

Spill Contingency Plan

For

Airside Surface Rehabilitation - Whale Cove, NU

5581 Nunavut Ltd.

May 20,2025

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1. Introduction

The purpose of this Spill Contingency Plan is to address potential environmental spill incidents that may occur during the airside surfaces rehabilitation project in Whale Cove, Nunavut. This plan is designed to protect the local natural environment from adverse impacts and to ensure the safety of personnel and equipment. It outlines spill response procedures, detailed emergency measures, and guidelines to support rapid containment and clean-up of hazardous material releases.

This plan is complementary to existing Health & Safety protocols and does not replace any pre-established procedures. All personnel working on-site are required to read, understand, and undergo training on the contents herein to maintain a high standard of safety and environmental protection.

2. Purpose and Scope

Purpose:

- To provide a clear, step-by-step response strategy for fuel and chemical spills.
- To ensure rapid containment, clean-up, and reporting of any spill incident.
- To minimize environmental impact, protect local waterways and wildlife, and ensure regulatory compliance.

Scope:

- Applies to all on-site activities where hazardous materials, including diesel, gasoline, hydraulic oil, and lubricants, are handled or stored.
- Covers all aspects from preventative measures to emergency response, including spill response on land, water, and in cold weather conditions.
- Includes specialized procedures for refueling equipment both at the airstrip and within the quarry.

3. Applicable Regulations

This plan is developed in accordance with federal and territorial requirements, specifically including:

- **Guidelines for Spill Contingency Planning** – Indian and Northern Affairs Canada (INAC, 2007)
- **Environmental Protection Act (Nunavut)**
- **Transportation of Dangerous Goods Act and Regulations**
- **Fisheries Act**
- **Canadian Environmental Protection Act**

Each spill response plan must include:

- Identification of the owner or responsible authority.
- Designation of 24-hour contacts for activating the plan.
- Detailed descriptions of storage facilities, contaminants, and site maps.
- Step-by-step procedures for containment, clean-up, and reporting.
- An inventory and location of response equipment.
- Documentation of the plan's preparation and review dates.

4. Project Description and Locations

4.1 Whale Cove Airport Worksite

- **Description:**
Upgrades and rehabilitation activities involve grading, aggregate placement, in addition to resurfacing of the runway and runway strips.
- **Considerations:**
Spill risks include fuel from mobile tanks and equipment during refueling operations. Special attention is given to preventing spills on compacted gravel and preventing run-off into local habitats.

4.2 Quarry and Haul Route

- **Description:**
The crushed aggregates used in the rehabilitation are sourced from a quarry located approximately 6 km north of the airstrip.
- **Considerations:**
Hauling operations, on-site refueling, and material transfers require additional precautionary measures to guard against fuel spills and contamination of off-site areas.

5. Contacts and Regulatory Authorities

5.1 Company Contacts

Name	Job Title	24-Hour Contact
Nick Hayes	Site Superintendent	(709) 763-5624
Dave Anthony	Site Foreman	(709) 680-2663
Jon Cutler	Construction Manager	(709) 685-8819

5.2 Regulatory Contacts

Agency/Authority	Contact Information
Emergency Spill Hotline	Phone: (867) 920-8130 Fax: (867) 873-6924
INAC Water Resources Inspector	Phone: (867) 975-4295
Nunavut Water Board	Phone: (867) 360-6338
Transport Canada (TDG Enforcement)	Phone: (867) 979-5269
Environment Canada – Emergencies	Phone: (867) 975-4464

Note: Specific local contacts for Whale Cove have not yet been finalized. This section should be updated once verified local directories become available.

6. Potential Contaminants and Spill Scenarios

6.1 Primary Contaminants

- **Diesel Fuel:**
Used in mobile tanks and equipment.
- **Gasoline:**
Utilized in auxiliary support vehicles.
- **Hydraulic Oil and Lubricants:**
Essential for heavy machinery operation.
- **Antifreeze and Coolants:**
Utilized in engines and related systems.

6.2 Possible Spill Scenarios

- **Equipment Failures:**
Leaks or ruptures due to tank or hose failures.
- **Operational Errors:**
Overfilling during refueling or valve malfunctions.
- **Accidental Impact:**
Vehicular accidents, collisions, or vandalism.
- **Environmental Factors:**
Heat expansion or rapid temperature fluctuations leading to over-pressure in containers.

Spill sizes are classified as:

- **Small:** Less than 10 litres.
- **Medium:** More than 10 litres but less than 100 litres.
- **Large:** Greater than 100 litres.

