stationed at the Meliadine site located 35 kilometers away. The ERT can be at Rankin Inlet within 60 minutes to take charge of the spill response. Agnico Eagle will make every effort to have its equipment and resources deployed within 6 hours of an incident. The assumption upon which these scenarios are based are presented in previous sections of the document, namely sections 3 (time necessary to carry out a response) 4 (tides, current, meteorological conditions, surrounding areas), and 5 (nature of the oil products, types of vessels from which the oil product is unloaded).



# Scenario 1: Loss between the ship and the flange of the OHF, the floating pipeline, resulting in spill smaller than 1000 L of diesel fuel.

#### **Appropriate Actions** Resources a. Crew on the tanker trained in spill response. 1. Communicate with vessel and immediately b. Agnico Eagle's shore based personnel trained in spill stop the ship-to-shore transfer of fuel, if it's response and recovery. safe to do. The transfer should not restart in a c. Emergency Response Team to take control of the manner that would interfere with the spill response and recovery. immediate, effective and sustained response d. Spill response equipment and supplies maintained to the oil pollution. on board the tanker and also in the shipping 2. Make sure that the environment is safe for the facility and vessel personnel, the facility and container located on shore of Itivia Site Fuel Storage and Containment Facility. Rankin Inlet community. e. Save-alls (Pop-up pools/plastic totes) placed under 3. Make sure that risk of fire or explosion are the pipeline manifolds to collect minor spills. 4. Contact person found on OHF Declaration to f. Shore-based boat to position booms. g. Absorbent booms to recover spilled diesel on sea initiate the OPEP. 5. Minimize the oil pollution incident by h. Heavy equipment such as excavators, back hoes, containing the spilled fuel to spreading within vacuum trucks, and dump trucks available if beach is the marine environment, if it's safe to do. contaminated. 6. Notify CCG, local and regulatory authorities. 7. Containment boom is manned to prevent the escape of fuel outside the boom. 8. If necessary, place a diversion boom outside the containment boom to stop the diesel from getting onto the beach. 9. Spread absorbent material on the spill to capture it. 10. Monitor any fuel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary.



11. If diesel reaches the beach, excavate the contaminated beach material and take it to the

Landfarm area at the Meliadine site.

# Scanaria 2. Loss between the chin and the flance of the OUE the flasting pineline, resulting

<u>Scenario 2:</u>	Loss between the snip and the flange of the OHF, the floating pipeline, resulting
	in spill greater than 1000 L but smaller than 5000 L of diesel fuel.

1. Communicate with vessel and immediately stop the ship-to-shore transfer of fuel, if it's safe to do. The transfer should not restart in a manner that would interfere with the immediate, effective and sustained response to the oil pollution.

**Appropriate Actions** 

- 2. Make sure that the environment is safe for the facility personnel, the facility and Rankin Inlet community.
- 3. Make sure that risk of fire or explosion are minimized.
- 4. Contact person found on OHF Declaration to initiate the OPEP.
- 5. Minimize the oil pollution incident by containing the spilled fuel to spreading within the marine environment, if it's safe to do.
- 6. Notify CCG, local and regulatory authorities.
- 7. Containment boom is manned to prevent the escape of fuel outside the boom.
- 8. If necessary, place a diversion boom outside the containment boom to stop the diesel from getting onto the beach
- 9. Spread absorbent material on the spill to capture it
- 10. For larger amounts of spilled materials on water, use absorbent booms to collect the spilled diesel
- 11. Monitor any fuel that could not be recovered and collect water samples near the spill site and in the access passage for analysis. Repeat as necessary.
- 12. If diesel reaches the beach, excavate the contaminated beach material and take it to the Landfarm area at the Meliadine site.

# a. Crew on the small tanker trained in marine spill

response.

Resources

- b. Crew from the large tanker anchored outside the access passage.
- c. Agnico Eagle's shore based personnel trained in near shore spill response and recovery.
- d. Emergency Response Team trained for near shore spill response.
- e. Shore-based boat to position booms and spread absorbent material.
- f. Spill response equipment and supplies maintained on board the tanker, in Agnico Eagle shipping container locate at Itivia Site Fuel Storage and Containment Facility.
- g. Additional booms to place outside the containment boom.
- h. Additional boats can be transported from the Meliadine site as well local boats can be rented from local contracting companies
- i Heavy equipment such as excavators, back hoes, vacuum trucks, and dump trucks for waste materials.
- j. in the case of larger spills an Incident Command System will be set up at the Meliadine site as laid out in the Meliadine Emergency Response Plan.



