Spill Contingency Plan for Construction of Swan Lake River Bridge Project

Gjoa Haven, NU

Prepared by:
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1 Introduction

This Spill Contingency Plan (SCP) has been developed for use by the Government of Nunavut Department of Community and Government Services (GN-CGS) and the Hamlet of Gjoa Haven (the Hamlet) during construction of the Swan Lake River Bridge. The purpose of this SCP is to provide a guide to operators and other Hamlet personnel in the event of an accidental release of fuel or other waste during construction of the Bridge. The SCP can also be used during operations of the Access Bridge. The SCP is planned to be protective of the local environment and public and personnel health and safety. All persons involved with construction and operation activities along the Bridge route should read and be familiar with this SCP. To be effective, it is important that all personnel are familiar with their responsibilities and steps to take in the event of a spill. Personnel should not be reading the SCP for the first time during an emergency.

CAP Enterprises Ltd will be providing heavy equipment support to Jivko Engineering during the Swan Lake River Bridge construction. The construction portion of the project is scheduled to begin on July 1st, 2016 and should conclude approximately 7 to 8 days later.

Contact Information for Project Overseers

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2 Site Description

A map is attached showing the proposed location of bridge placement, relative to the houses and population of the Hamlet of Gjoa Haven. The bridge is located within the Gjoa Haven Municipal boundary.

The Swan Lake River Bridge site is located approximately 9 kilometers north west of Gjoa Haven. The project, involving Jivko Engineering, CAP Enterprises Ltd and the Hamlet of Gjoa Haven, is estimated to take between 7 to 8 days.

It is estimated that traffic in the area due to bridge construction will increase by %5. It is projected that during the project the river will be crossed twice daily or 14-16 times over the period. When not in use vehicles and equipment will be parked 100 meters away from the river, in a location where there is no downward slope towards the river.

2.1 Potential Contaminants

Over the course of construction, several contaminants may be used by equipment and crews working and travelling the Bridge route. These contaminants are listed below and may be involved in a spill:

- Gasoline
- Lubricating oils and grease
- Diesel
- Motor oil
- Antifreeze and other coolants
- Hydraulic oil

Contaminant spills may occur on land or in the water along the entire Project route. Spills may result from any of the following occurrences:

- Leaks or ruptures of fuel storage tanks
- Vehicular accidents
- Valve or line failure in systems, vehicles or heavy equipment
- Spill during transfer of contaminant
- Heat expansion due to overfilling or improper storage
- Vandalism
- Improper storage of contaminant

3 Initial Action

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.
2. Assess the hazard to persons in the area of the spill.
3. If possible, without further assistance, control any danger to human life or the environment.
4. Assess whether the spill can be readily stopped or brought under control.
5. If safe to do so, and if possible, try to stop the spillage of contaminant.
6. Gather information about the status of the situation.
7. Report the spill immediately to the SAO and/or Hamlet Foreman who will report the spill to the 24-Hour Emergency Spill Report Line/
8. Resume any effective action to contain, clean up or stop the flow of spilled contaminant. See Section 6.1 for more information on spill response procedures.

4 Reporting Procedure

All spills or potential spills of contaminants must be reported to the 24-hour Northwest Territories – Nunavut Emergency Spill Report Line to ensure that an investigation may be undertaken by the appropriate government authority. Reporting of any spills associated with construction of the Access Road or development of borrow sources should be completed by the hired contractor or SAO.

To report a spill:
1. Fill out the Nunavut Spill Report Form (found in Appendix B of this SCP) as completely as possible before calling in the spill report.

2. Contact the Government of Nunavut 24-hour Emergency Spill Report Line
24-HOUR EMERGENCY SPILL REPORT LINE 867-920-8130

3. Where fax is available, fax the completed Nunavut Spill Report Form to **867-873-6924**. Alternatively, if email is available, email the completed Nunavut Spill Report Form to 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:

- Date and time 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
- Location of spill
- 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

In addition to reporting to the 24-hour Emergency Spill Report Line, an Indian and Northern Affairs (INAC) Water Resources Inspector must be notified of a spill immediately after occurrence. The INAC Water Resources Inspector should be contacted at (867) 975-4298. A copy of the completed Nunavut Spill Report Form should be forwarded to them.

5 ACTION PLANS

The most likely spill possibilities during construction and operation of the Access Road and Borrow Sources would be leakage or line failure from heavy equipment or other vehicles, spilling during fuel transfer, or vehicular accident. The likelihood of a major spill is negligible as no contaminants will be stored at construction sites along the bridge building route. All contaminants will be stored at a designated storage facility (e.g., CAP Garage). Further, a spill response kit will be kept at all construction sites.

The risk of spills will be further reduced through regular inspection and maintenance of all heavy equipment and vehicles associated with construction and operation activities along the Access Road, as well as routine activities. These activities may include, but not be limited to:

- routine checks of fuel transfer hoses and equipment;

- inspection of fuel and oil lines on all equipment;
- completing on-site fuel transfer over spill pads and a minimum of 100 m from the high water mark of any waterbody;
- monitoring of tank volume during fuel transfer;
- cleaning up drips and minor spills immediately; and,
- ensuring quick repair of any identified deficiencies on heavy equipment or other vehicles.

5.1 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. Three procedures have been developed for handling contaminant spills, depending on where the spill has occurred (i.e., land, water or snow/ice).

5.1.1 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 Spill Contingency Plan for Construction and Operation of 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 SAO or Hamlet Foreman and report the spill immediately (see Section 3 for contact information).
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). If some contaminant has entered a waterway, follow procedures in the next section (Spills in Water) to contain and clean-up the contaminant in the water.