7. Reportable Spill Quantities

Any spill that exceeds the thresholds outlined below or occurs near sensitive environments (e.g., fish-bearing waters, critical habitats) must be reported immediately:

Item	TDGA ² Class	Contaminant	Amount Spilled
1	2	Explosives	Any amount
2	2.1	Compressed Gas (flammable)	Any amount of gas from containers with capacity greater than 100 kg
3	2.2	Compressed Gas (non-corrosive, non-flammable)	Any amount of gas from containers with capacity greater than 100 kg
4	2.3	Compressed Gas (toxic)	Any amount
5	2.4	Compressed Gas (corrosive)	Any amount
6	3.1, 3.2, 3.3	Flammable Liquid	100 L
7	4.1	Flammable Solid	25 kg
8	4.2	Spontaneously Combustible Solids	25 kg
9	4.3	Water Reactant Solids	25 kg
10	5.1	Oxidizing Substances	50 L or 50 kg
11	5.2	Organic Peroxides	1 L or 1 kg
12	6.1	Poisonous Substances	5 L or 5 kg
13	6.2	Infectious Substances	Any amount
14	7	Radioactive	Any amount
15	8	Corrosive Substances	5 L or 5 kg
16	9.1(in part)	Misc. products or Substances Excluding PCB Mixtures	50 L or 50 kg
17	9.2	Environmentally Hazardous	1 L or 1 kg
18	9.3	Dangerous Wastes	5 L or 5 kg
19	9.1 (in part)	PCB Mixtures of 5 or More Parts Per Million	0.5 L or 0.5 kg
20	None	Other Contaminants	100 L or 100 kg

These thresholds, derived from the Environmental Protection Act and associated guidelines, must be strictly adhered to during any spill incident.

8. Spill Response Procedures

Spill response procedures shall follow the requirements outlined by the Government of Nunavut (GN) to ensure prompt, safe, and compliant management of any spill incidents during the project. As directed by GN:

- All spill materials are to be treated as hazardous waste and must be disposed of in accordance with the approved Hazardous Waste Disposal Plan.
- All spills, regardless of size, must be reported immediately to the 24-hour Spill Report Line.
- A detailed report must be submitted to GN, including information on the size of the spill, type of material, cleanup actions taken, and precise location.
- GN may request confirmatory soil sampling to verify that spill cleanup has been adequately completed.

These requirements are mandatory and will be incorporated into site-wide environmental protection protocols for the duration of the project.

8.1 Spills on Land

- **Immediate Actions:**
 - Extinguish all ignition sources (shut off engines, enforce no-smoking).
 - Identify the spilled material.
- **Safety and Containment:**
 - Confirm the area is safe for responders.
 - Use available materials (tarps, absorbents) to stop the spill at its source.
 - Build temporary dykes or barriers with soil or absorbents to prevent the spread.
- **Notification and Cleanup:**
 - Report the spill immediately to the on-site supervisor.
 - Contact the Emergency Spill Hotline if spill size is significant.
 - Collect and store contaminated material in approved containers.
 - Pump any contained liquids into drums where feasible.
 - Complete a detailed Spill Reporting Sheet and submit it to the INAC Water Resources Inspector within 30 days.

8.2 Spills on Water

- **Immediate Actions:**
 - Disable ignition sources and identify the material.
- **Containment:**
 - Deploy sorbent booms across the spill perimeter.
 - For narrow waterways, install booms across the stream, anchoring them securely on both banks.
- **Notification and Cleanup:**

- Report the incident to the facility supervisor and use the Emergency Spill Hotline.
- Collect contaminated materials using booms and sorbent sheets.
- Store all collected material in secure containers.
- Complete the necessary documentation and report the spill within 30 days.

8.3 Spills on Snow and Ice

- **Immediate Actions:**
 - Eliminate all sources of ignition.
 - Assess the safety of entry, taking into consideration ice thickness.
- **Containment:**
 - Stop the spill at the source using available means (plug leaks, close valves).
 - Deploy absorbents to build a snow or soil dyke.
- **Notification and Cleanup:**
 - Report immediately to the supervisor and contact the Emergency Spill Hotline.
 - Collect contaminated snow in high-density polyethylene bags or drums.
 - Document the incident with precise GPS coordinates and report within 30 days.

9. Additional Spill Delineation and Monitoring

For spills where the majority of contaminants cannot be recovered:

- **Investigation:**

Additional subsurface investigations (including test pits, boreholes, and monitoring wells) will be conducted to assess the lateral and vertical spread.
- **Consultation:**

A qualified environmental consultant will be engaged to determine remediation strategies.
- **Action Plan:**

The results of the investigation will guide the development of a formal remediation plan aimed at restoring impacted soil and groundwater to acceptable levels.

10. Spill Kit and Training Requirements

10.1 Spill Kit Contents (Minimum Requirement)

- **Equipment:**
 - 1 × 205-litre open-top steel drum with lid, bolting ring, and gasket.
 - 1 × Spark-proof shovel.
 - 1 × Package of 10 disposable 5-mil polyethylene bags (approx. 65 cm × 100 cm).
 - 4 × Sorbent booms (approx. 12.5 cm × 3 m each).
 - 1 × 10-kg bag of sorbent particulate.
 - 1 × Bail of sorbent sheet (approx. 50 cm × 50 cm, 100 sheets per bail).
 - 1 × Plastic tarp (approx. 5 m × 5 m).

- 2 × Pairs of oil-resistant gloves.
- 2 × Pairs of splash-protective goggles.

