

Appendix F

Spill Contingency Plan



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CONSTRUCTION

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Spill Contingency Plan

Fuel Facility Upgrade Project Chesterfield Inlet, NU

GPS Location: Latitude: 62°49N Longitude: 92°05W

Prepared by:

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Prepared for:

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1.0 Introduction

Inukshuk Construction has been contracted by the Government of Nunavut to upgrade the fuel storage facility in Chesterfield Inlet, NU. Our firm will be handling various hazardous materials and there is the potential for a spill.

Inukshuk Construction and its sub contractors are committed to ensuring that hazardous materials are not accidentally discharged to the environment. However, in the event a spill does occur, we have prepared the following spill contingency plan to minimize the environmental impact.

An emergency, such as a spill is a very stressful situation. The following plan will ensure that all personnel are aware of the procedures that must be following in the event of a spill. This plan will ensure that life is protected, injuries minimized, resources are used effectively, environmental impact is kept to a minimum and essential reporting is conducted.

1.1 Applicable Regulations

The GN requires that any person or company storing over 20,000 litres of contaminants in an aboveground storage facility must have a spill contingency plan in place.

1.2 Scope of Work

General

The Chesterfield Inlet Fuel Facility Expansion project involves the following work.

Site preparation for construction of facility including dikes, placement of geotextile fabric,

- Site preparation for construction of facility including dikes, placement of geotextile fabric, impermeable liner and tank pads.
- Remove existing liner, piping, tanks, dispensers, and stairs, which are not required in the completed works. Surplus items to remain the property of the GN.
- Upgrade resupply pipelines, construct new pipelines, resupply hose connections and spill basin at the new resupply location.
- Construct new stiles for access into and out of the new secondary containment area.
- Provide new sumps in the new secondary containment area and provide hand operated pumps for the removal of accumulated water within the containment areas.
- Empty, clean, gas-free, relocate and upgrade one existing 1379 m³ LSDL Vertical Tank. Relocate within new cell.
- Construct one new 1933 m³ LSDL Vertical Tank. Provide new piping connection as required.
- Construct one new 582 m³ Gasoline Vertical Tank. Provide new piping connection as required.
- Empty, clean, gas-free, and surplus two existing Horizontal Gasoline tanks. Convert to slop tanks.
- Provide new piping to connect tanks with new dispensing systems.
- Provide and install one (1) new Operator's Shelter Retail Store Building.
- Connect electrical services to new Operator's Shelter Retail Store Building and associated facility distribution equipment.
- Fabrication, delivery and hook-up of a new LSDL and gasoline dispenser building.
- Provide required electrical services including new tank and area lighting.

- Strapping and calibration of all tanks subsequent to construction and inspections.
- Construction and grading of drainage control ditches as outlined in the drawings.
- Provide new fence as illustrated in the drawings.
- Preparation and painting of all tanks, piping and miscellaneous metal surfaces.

1.3 Hazardous Materials Expected to Be Encountered

During the implementation of this project, we will encounter the following hazardous materials will be encountered.

Hazardous Material	Quantities
LSDL	2000cum (Max tank capacity)
Gasoline	600cum (Max Tank Capacity)
Tank Sludge	5000L (Estimate)
Contaminated Soil	Unknown
Lead-Based Paint	Unknown
Hydrotest Water	2000cum

1.4 Owner Contact Information

The owner of the facility is the Government of Nunavut, Petroleum Products Division. The contact personnel are as follows:

Project Officer
 Wayne Thistle, CET
 Acting Regional Projects Manager
 Dept. of Community & Government Services
 Kivalliq Region, Government of Nunavut
 PO Bag 002, Rankin Inlet, NU, X0C 0G0
 Phone # (867) 645-8178
 Fax # (867) 645-8196
 Cell # (867) 645-6806
 Email: WThistle@GOV.NU.CA]

Petroleum Products Division
 Mr. Todd MacKay
 Government of Nunavut
 Public Works and Services
 P.O. Box 002
 Rankin Inlet, NU
 X0C 1X0

Tel: (867) 645-5172
 Fax: (867) 645-6806
 Email: TMcKay@GOV.NU.CA

1.5 Inukshuk Construction Limited and Mosher Engineering Limited Contact Personnel

In the event of a spill, the Inukshuk Construction Site Supervisor will be responsible for activating the spill contingency plan.

