



# Spill Contingency Plan for NWT Highway 3&4 Operations and Maintenance Land Use Permit

Government of the Northwest Territories – Department of Infrastructure



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## **Introduction**

The Government of the Northwest Territories, Department of Infrastructure (INF) is applying for a renewal land use permit for the operations and maintenance of NWT Highway 3&4, currently issued under MV2017X0008.

This Spill Contingency Plan (SCP) has been developed by INF for use by project management and contractor staff. This spill contingency plan will be implemented for all activities undertaken for duration of the land use activity and will be revised as required. The purpose of the SCP is to provide a guide to all on-site personnel in the event of an accidental release of fuel or other waste during ongoing maintenance. All persons involved with on-site activities should read and be familiar with the SCP. To be effective, it is important that all personnel are acquainted with their responsibilities and the steps to take in the event of a spill. Personnel should not read the SCP for the first time during an emergency.

This SCP has been developed for land reserve and regulatory approvals in accordance with the Guidelines for Spill Contingency Planning prepared by Indian and Northern Affairs Canada (INAC) (2007). Contractors are required to submit a SCP which will meet or exceed the features of this SCP and can be provided to the appropriate regulatory authorities once complete.

## **Site Description**

The operation and maintenance of the highway will consist of the following:

- The continuous and ongoing operation and maintenance of the existing NWT Public Highway system within the permit corridor along the Yellowknife Highway (NWT No.3) between kilometer 124 and kilometer 338.8 (end of highway #4) and along the Ingraham Trail (NWT No.4) between kilometer 0 (intersection with the Yellowknife Highway at km 337.3) and km 69.2 (Tibbitt Lake – the end of the highway) and includes the Community Access Roads for Behchokè and Dettah and other minor roads along the Yellowknife Highway – Ingraham Trail Corridor and as listed under the Public highways Act and Commissions Land for the Government of the NWT and includes all highways, roadways and other transportation infrastructure (i.e. roadway embankment maintenance, rehabilitation and reconstruction; bridge structures maintenance and replacement; culvert maintenance and replacement; establishment and maintenance of drainage channels, winter roads construction and maintenance; etc.). All operations and maintenance activities will be undertaken following the standards for highway maintenance as outlined in the Highway Maintenance Standards Manual, normal

construction practices and in accordance with the various regulatory agencies, as applicable:

- The Permit area will be two (2) kilometer in width, one (1) kilometer on each side of the existing public highway/roadway centerline through the entire length of the permit corridor including access and minor roads as listed in the Public Highways Act;

- To access existing or future quarry areas within and outside the two (2) kilometer corridor;

- To develop new or further develop existing borrow areas to obtain granular borrow materials, common materials, blast rock (including use of explosives). rip-rap, clay, sand and gravel, from areas outside the existing 60 metre wide Public Highway corridors through applications to GNWT-ECC for Quarrying Permits;

- To carry out geotechnical investigations in the search for gravels and rock and for gathering preliminary engineering information for the design of foundations for roadways, bridges and other structures {as required};

- To place and maintain granular stockpiles at existing or approved quarry sites for the purpose of ongoing operations and maintenance or the public highway system within the permit corridor;

- To place temporary construction/work camps at existing quarries or previously developed sites within the permit corridor for the purpose of carrying out operations and maintenance of the public highway system and other roadways within the permit corridor;

- To temporarily store construction, operations and maintenance equipment at the various existing quarries or other previously developed sites within the permit corridor while carrying out these activities in the area;

- To access water sources for the ongoing operations and maintenance of the public highway system within the permit corridor:

- To have right of access to one kilometre ( 1 000 metres) on each side (left and right) to the public highway/roadway center line for the purpose of carrying out granular and geotechnical investigations, quarry pit development. drainage channel construction, stockpiling granular and other construction materials and placement of temporary construction/work camps;

-To construct and maintain sand and sand/salt storage facilities at strategic locations along the designated highway corridor; and,

-To construct, operate and maintain pullouts/rest areas at strategic locations along the designated highway corridor.

