

## **APPENDIX 17    2024 MOCK SPILL SCENARIO REPORT**

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# AGNICO EAGLE

MELIADINE GOLD MINE

## Rankin Inlet, Itivia OHF – Mock Spill Scenario Report 2024

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TABLE OF CONTENTS

Table of Contents..... i

Purpose ..... 2

Mock spill scenario ..... 3

Roles and responsibilities..... 4

Review of the emergency response equipment ..... 5

Response ..... 6

Post-Mortem ..... 7

APPENDIX A • Photo documentation..... 8

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## PURPOSE

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The annual mock spill is directed at operations where there is potential for either land-based or marine-based spills to occur. It is intended primarily for on-site first-responders who may or may not have any experience in managing spills of petroleum products. The mock spill attempts to demonstrate using verbal instruction and a practical effective exercise which can be taken to prevent spills and/or reduce the impacts that result from a potential spill.

The mock spill emphasizes the need to avoid situations that are a potential danger to human health and safety.

As a significant portion of yearly spills in Nunavut involve petroleum products, emphasis is placed on diesel as this is the product that will be transferred at the Rankin Inlet, Itivia Oil Handling Facility (OHF). Diesel fuel is also the substance that is stored in the largest quantity on site.

The mock spill attempts to capture the scenarios likely to be encountered by front line staff at the Itivia OHF.

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## MOCK SPILL SCENARIO

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On September 21<sup>st</sup>, 2024, during a routine inspection of the vessel-to-dock fuel transfer system, AmSpec personnel notices a seal failure at the joint connecting the ship's fuel hoses to the dockside pipeline. This pipeline channels fuel to the main storage area (Itivia OHF). The fuel starts to leak significantly, spraying over the secondary containment measures in place. As a result, the spilled fuel, estimated to be around 2,000 liters of diesel, begins to spread towards Melvin Bay.

This scenario simulates a high consequence spill to the shoreline and a waterbody as well as a potential fire hazard.

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## ROLES AND RESPONSIBILITIES

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- Incident Commander (1 ERT Personnel)
  - Assess the size and severity of the emergency and the likely consequences. Establish response priorities and deploy the ERT as required.
- ERT Captain (1 ERT Member)
  - Maintain direct contact with the Incident Commander and execute the directives provided by the Incident Commander through the ERT.
- Logistics Personnel (1 Logistics Personnel)
  - Provide support to the Incident Commander and interface with the sealift and AmSpec personnel.
- Environment Personnel (2 Environment Personnel)
  - Advise on and document the events of the mock spill scenario. Lead the debrief and assign and action improvement action items as required.
- AmSpec Personnel (AmSpec was not present as no fuel transfer was occurring, Agnico Eagle covered for this role: 1 Environment Personnel)
  - Inspect and monitor the fuel transfer. Respond to environmental emergencies related to the fuel transfer.
- Emergency Response Team (7 ERT Personnel)
  - The ERT team members must report to the fire hall, when paged for a “Code One” emergency.
  - ERT 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.

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## REVIEW OF THE EMERGENCY RESPONSE EQUIPMENT

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**09:00** The ERT Captain and Environment Personnel provided a comprehensive overview of the Itivia OHF, including a review of the Oil Pollution Emergency Plan/Oil Pollution and Prevention Plan (OPEP/OPPP) with a focus on general spill response procedures and priorities (Section 10). This session covered health and safety considerations, roles and responsibilities, OHF security, and the locations of response equipment at the Itivia OHF.

**09:30** The Environment Department conducted a detailed review of the seacans' contents with ERT personnel. The Environmental Technician explained the available equipment in the seacans and where to find the current version of the OPEP/OPPP. The following response equipment was reviewed with attendees:

- Floating Hydrocarbon Booms
- Hydrocarbon Rolls
- Hydrocarbon Pads
- Lined Quatrex Bags
- Empty 205 L TDG drums
- Spill Trays (drip trays)
- Personal Protective Equipment (PPE)
- Oil Skimmer
- Containment Booms (reviewed how to properly assemble)
- Hand Tools
- Trophy boat/140hp engine and location of keys
- ATV (how to pull start it if battery fails)

**10:00** The Environmental Coordinator provided all responders with a detailed overview of the roles and responsibilities of the AmSpec Personnel stationed at the Itivia OHF during ship-to-shore fuel transfers.

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## RESPONSE

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**10:15** AmSpec Personnel (Environmental Coordinator filled this role for the mock spill scenario) noticed a seal failure at the joint connecting the ship's fuel hoses to the dockside pipeline. AmSpec immediately contacted the ship captain to halt the fuel transfer, notified the logistics team for support, and initiated a "Code 1" to inform the Incident Commander of the spill. ERT personnel were notified, and their support was requested.

**10:25** The ERT Captain requested that logistics personnel suspend all work at the Itivia laydown, secure the area by blocking entryways to the Itivia OHF, and prevent unauthorized personnel from entering the area. Sarliaq Holdings Ltd. was also contacted for support (Sarliaq Holdings' phone number was called to ensure it worked).

**10:28** The Incident Commander assessed the severity of the spill and provided a response plan to the ERT Captain. The ERT Captain briefed the ERT and conveyed the response plan. Some ERT members were tasked with preparing the marine boom at the shoreline for deployment for if fuel reached Melvin Bay. The ERT utilized the ATV (ATV started with no issues) to move the marine booms. The remaining ERT members gathered absorbent pads and booms to deploy near the spill to prevent migration to Melvin Bay.

**10:41** The ERT Captain directed the team to deploy the marine booms and install anchors along the shoreline. Three ERT members were instructed to retrieve penguin axes and additional land absorbent booms. Due to wind speeds of 40 km/hr gusting to 52 km/hr, the Trophy boat was not deployed to ensure the safety of staff.

**11:30** The spill response team completed anchoring the marine booms to prevent movement with the tide/wind. Additional land booms were deployed.

**12:10** The spill migration was brought under control, and the area was secured. Spill remediation activities were directed by the ERT Captain, and booms and response equipment were collected from the shoreline for disposal.

**12:30** The practical scenario concluded with participants' actions and responses to the spill deemed satisfactory. It was determined that all group members had a sufficient understanding of the roles and responsibilities of all spill responders.

**13:00-14:00** A postmortem was conducted to review what went well and identify areas for improvement in future spill responses.



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## POST-MORTEM

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After the mock spill scenario, all personnel involved in the response conducted a debriefing about the mock spill and to identify potential opportunities to improve the overall response:

- Request E&I to create a hatch on the backside of the fuel transfer connection point which would allow a pump to be used inside the secondary containment in case of an emergency and allow for alternative access to the isolation valve.
- Relocate the sea-can containing marine booms to the other spill response equipment.
- Some ERT members who participated in the previous year's mock spill event were pleased that the Trophy boat trailer was replaced.
- Trophy boat was parked near the emergency spill response sea-cans, making it difficult to remove the ATV from inside the sea-can. Trophy boat should be parked a few meters away to allow ease of access.
- During the mock spill a sledgehammer broke; this should be replaced as soon as possible.
- If possible, have a zodiac stationed at Itivia along side the Trophy boat in case of tidal changes which would prevent the Trophy boat from being used.

## APPENDIX A • Photo documentation



**Photo 1:** Hatch to be installed at the fuel transfer manifold to allow for better/alternative access.



**Photo 2:** Spill response equipment being installed.



**Photo 3:** Marine booms being installed around the spill area.



**Photo 4:** Marine booms installed along shore (in a real scenario these would be deployed in water)



**Photo 5:** ERT reviewing emergency spill response equipment.