

APPENDIX 16 2023 MOCK SPILL SCENARIO REPORT



AGNICO EAGLE

MELIADINE GOLD MINE

Rankin Inlet, Itivia OHF – Mock Spill Scenario Report 2023



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PURPOSE

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 damage that results 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).

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

MOCK SPILL SCENARIO

On Monday September 25th, 2023, at 12:05 during a routine inspection of the ship to shore fuel transfer line an Intertek employee notices a leak from the flange that connects the ship transfer hoses to the shore-based pipeline that transfers fuel to the tank farm. The fuel leak overtops the secondary containment and begins to migrate towards Melvin Bay. The spill is estimated to be approximately 2,000 liters of diesel.

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

A total of ten (10) individuals participated in the mock spill scenario, including eight (8) Agnico Eagle emergency response team (ERT) members and two (2) Agnico employees from the Environment department. The Rankin Inlet Fire Department was also contacted but were unable to participate in the mock spill event.

ROLES AND RESPONSIBILITIES

- Incident Commander
 - Assess the size and severity of the emergency and the likely consequences. Establish response priorities and deploy the ERT as required.
- ERT Captain
 - Maintain direct contact with the Incident Commander and execute the directives provided by the Incident Commander through the ERT.
- Logistics Personnel
 - Provide support to the Incident Commander and interface with the sealift and Intertek personnel.
- 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.
- Intertek Personnel
 - Inspect and monitor the fuel transfer. Response to environmental emergencies related to the fuel transfer.

REVIEW OF THE EMERGENCY RESPONSE EQUIPMENT

09:00 ERT Captain and Environment Personnel provided an in-class overview of the Itivia OHF, review of the Oil Pollution Emergency Plan/Oil Pollution and Prevention Plan (OPEP/OPPP) contents related to general spill response procedures and priorities (Section 10). This included health and safety considerations, roles and responsibilities, OHF security and locations of the response equipment at the Itivia OHF.

11:00 The Environment Department reviewed the contents of the seacans with ERT personnel.

11:30 The Environmental Technician explained all the equipment available in the seacans as well as where to find the current version of the OPEP/OPPP. The following response equipment were 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

11:50 Logistics personnel provided all responders a detailed overview of the roles and responsibilities of the Intertek Personnel who are stationed at the Itivia OHF during the ship to shore fuel transfers.

RESPONSE

12:05 Sealift personnel discover leak at the flange where the fuel transfer hose connects to the land-based fuel transfer line. Sealift personnel immediately notifies the Woodward's Captain to request an emergency stop of the fuel transfer. The ERT Captain is also notified of the spill event.

12:06 The ERT Captain calls a "Code 1" to inform the Incident Commander that a spill has occurred. ERT personnel are notified and support is requested from them.

12:08 ERT Captain requests that the Sealift personnel suspend all work at the Itivia laydown, secure the area by blocking the entryways to the Itivia OHF and prevent unauthorized personnel entering the area.

12:10 The Rankin Inlet Fire Department is notified of the spill and is asked for additional support if required to secure the area or aid in the response effort.

12:11 The Incident Commander assess the severity of the spill event and provides a response plan to the ERT Captain. The ERT Captain provides a briefing and conveys the response plan to the ERT. All ERT members are directed to don the appropriate PPE. A few ERT members are requested to prepare the marine boom at the shoreline for deployment in the event that fuel reaches Melvin Bay. The remaining ERT members are directed to gather absorbent pads and booms to be deployed in the vicinity of the spill to prevent migration to Melvin Bay.

12:16 The ERT Captain directs the ERT to deploy the marine booms and install anchors for the booms along the shoreline. The ERT Captain directs three ERT members to retrieve three penguin axes and additional land absorbent booms.

12:18 Spill response team finishes anchoring the marine booms to keep them from moving with the tide/wind. Additional land booms are deployed.

12:20 The spill migration is now under control, and the area is secured. Spill remediation activities are directed by the ERT Captain. Booms and response equipment are collected from the shoreline for disposal.

12:21 Practical scenario is concluded; the participants' actions and response to the spill are deemed satisfactory and it is determined all group members have a sufficient understanding of the roles and responsibilities of all spill responders.

13:30-15:00 As a complement to the mock spill scenario, the ERT conducted an in-water rescue scenario in Melvin Bay. This allowed all responders to become familiar with the launching and use of the spill response boat and using response PPE (mustang suits) in real conditions.

POST-MORTEM

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

- General comments from the mock spill participants were that roles and responsibilities were clear as well as the directions provided by the ERT Captain. Responders were comfortable with the response equipment and their function.
- Put marine boom stakes and anchors in the same seacan as the booms. This was action was completed immediately after the debrief.
- It was noted that the shared boat launch at Itivia is a very high-traffic area. If a real spill response were required, the boat launch would need to be cleared when securing the area prior to a response. Barricading the entire access to Itivia will include the boat launch in the future.
- Repair or purchase a new trailer for the spill response boat.
- Minor engine issues were encountered during the in-water component. This was reported to the maintenance department immediately after the mock spill scenario.
- Schedule the 2024 mock spill event with Nunatta Environmental Services to benefit from external expertise as has been done in the past.

APPENDIX A • Photo documentation



Photo 1: Mock spill scenario location (leak from piping flange).



Photos 2 & 3: Assembly of marine booms



Photo 4: Deployment of absorbent booms on land



Photo 5: Final layout of the spill containment booms



Photo 6: *In-water training in Melvin bay*