The 24 hour contact information for our personnel is as follows:

Tony King
 Superintendent
 Rankin Inlet, NU

Hotel #: (867) 645-2231
Fax #: (867) 645-2231
Cell #: (902) 478-4700

John Winters
Site Supervisor
Chesterfield Inlet, NU
Hotel #: (867) 898-9975
Cell #: (902) 483-0398

The crew is also equipped with radios.

David Mosher, Senior Project Manager
Office: (902) 429-0272
Home: (902) 429-3430
Cell: (902) 483-9677
Fax: (902) 429-7762
E-mail: dave@mosher.ca

1.6 Fuel Storage Facility Description

The existing fuel storage facility consists of storage tanks for gasoline and LSDL fuel located in two separate bermed dykes with impervious HDPE liner. The north dyke is containing one 1379 cum LSDL vertical tank and four 93cum LSDL horizontal tanks. The south dyke is containing four 93cum gasoline horizontal tanks. There are one fuel dispenser building for gasoline and LSDL and one operator's shelter located outside the dyke.

The two dykes will be combined to form one larger dyke in the new facility. The new dyke will have on relocated 1,379cum LSDL vertical tank, one new 1,933cum LSDL vertical tank, one new 582cum vertical tank and only two 93cum horizontal tanks will remained and act as a slop tanks. A new LDSL/Gasoline dispenser building and an operators shelter will be constructed south and moved into position outside the dyke to replace the existing fuel dispenser and operators shelter buildings.

During construction, a temporary fuel dispenser will be installed. It will consist of two 106cum horizontal tanks located inside a lined berm for spill containment.

This contract also includes remediation of fuel contaminated soil in the tank farm. A new contaminated landfarm will be constructed in 2012. Contaminated soil from the tankfarm will be excavated and transported to that new landfarm.

1.7 Potential Hazards & Risk Mitigation

We have considered the various types of spills that can occur during this project and listed them below. The type of spill will affect our response.

Fuel Spill during Decommissioning

While fuel lines and tanks are being decommissioned, there is the potential for a spill. To mitigate this risk, we will use only trained, experienced person for this work. We will also have on hand half drums for catching fuel, absorbent pads and speedy dry in case of a spill.

If a spill were to occur, we would immediately excavate the contaminated soil and place it in the new contaminated soil storage area.

Tank Sludge

There is the potential for tank sludge to spill on the ground while cleaning tanks.

If this were to occur, we would excavate the contaminated soil and place it in the new contaminated soil storage area.

Refueling of Equipment

There is the potential for a spill while we are refueling equipment. To mitigate this hazard we use a truck mounted fuel truck with Gasboy dispenser. We only use experienced personnel for this task and the fuel pump will automatically shut off if left unattended.

Paint Spill

There is the potential for a paint spill while the tanks are being painted. This risk is mitigated by the use of tarps for storing paint.

Lead Paint Removal

During the surface preparation process, we will encounter lead paint chips. This risk will be mitigated by the use of tarps to contain the debris. The personnel will also wear appropriate PPE to eliminate inhalation risks.

Detailed procedures for the lead abatement will be submitted prior to start of painting operation.

1.8 Spill Contingency Plan

Introduction

In the event of a spill, the site supervisor will immediately be notified by telephone. The site will be secured and steps will be taken to minimize spill impact.

Personnel

There will be two persons doing the hydrostatic testing and both will have two way radio. Also, there will be up to twelve workers in the tank farm doing other work. In the event of a spill all can become available to help contain and clean the spill under the instruction of the site supervisor.

Reporting

As soon as the site is secure, the site supervisor will notify the owners and the Inukshuk Construction project management staff. There will be working activity 24hrs per day during the construction period. There will always be someone with a two way radio who could call the site supervisor and arrange the manpower contain and proceed with cleanup.