### **Potential Contaminants**

Over the course of the Project, several contaminants may be used by equipment and crews working within or near the project footprint. These potential contaminants are listed below and may be involved in a spill:

- Gasoline
- Diesel
- Hydraulic oil
- Motor oil
- Lubricating oils and grease
- Antifreeze and other coolants
- Contaminated soil, snow, ice and water

Spills may result from any of the following potential occurrences:

- Valve or line failure in systems, vehicles or heavy equipment
- Spill of lubricants during routine maintenance of equipment
- Vandalism

### **Response Organization**

Whenever a spill is identified, the Contractor and the INF representative will be contacted as soon as possible. The Contractor is responsible for initiating the SCP. The Contractor will be identified through an approved procurement process that is currently underway.

#### INF Contact Information

Terry Brookes

Manager, Transportation

867-767-9084 ext 31065

#### Contractor Contact Information

TBD

## **Initial Response under Any Spill Circumstances**

The following actions should be taken by the first person(s) who identifies a spill:

1. Be alert and considerate of your safety and of those around you. If possible, identify the spilled contaminant. Notify your supervisor immediately.
2. Assess the hazard to persons in the area of the spill, including yourself.
3. Assess whether the spill can be readily stopped or brought under control.
4. If safe to do so, and if possible, stop the spillage of contaminant and/or provide containment.
5. Gather information about the status of the situation and the direction of flow.
6. Consult the workplace Spill Contingency Plan and implement measures provided.
7. Report the spill immediately to the 24-Hour Emergency Spill Report Line (867)920-8130.

NOTE: If the spill was the result of contractor or user actions, they should enact their own spill response procedures according to their Spill Contingency Plan. See Spill Prevention section for more information on spill response procedures.

## **Reporting Procedure**

All spills or potential spills of contaminants must be reported to the 24-hour Spill Report Line to ensure that an investigation may be undertaken by the appropriate authority. Reporting of any spills associated with the project will be completed by the Contractor or the INF site representative.

To report a spill:

1. Fill out the Northwest Territories Spill Report Form (found in Attachment A of this SCP) as completely as possible before calling in the spill report.
2. Contact the Government of the Northwest Territories 24-hour Emergency Spill Report Line

**24-HOUR EMERGENCY SPILL REPORT LINE 867-920-8130**

3. Where fax is available, fax the completed Northwest Territories Spill Report Form to 867-873-6924. Alternatively, if email is available, email the completed Northwest Territories Spill Report Form to [spills@gov.nt.ca](mailto:spills@gov.nt.ca)

Any person reporting a spill is required to give as much information as possible, however reporting of a spill should not be delayed if all of the necessary information is not known. Additional information can be provided later.

From the *Consolidation of Spill Contingency Planning and Reporting Regulations* (1998), as much of the following information should be reported during the initial spill report as possible:

- Date and time of spill
- Location of spill
- Direction spill is moving
- Name and phone number of a contact person close to the location of the spill
- Type of contaminant spilled and quantity
- Cause of spill
- Whether spill is continuing or has stopped
- Description of existing contaminant
- Action taken to contain, recover, clean up, and dispose of spilled contaminant
- Name, address and phone number of person reporting the spill
- Name of owner or person in charge, management or control of contaminants at the time of the spill

## **Action Plans**

### ***Spill Prevention***

The most likely spill possibilities during the project would be leakage or line failure from heavy equipment or other vehicles, or vehicular accident. No contaminants will be stored onsite. Fuel transfer is not expected on site, but if required will be transferred via a fuel truck. Drip trays will be used during fuel transfer. Where drips or spills occur they will be cleaned up immediately.

The risk of spills will be further reduced through regular inspection and maintenance of all heavy equipment and vehicles associated with the permitted activities. These activities may include, but not be limited to:

- Inspection of fuel and oil lines on all equipment;
- Completing on-site fuel transfer over spill pads/trays
- Monitoring of tank volume during fuel transfer;
- Cleaning up drips and minor spills immediately; and,
- Ensuring the quick repair of any identified deficiencies on heavy equipment or other vehicles.