10.2 Additional Supplies

- Additional 205-litre drums, shovels, polyethylene bags, sorbent booms, and particulate for extended spill responses.
- Extra pairs of gloves and goggles as necessary.

10.3 Training Requirements

- The Spill Contingency Plan is reviewed annually and updated as needed.
- All site personnel receive a copy of the plan and attend mandatory training sessions covering:
 - Hazardous material handling and storage.
 - Use and interpretation of Material Safety Data Sheets (MSDS).
 - Spill containment and cleanup techniques.
 - First-response actions to mitigate environmental and safety risks.
- Periodic, hands-on spill kit drills will be conducted to ensure preparedness.

11. General Safety Practices and Site Rules

To ensure a safe working environment and effective spill response, the following site rules are in effect:

- **Hygiene and Contamination Prevention:**
 - Eating, drinking, chewing gum, and smoking are strictly prohibited in contaminated or potentially contaminated areas.
 - Personnel must wash hands and faces thoroughly before eating or drinking if exposure to hazardous materials is suspected.
- **Site Awareness:**
 - Remain alert to hazardous conditions such as strong odors or potentially toxic vapors.
 - Continuously monitor wind direction, equipment access, and emergency communication channels.
- **Operational Communication:**
 - Maintain clear, constant communication among team members during spill events.
 - Report any potential hazards immediately to supervisors.
- **Ongoing Education:**
 - Participate in safety meetings and refresher training sessions that review spill response protocols and site-specific hazards.

12. Refueling Procedures for Equipment

To minimize the risk of spills during refueling operations, separate procedures are established for the airstrip and quarry locations.

12.1 Refueling Procedures at the Airstrip

- **Designated Refueling Zone:**
 - All refueling operations are to be conducted in a clearly marked, designated area on a stable gravel pad.
- **Procedure:**
 - Ensure that the refueling area is free of ignition sources.
 - A trained personnel supervisor must oversee the refueling operation.
 - Utilize spill containment berms or sorbent mats beneath the refueling point.
 - A designated spotter monitors for leaks and ensures proper nozzle engagement.
 - Engines and equipment must be turned off during refueling.
 - Any minor spills must be immediately contained using on-site spill kits; larger spills are to be reported immediately.
- **Post-Operation:**
 - Verify that all spill containment materials are intact and replenished if needed.
 - Document the refueling operation in the site log.

12.2 Refueling Procedures at the Quarry

- **Designated Refueling Area:**
 - Refueling at the quarry is conducted on a cleared gravel pad isolated from active aggregate stockpiles.
- **Procedure:**
 - Verify the area is free of environmental hazards and ignition sources.
 - A supervisor must ensure that equipment is safely shut down before refueling begins.
 - Place portable containment trays under fuel tanks and vehicles during the refueling process.
 - Refueling should be conducted during daylight hours or with sufficient artificial lighting.
 - Operators must ensure stable ground conditions; if the terrain is uneven or frozen, refueling should be postponed or conducted with additional precautions.
 - In the event of an overfill or spill, immediate containment with absorbent materials is required, followed by notification to the facility supervisor.
- **Post-Operation:**
 - Inspect the refueling zone for residual contamination and secure all spill response equipment.
 - Complete a brief operational log of the refueling procedure for record-keeping.

NT-NU Spill Report Form

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS



Canada



Inuvialuit Land Administration

NT-NU 24-HOUR SPILL REPORT LINE

Tel: (867) 920-8130 • Fax: (867) 873-6924 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date:	MM	DD	YY	Report Time:	<input type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update # _____ to the Original Spill Report	Report Number:
	Occurrence Date:	MM	DD	YY	Occurrence Time:		
C	Land Use Permit Number (if applicable):				Water Licence Number (if applicable):		
D	Geographic Place Name or Distance and Direction from the Named Location:					Region: <input type="checkbox"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> Adjacent Jurisdiction or Ocean	
E	Latitude: _____ Degrees _____ Minutes _____ Seconds				Longitude: _____ Degrees _____ Minutes _____ Seconds		
F	Responsible Party or Vessel Name:				Responsible Party Address or Office Location:		
G	Any Contractor Involved:				Contractor Address or Office Location:		
H	Product Spilled: <input type="checkbox"/> Potential Spill		Quantity in Litres, Kilograms or Cubic Metres:		U.N. Number:		
I	Spill Source:		Spill Cause:		Area of Contamination in Square Metres:		
J	Factors Affecting Spill or Recovery:		Describe Any Assistance Required:		Hazards to Persons, Property or Environment:		
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials:						
L	Reported to Spill Line by:		Position:	Employer:	Location Calling From:	Telephone:	
M	Any Alternate Contact:		Position:	Employer:	Alternate Contact Location:	Alternate Telephone:	

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:
Lead Agency: <input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other: _____				Significance: <input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Unknown	File Status: <input type="checkbox"/> Open <input type="checkbox"/> Closed
Agency:		Contact Name:	Contact Time:	Remarks:	
Lead Agency:					
First Support Agency:					
Second Support Agency:					
Third Support Agency:					