Contact the 24-hr Spill Report Line: (867) 920-8130

Contact the INAC's Manager of Field Operations: (867) 975-4295

Cleanup

All the tanks are located in a containment dyke made of gravel and an HDPE Geomembrane. The capacity of the dyke is larger than the capacity of the largest tank. Therefore, if an entire tank would drain out, there would be no fuel spilled in an un-contained terrain. In the event of small leak, the fuel would be contained using absorbent speedy dry and absorbent pads and disposed in overpack drums. In the event of a large leak, the fuel would be filtered and pump back into the tank. We also have heavy equipment on site in the event contaminated soil has to be excavated.

Disposal

Any contaminated soil that gets excavated will be stored in the new contaminated soil land farm. Overpack drums containing sludge, and used speedy dry and absorbent pads would be stored in the tank farm containment burn and sent to Montreal QC by searift and disposed at an approved facility.

Location of MSDS

The MSDS will be stored in the site office

Content and location of spill kits

Spill kits contain shovels, broom, buckets, hydrophobic pads, speedy dry, for petroleum liquid leak. The spill kit will be located at the tank farm inside the dyke area. The kit will be easily accessible. A pump and hose in the event of a large hydrostatic test water spill will also be readily available in the tool container at the tank farm.

Map of suitable scale

See attached drawing C1 and C3

See attached

Fuel/hazardous Material Inventory

The following are the tanks capacities:

LSDL Tanks, qty 1, 1933cum

LSDL Tank, qty 1, 1379cum

Gasoline Tank, qty 1, 582cum

Slop Tank, qty 2, 93cum each

1.9 Training

The members of the crew performing fuel transfers, moving tanks, cleaning tanks, and hydrostatic testing of tanks consist of journeymen fitter/welder, experienced labour in tank cleaning, and certified equipment operator. Workers working inside tanks must have their confine space entry and fall arrest training up to date. The equipment operators must have a valid equipment operator license. The supervisor must be training and aware of all applicable health, safety, and environmental regulations.

2.0 Other Contacts

Environment Canada: 867-975-4644

GN – Department of Environment: 867-360-6338

Hamlet of Rankin Inlet: 867-645-2895

Kivalliq Inuit Association: 867-645-5725

Aboriginal Affairs and Northern Development Canada (AANDC): 1-800-567-9604

Department of Fisheries and Oceans Canada (DFO): 1-800-465-7735



**FUEL STORAGE
FACILITY
UPGRADES**

CHESIERFELDMET 150

LANDFARM SITE
LAYOUT

8	AF	1.75
	WD	10-3018
2010-1160		

C7



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NO.	DESCRIPTION	DATE
01	DESIGN	2010-11-18
02	REVISED DRAWING	2010-11-18
03	REVISED DRAWING	2010-11-18
04	REVISED DRAWING	2010-11-18



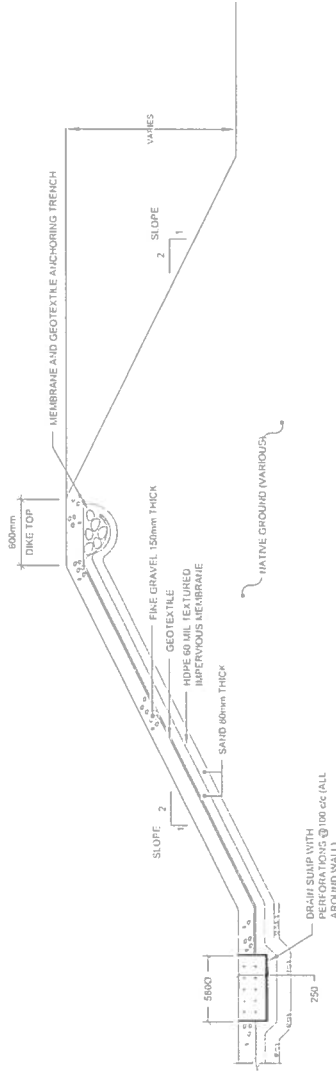
TAC
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FUEL STORAGE FACILITY UPGRADES