7. Once the spill has been controlled and further spreading prevented, contact the SAO or Hamlet Foreman and report the spill (see Section 3 for contact information). The SAO or Hamlet Foreman 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.

5.1.2 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 SAO or Hamlet Foreman and report the spill immediately (see Section 3 for contact information).
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 to1q each bank.

6 Resource Inventory

On-site resources

On location at the Swan Lake Bridge construction there will be personnel and materials to minimize the effects of a spill. Personnel will be familiar with procedures and items at their disposal in the event of an accident. All materials will be new or carefully maintained and will include:

- Spill kits:
  - 1 field notebook and pencil
  - 1 rake
  - 1 pick-axe
  - 3 spark-proof shovels
  - 4 Tyvex splash suits

- Pads
- Sorbent Socks
- Nitrile Gloves
- Eye protection
- Disposal bags
- Heavy equipment Loader

Off- Site Resources

The site is at the edge of the municipal boundary approximately 8-9 kilometers from nearest residences. The Bridge Construction site is a short, 5 minute drive from the CAP garage and 7-8 minutes from the office. In the event of an emergency, Director Charlie Cahill can be contacted 24 hours at 867 360-6272 and will dispatch the appropriate personnel to assist in clean up.

Nunavut Water Board Nunavut Waters and Surface Right Tribunal Act
Phone: (867) 360-6338
Fax: (867) 360-6369

Nunavut Impact Review Board Nunavut Land Claims Agreement Act
Phone: (867) 983-2593

Government of Nunavut
Department of Environment Nunavut Environmental Protection
Act Phone: (867) 975-7700
Fax: (867) 975-7740

Environment Canada Canadian Environmental Protection Act, 1999
Phone: (867) 975-4464
Fax: (867) 975-4645

Fisheries and Oceans Canada Fisheries Act
Phone: (867) 979-8000 Fax: (867) 979-8039

Transport Canada
(Coast Guard) Transportation of Dangerous Goods Act
Phone: (867) 979-5269

Fax: (867) 979-4260

8 Training & Exercises

8.1 Outline

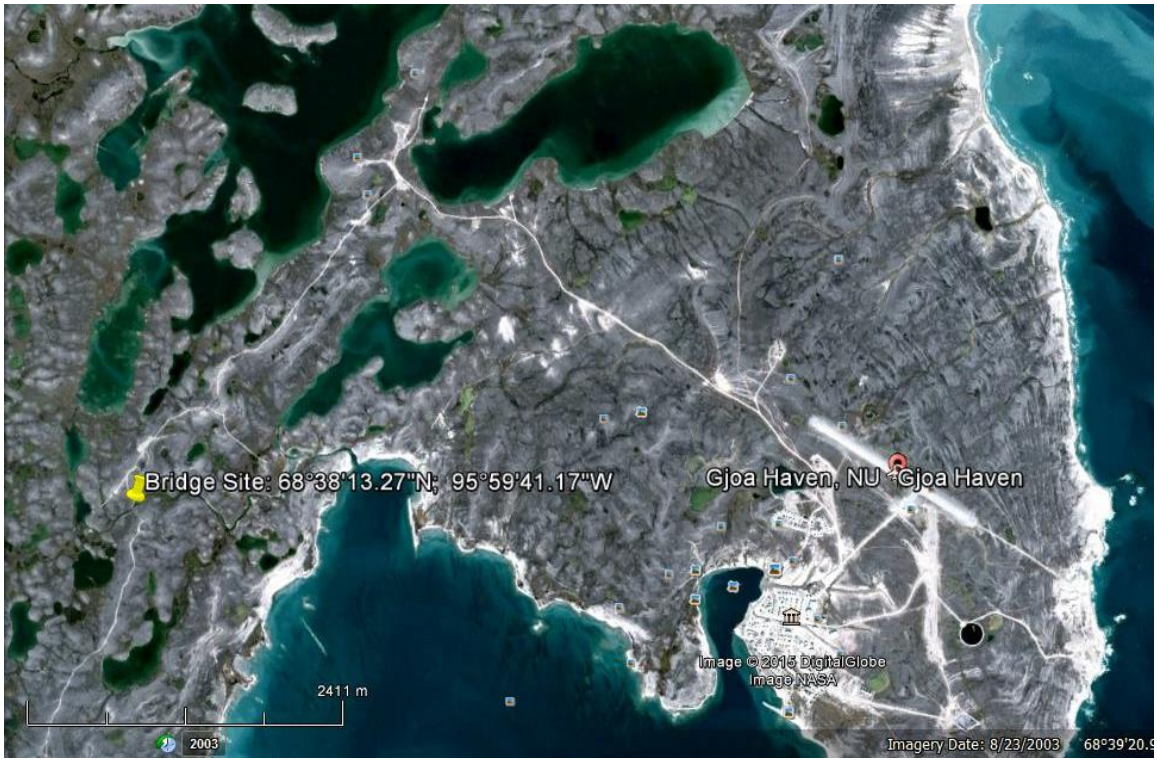
All individuals hired to work on Access Road construction and/or borrow source development should have their basic first aid and WHMIS (Workplace Hazardous Materials and Information System) training before working on site. A training session on spill prevention and response should also be held for all individuals prior to the start of bridge construction.

The training session should review this SCP and include information on:

Individuals roles and responsibilities in regards to spill prevention, detection, response and clean-up;

- Location(s) of hard copies of the SCP, maps and spill kits;
- Equipment available for spill response;
- Content of spill kits;
- Initial actions and spill reporting procedures; and,
- Spill response and clean-up actions.

Training exercises, including mock spills and proper use of spill kits, should also be held prior to the start construction to provide hands-on training for individuals on spill response procedures and equipment.



Bridge Location Map

Bridge Location Detail