## **Spill Response**

The following steps outline the general spill response procedures for initial actions to be taken to contain and clean up a contaminant spill, as well as disposing of contaminated materials. Two procedures have been developed for handling contaminant spills, depending on where the spill has occurred (i.e., on snow/ice, or on land).

### **Spills on Land**

1. Once a spill is identified, all sources of ignition should be turned off (e.g., no smoking, shut off engines).
2. The spilled material (e.g., gasoline, diesel, antifreeze, etc.) should be identified, if possible.
3. The affected area should be secured, ensuring the area is safe for entry and does not represent a threat to human health and safety of the spill responders. Public access of the area should be restricted.
4. If possible, identify where the spill is coming from (the source). Determine if the spill is still occurring (i.e., still leaking) or if the spillage has stopped. If the spill has not stopped, determine if it is safe to stop or control the spill (e.g., plug hole, close valve, upright container), or contain the spill (e.g., place a container or tarp with built up edges under the spill source to contain the spill).
5. If the spill is too large to be controlled with the spill materials at hand, contact the Contractor or the INF site representative and report the spill immediately and request assistance (see section above for contact information). Use materials on hand to attempt to control the spill.
6. If the spill is small enough to be controlled with the spill response materials at hand, prevent spilled contaminants from spreading or entering waterways by using sorbent (oil-absorbing) materials or a soil dyke down slope from the spill. This is especially the case with liquid contaminants (e.g. gasoline, diesel).
7. Once the spill has been controlled and further spreading prevented, contact the Contractor or the INF site representative and report the spill (see section



above for contact information). The Contractor or the INF site representative is responsible to report the spill to the 24-Hour Emergency Spill Report Line.

8. If possible with spill response materials at hand, clean up the remaining spilled contaminant and store contaminated materials in a secure container for proper disposal. Do not flush the affected area with water.

9. If possible, remove any contained liquid by pumping into secure drums.

### **Spills on Snow and Ice**

1. Once a spill is identified, all sources of ignition should be turned off (e.g. no smoking, shut off engines).

2. The spilled material (e.g. gasoline, diesel, antifreeze, etc.) should be identified, if possible.

3. The affected area should be secured, ensuring the area is safe for entry and does not represent a threat to human health and safety of the spill responders. Public access of the area should be restricted.

4. If possible, identify where the spill is coming from (the source). Determine if the spill is still occurring (i.e. still leaking) or if the spillage has stopped. If the spill has not stopped, determine if it is safe to stop or control the spill (e.g. plug hole, close valve, upright container).

5. If the spill is too large to be controlled with the spill materials at hand, contact the Contractor or the GNWT site representative and report the spill immediately and request assistance (see above section for contact information). Use materials on hand to attempt to control the spill.

6. If the spill is small enough to be controlled with the spill response materials at hand, prevent spilled contaminants from spreading or entering waterways by using sorbent materials or a snow/soil dyke down slope from the spill. This is especially the case with liquid contaminants (e.g. gasoline, diesel).

7. Once the spill has been controlled and further spreading prevented, contact the Contractor or the GNWT site representative and report the spill (see Section 3 for contact information). The contractor or the GNWT

representative is responsible to report the spill to the 24-Hour Emergency Spill Report Line.

8. If possible with the spill response materials at hand, clean up the remaining spilled contaminant and store contaminated materials in a secure container for disposal. Affected snow should be stored in drums for proper disposal.