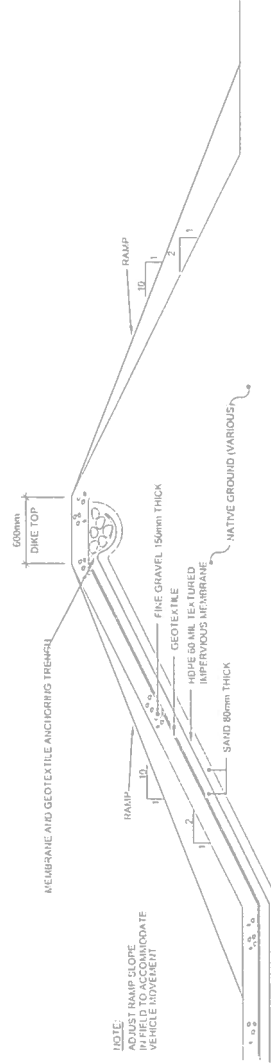
CHESTERFIELD RD
LANDFARM
CROSS SECTION

DATE	2010-11-18
BY	AT
CHECKED	AS
SCALE	1:50

C8



1 BERM CROSS SECTION (TYPICAL)
SCALE 1:50



2 BERM CROSS SECTION
SCALE 1:50



NUNAVUT SPILL REPORT

(Oil, Gas, Hazardous Chemicals or other Materials)

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24-Hour Report Line

24 - ᓄᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ

Phone/ᐃᓄᓂᓐᓂᓐ (867)920-8130

Fax/ᓄᓂᓂᓐᓂᓐ (867)873-6924

A Report Date and Time ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ		B Date and Time of Spill (if known) ᐃᓄᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ (ᐃᓄᓂᓐᓂᓐ)		C <input type="checkbox"/> Original Report ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ <input type="checkbox"/> Update No. _____ ᐃᓄᓂᓐᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ		Spill Number ᐃᓄᓂᓐ ᐃᓄᓂᓐ
D Location and Map Coordinates (if known) and Direction (if moving) ᓄᓂ ᐃᓄᓂ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ (ᐃᓄᓂᓐᓂᓐ) ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐᓂᓐ (ᐃᓄᓂᓐᓂᓐ)						
E Party Responsible for Spill (Full Name and Address) ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ (ᐃᓄᓂ ᐃᓄᓂᓐ ᐃᓄᓂᓐ)						
F Product(s) Spilled and Estimated Quantities (provide metric volumes/weights if possible) ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ (ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ)						
G Cause of Spill ᐃᓄᓂᓐᓂᓐ						
H Is Spill Terminated? ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ? <input type="checkbox"/> Yes/ᐃ <input type="checkbox"/> No/ᐃᐃ		I If Spill is Continuing, give Estimated Rate ᐃᓄᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ		J Is Further Spillage Possible? ᐃᓄᓂᓐᓂᓐᓂᓐᓂᓐ? <input type="checkbox"/> Yes/ᐃ <input type="checkbox"/> No/ᐃᐃ		K Extent of Contaminated Area (in square metres if possible) ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ (ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ)
L Factors Affecting Spill or Recovery (weather conditions, terrain, snow cover, etc.) ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ				M Containment (natural depression, dykes, etc.) ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ (ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ, ᐃᓄᓂᓐᓂᓐ)		
N Action, if any, taken or Proposed to Contain, Recover, Clean up or Dispose of Product(s) and Contaminated Materials ᐃᓄᓂᓐᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ (ᐃᓄᓂᓐᓂᓐ) ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ						
O Do You Require Assistance? <input type="checkbox"/> No <input type="checkbox"/> Yes, describe: ᐃᓄᓂᓐᓂᓐᓂᓐᓂᓐ? ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ			P Possible Hazards to Persons, Property or Environment e.g. fire, drinking water, fish or wildlife ᐃᓄᓂᓐᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ - ᐃᓄᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ			
Q Comments and/or Recommendations ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ						FOR SPILL LINE USE ONLY ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐᓂᓐ Lead Agency ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ Spill Significance ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐ Lead Agency Contact and Time ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ ᐃᓄᓂᓐ ᐃᓄᓂᓐᓂᓐᓂᓐ Is this file now closed? ᐃᓄᓂ ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐ?
Reported By ᐃᓄᓂᓐᓂᓐ		Position, Employer, Location ᐃᓄᓂᓐᓂᓐ ᐃᓄᓂᓐᓂᓐ, ᐃᓄᓂᓐᓂᓐᓂᓐ			Telephone ᐃᓄᓂᓐᓂᓐ	
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