# Scenario 3: A spill >5,000 litres up to 10,000,000 litres

In the case of an **extreme** spill, Agnico Eagle will follow the actions listed in Scenario 2 to complete the best clean up possible. Between the spill response equipment that the tanker delivering fuel has on board and the spill response supplies at the OHF, a spill up to the size of 5,000 - 10,000L will be able to be controlled and cleaned up. However, if the spill is greater than 10,000L, at this point Agnico Eagle will require external assistance with the clean-up.

The CCG and Transport Canada are made aware each year prior the fuel transfer, there is a possibility that under direction of CCG that their spill depot supplies located in Rankin Inlet may be used.



#### SECTION 12 ● PREVENTIVE MEASURES

Agnico Eagle recognizes 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 Ship Oil Pollution Emergency Plan (SOPEP) (Appendix A) as per the MARPOL 73/78 requirement under Annex I. All ships with 400 GT and above must carry an oil prevention plan as per the norms and guidelines laid down by the International Maritime Organization (IMO).

A SOPEP contains the following things:

- 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 equipment;
- 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 state control, oil clean up 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 (Marine Insight 2012).

The SCP, ERP and the OPEP/OPPP 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 Emergency Response Team. This includes comprehensive spill response exercise to practice the use of spill response equipment, including the use of booms and oil water separator.

The OPEP/OPPP is updated annually based on the results of spill exercises, changes to the infrastructure at Agnico Eagle's Fuel Handling Facilities, changes to procedures and other variables. The updated OPEP/OPPP is distributed to the Agnico Eagle Emergency Response Team, TC, the Kivalliq Inuit Association, the Municipality of Rankin Inlet and other agencies as appropriate.

#### 12.1. Training

The environmental department and ERT team received training from a response organization and as a result will be able to respond to or assist with incidents that may occur at the OHF.



#### 12.1.1. Meliadine site Personnel

A designated Emergency Response Team consisting of on-site personnel is established at Agnico Eagle's Meliadine Project site. Agnico Eagle ensures that the ERT is trained and staffed in sufficient number so that the ERT is present at all times. All members of the team are trained and familiar with emergency and spill response resources, including their location and access, the SCP, the OPEP/OPPP and appropriate emergency spill response methodologies. The ERT have up to 20 members, each of whom will be trained.

The training includes the following:

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

The Environmental Department regularly provides tool-box sessions to give information on spill response and reporting procedures.

Basic spill response training is completed by all Agnico Eagle employees and contractors working on the Meliadine project as part of the mandatory induction for all personnel arriving on site. ERT members receive more extensive spill response training and learn how to respond while wearing personal protective clothing, use of specific spill response gear, proper deployment of absorbents and maritime boom.

# 12.1.2. OHF Personnel Training

Prior to the first discharge of fuel from the vessel to the OHF, a mandatory training takes place. This is a review with all the personnel responsible for the shore based portion of the fuel transfer, including the third party contractor and the Rankin Inlet supervisor, the current OPEP/OPPP and make them aware of the procedures to follow in case of a spill before the first fuel barge arrives.

A mock spill training takes place on a yearly basis to practice the response of all involved personnel to a hypothetical spill situation.



# 12.1.3. Boat Operators

All people involved in the supervision during operation and / or on the spill response has completed the training course for the pleasure craft operator. Records of pleasure craft operator certification is retained by the Meliadine Training department.



# SECTION 13 • WOODWARD

Please refer to Appendix A for the contact information for Woodward during the barge season.



#### SECTION 14 • REFERENCES

Canadian Coast Guard, Central & Arctic Region, 2008. Regional Response Plan.

Finga, M.F. 2013. Modeling Oil and Petroleum Evaporation Journal of Petroleum Science Research. v. 2, isaue 3, July 2013

Marine Insight. 2012. What is Ship Oil Pollution Emergency Plan (SOPEP)? URL: 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

Moller, T.H., R.S. Santner. 1997. Oil Spill Preparedness and Response: the Role of Industry, 1997 International Oil Spill Conference, Technical Report IOSC-005.

National Oceanic and Atmospheric Administration. URL: http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/in-situ-burning.html

Transport Canada, Canada Shipping Act, 2001

Transport Canada, Environmental Response Regulations (SOR/2019-252)

Transport Canada, Environmental Response Standards Regulations (TP 14909)

Transport Canada, Oil Handling Facilities Standards, TP12402E

Transport Canada (1995). Response Organizations Standard (TP- 12401)

Transport Canada, Vessel Pollution and Dangerous Chemicals Regulations (SOR/2012-69)

Transport Canada (1997). Arctic Waters Oil Transfer Guidelines (TP-10783)

Transport Canada (1997). Arctic Waters Oil Transfer Guidelines (TP-10783E). Prairie and

Northern Region, Marine (AMNS - OTT)

Transport Canada (2008). Environmental Prevention and Response National Preparedness Plan (TP-13585)

Transport Canada (2009). Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and /or Marine Pollutant (TP- 9834E)