### **Spills in Water**

1. Once a spill is identified, all sources of ignition should be turned off (e.g. no smoking, shut off engines).
2. The spilled material (e.g. gasoline, diesel, antifreeze, etc.) should be identified, if possible.
3. The affected area should be secured, ensuring the area is safe for entry and does not represent a threat to human health and safety of the spill responders. Public access of the area should be restricted.
4. If possible, identify where the spill is coming from (the source). Determine if the spill is still occurring (i.e. still leaking) or if the spillage has stopped. If the spill has not stopped, determine if it is safe to stop or control the spill (e.g. plug hole, close valve, upright container).
5. If the spill is too large to be controlled with the spill materials at hand, contact the Contractor or the GNWT site representative and report the spill immediately and request assistance (see above section for contact information). Use materials on hand to attempt to control the spill.
6. If the spill is small enough to be controlled with the spill response materials at hand, use sorbent booms to contain the spill for recovery. Place sorbent sheets on the water within the boomed area to help contain the contaminant. For narrow waterways such as streams, place one or more sorbent booms across the waterway, downstream of the spill location, and anchor the booms on each bank.
7. Once the spill has been controlled and further spreading prevented, contact the Contractor or the GNWT site representative and report the spill (see above section for contact information). The contractor or the GNWT

representative is responsible to report the spill to the 24-Hour Emergency Spill Report Line.

8. If possible with the spill response materials at hand, clean up the remaining spill contaminant within the boomed area. Store contaminated materials in a secure container for proper disposal.

### **Communication Plan**

In the unlikely event of a large spill that might affect public safety, The City of Yellowknife’s Department of Emergency Services will be notified. In these circumstances the INF contacts listed above will have primary responsibility for ensuring communication following the Department’s policy.

Department of Emergency Services: 911

Yellowknife Fire Department 867-873-2222

Yellowknife RCMP 867-873-1111

### **Resource Inventory**

#### ***On Site Resources (Personnel & Equipment)***

Personnel: All personnel hired to work on the Project will be familiar with on-site in spill prevention, response and clean-up measures (see sections above)

Equipment: The following is a list of equipment that is typically used for ongoing highway maintenance activities. Equipment and attachments listed may vary slightly as a result of make and model, and no specific numbers for equipment are listed as numbers are depended on the level of service being provided.

Equipment	Size	Purpose
Tracked Dozers	D3 through D9	Clearing right-of-way, drainage channels and granular borrow site, clearing granular investigation cutlines, pushing roadway construction material on the roadway and in borrow area, pushing borrow materials and leveling stockpiles, etc.

Hydraulic Excavators (Wheeled and Tracked)	E70 through 245B	Excavating drainage channels, excavating at culvert removal and installation sites, excavating at bridge sites, excavating borrow sites and loading haul vehicles, making repairs to roadway embankment, clearing right-of-way, granular investigations (test pitting), etc.
Loaders (Wheeled and Tracked)	Various	For loading haul trucks, moving granular materials at work areas, stockpiling granular materials, feeding crusher and asphalt plants, etc.
Motor Graders	Various	For roadway maintenance and road repairs, grading granular surfacing, right-of-way maintenance, snow ploughing, borrow source maintenance, etc.
Compaction Equipment	Various	To compact roadway surface and surfacing, compact roadway embankment, compact around culvert installations, etc.
Asphaltic Pavers	Various	To place asphaltic surfacing.
Rotary Drills	Various	To carry out granular and geotechnical investigations, prepare for piling installations at bridge or ferry sites, to prepare for blasting at quarry sites, etc.
Gravel Crushing Plants (Cone and Jaw)	Various	To produce specified granular materials
Single Axle, Tandem Axle and Tridem Axle Haul Trucks	Various	For snow ploughing and road maintenance, watering on the road, hauling granular and rock materials to work site, stockpiling granular materials, gravel surfacing, sanding on the road, hauling construction materials, hauling water for work camps, sewage and waste removal.
Tractor Trailers	Various	To move equipment to, from and within work site and borrow areas (low/high boys), etc.
Rock Trucks	Various	To move rock between quarry areas, to haul construction

		materials within work area, etc.
Tractor Mowing Machines	Various	To clear right-of-ways.
Fuel Tankers	Various – to 40,000L	To resupply fuel storage tank, to refuel equipment, etc.
Pile Drivers	Various	For installing piles at bridge sites and ferry facilities, etc.
Draglines	Various	For recovering granular materials dredging at bridge sites and ferry crossings, etc.
Cranes	Various	For hoisting and placing bridge components, removing and installing culverts, setting up asphalt and crushing plants, loading and unloading equipment, loading, unloading and placing temporary camp facilities, etc.
Service Vehicles	Various – Pickup trucks, utility service trucks, etc.	To support and maintain all equipment required for the ongoing operation and maintenance of the public highway system, roadways, access roads and airports/airstrips, etc.
Temporary Construction/Work Camp Facilities	2 to 40 man camps	To support delivery of the ongoing operation and maintenance of the public highway system, roadways, access roads and airports/airstrips, short term construction activities, temporary ice/winter road construction and maintenance camps along potential winter road portions of the permit area, etc.
Tree Harvesters/Mulchers	Various	For right-of-way clearing, borrow site clearing, etc.
Generators	Various	For temporary camps, lighting units, crusher plants, asphalt plants, to power small tools and equipment, etc.
Various small equipment – rock pickers, soil cultivators, roadway sweepers, post hole drills, post drivers, water pumps, rig mats,	Various	To support the delivery of the ongoing operation and maintenance of the public highway system, access roads,

patching units, tar pots, tampers, compressors, jack hammers, etc.		airports/airstrips, temporary construction camps, temporary ice/winter road construction and maintenance camps, etc.
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## Spill Kits

The following outlines the recommended minimum requirements for contents of spill kits to be used during the project; the Contractor is responsible to supply the spill kits. Each spill kit will be regularly inspected to ensure it always contains the following, at a minimum (in part from INAC 2007):

- 1 – 205 L open top steel drum with lid, bolting ring and gasket (spill kit container)
- 10 disposable large 5 mil polyethylene bags (dimensions 65 cm x 100 cm) with ties
- 4 – 12.5 cm x 3 m (5 in. X 10 ft.) sorbent booms
- 10 kg bag of sorbent particulate
- 100 sheets (1 bail) of 50 cm x 50 cm sorbent sheets
- 2 large (5 m x 5 m) plastic tarps
- 1 roll duct tape
- 1 utility knife
- 1 field notebook and pencil
- 1 rake
- 1 pick-axe
- 3 spark-proof shovels
- 4 Tyvex® splash suits
- 4 pairs chemical resistant gloves
- 4 pairs of splash protective goggles
- Instruction binder, including Spill Contingency Plan.

The entire spill kit contents, with the exception of the spark-proof shovels, can be stored within the 205 L steel drum. The drum will be sealed securely to protect the spill kit contents, though should always be accessible without the use of tools (i.e., finger tight bolt ring). The drum's bolt ring should be inspected regularly during inspections to ensure it turns freely and is lubricated.

Extra spill response materials should also be available for use, in addition to the spill kit contents. All spill kits will be located in an open and easily identifiable area for efficient use in spill circumstances.

### **Training and Exercises**

The Contractor will be responsible for providing a qualified supervisor and training site workers in spill response. All individuals hired to work on the project should be familiar with spill response, basic first aid and WHMIS (Workplace Hazardous Materials and Information System) training before working on site.

### **References**

Indian and Northern Affairs Canada (INAC). 2007. Guidelines for Spill Contingency Planning. Water Resources Division, INAC, Yellowknife, NT Available online: <http://www.aadncaandc.gc.ca/eng/1100100024236/1100100024253> (18 September 2014).

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND  
OTHER HAZARDOUS MATERIALS



**NT-NU 24-HOUR SPILL REPORT LINE**

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

**REPORT LINE USE ONLY**

A	Report Date: MM   DD   YY	Report Time:	<input type="checkbox"/> Original Spill Report		Report Number:
	Occurrence Date: MM   DD   YY	Occurrence Time:	<b>OR</b> <input type="checkbox"/> Update # _____ to the Original Spill Report		
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
<b>Agency:</b>	<b>Contact Name:</b>	<b>Contact Time:</b>	<b>Remarks:</b>		
Lead Agency:					
First Support Agency:					
Second Support Agency:					
Third Support Agency:					