APPENDIX 8

BATHURST/HIGH ARCTIC INTERM FUEL SPILL CONTINGENCY PLAN

BATHURST/HIGH ARCTIC REMEDIATION AND RISK MANAGEMENT PROJECT

-INTERIM SPILL CONTINGENCY PLAN-

Prepared by: Indigenous and Northern Affairs Canada

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Disclaimer

This Interim *Spill Contingency Plan* is being produced by Indigenous and Northern Affairs Canada (INAC) to satisfy the regulatory requirements for the Bathurst/High Arctic Remediation and Risk Management Project. It's the expectations of INAC that once a contractor is hired for this remediation work they will update this plan in whatever way they see fit and submit it to the necessary regulatory bodies as "Final".

1. INTRODUCTION/SITE OVERVIEW

Indigenous and Northern Affairs Canada (INAC) has responsibility, through the Contaminated Sites Program, to manage a number of contaminates sites that areno longer maintained by the original occupant. The Bathurst Island and High Arctic sites in Nunavut are one such example.

Contamination at both the High Arctic and Bathurst sites are largely a result of oil and gas exploration activities. Based on the findings of phase III Environmental Site Assessments, Remedial and Risk Management Plans were developed for both the High Arctic and Bathurst sites. For efficiency and cost effectiveness, these two projects have been combined into one.

In summary, the key activities that will take place as part of this project are as follows:

- temporary camp set-up and operation at Ile Vanier
- posting of warning signs at 6 High Artic and 9 Bathurst sites
- asbestos abatement
- off-site hazmat disposal
- small engineered cap of metals and PHC impacted soils
- collection and off-site disposal of PCB, metals and PHC soils
- incineration of organic liquids

Figure 1 below is a high level view of the various sites that are involved in this project.

FIGURE 1: HIGH ARCTIC/BATHURST SITES AND PROJECT EXTENT

2. FUEL AND HAZARDOUS MATERIAL SPILLS - GENERAL INFORMATION

This Spill Contingency Plan presents the prescribed course of action to be followed in the case of unanticipated *fuel or chemical spills* during the remediation and risk management activities taking place at the Bathurst/High Arctic sites in Nunavut. The plan will enable persons in a particular spill emergency situation to maximize the effectiveness of the environmental response and meet all regulatory requirements for reporting to the appropriate authorities. The plan also describes the locations where hydrocarbons (fuel) and spill response equipment will be stored at the site.

This current plan follows the standard procedure adopted by PWGSC / INAC on Crown lands to address unanticipated spills. The procedure has been customized and made specific to the Bathurst/HighArctic project and made available for regulatory approvals pre-contract award. After the selection of a contractor for the project, the successful contractor will develop a more detailed Spill Contingency Plan which will be included as a component of the Site Specific Health and Safety Plan (SSHSP). The SSHSP is always prepared prior to the commencement of site construction (remediation) activities and it will be posted on-site during the remediation activities. Also, a copy of the SSHSP

will be submitted to Nunavut Water Board (NWB) as soon as it is completed. The following information will be included in the SSHSP:

1. A description of pre-emergency planning;
2. Personnel roles, lines of authority and communication;
3. Emergency alerting and response procedures;
4. Evacuation routes and procedures, safe distances and places of refuge;
5. Emergency alerting and response procedures;
6. Directions/methods of getting to the nearest medical facility;
7. Emergency decontamination procedure;
8. Emergency medical treatment and first aid;
9. Emergency equipment and materials;
10. Emergency protective equipment;
11. Procedures for reporting incidents; and
12. Spill response and containment plans for all materials that could potentially be spilled.

3. TYPES AND QUANTITIES OF MATERIALS THAT WILL BE STORED ON-SITE

The types and approximate quantities of fuels that will be stored on-site are based off our experiences in the remediation of similar sites. The actual amount of fuels and their types will be verified by the hired contractor. We approximate these to be:

Gasoline: Approximately 5330 L stored in 205 L barrels;
Diesel: Approximately 5330 L stored in 205L barrels;
Aviation Fuel: 115 x 205L barrels
Propane: 23 x 45 kg tanks; and

Method of Storage & MSDS Sheets:

All liquid fuels will be stored in barrels on pallets within a containment area surrounded by a 0.5 m berm and lined with hydrocarbon resistant material. Refueling activities will occur directly from the barrels. The containment area will be located on flat, even ground at a distance of no less than 31 m away from the camp and the “High Water Mark” of any natural drainage area or water body.

Propane will be stored in 45 kg (100 lb) certified tanks near the kitchen trailer. The above quantities are estimates. Upon award of contract, the successful contractor will provide more specific information on the types and actual quantities of all fuels and chemicals on site.

Contractor will comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding employee training, use, handling, storage and disposal of hazardous materials.

Under the Crown's contracting procedure, the provision of Material Safety Data Sheets (MSDS), as required by WHMIS, is the responsibility of the successful contractor. Upon the award of contract for the Bathurst/High Arctic Remediation and Risk Management Project, the successful contractor will prepare the MSDS sheets for all fuels and chemicals they are bringing to site and include the MSDS sheets in the SSHSP which will be submitted to NWB before work can start on the site.

4. FUEL AND HAZARDOUS MATERIAL SPILLS CONTINGENCY PLAN

The objective of the fuel-related contingency plan is to protect the environment and human health by minimizing the impacts of spill events through clear and concise instructions to all personnel.

A variety of fuels (diesel, gasoline, and aviation fuel) will be used during this remediation and risk management project. Fuels will be stored in either barrels of 205 liters in containment berms. For either storage option, it is anticipated that any spill quantity would likely be small.

Transportation of fuels must comply with the *Transportation of Dangerous Goods Act and Regulations.*

The most common pollution incidents would probably involve spills of diesel or gasoline onto land resulting from: human error during transfer, rupture of barrels from deterioration or damage, seepage from fittings or valves, or equipment failure. Daily checking of equipment and preventative maintenance would identify damage to the fuel system and reduce the risk of spills or leaks.

In the event of a spill, protection of human health and safety is paramount. Contamination of personnel involved in clean up is a real possibility as is contamination

of the surrounding workplace and environment. The individual responding to a spill shall:

i. Ensure personnel are appropriately trained.

- All employees working on the FOX-D Remediation Project, including contractors and sub-contractors, will be trained in the safe operation of all machinery and tools, as well as in the handling of materials to help prevent and respond to hazardous material spills in a timely and effective manner. All employees on site will also be trained for initial spill response in the event of a spill. The recommended training for these purposes consists initially of the 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) course offered by various environmental firms and the 8-Hour HAZWOPER refresher course every two (2) years thereafter.

ii. Make use of materials and equipment available for adequate response to fuel spills, such as excavators for creating earthen dykes and hydrocarbon absorbent booms.
iii. Warn people in the immediate vicinity and evacuate the area if necessary.
iv. Wear protective clothing as required for handling spills.
v. Isolate and eliminate all ignition sources.
vi. Identify the spilled material if possible, and take all safety precautions before approaching it.
vii. Attempt to immediately stop the leakage and contain the spill, if safe to do so, by implementing the Spill Response Actions summarized below.
viii. Report to the Field Team Leader on the spill location, type of material, volume and extent, status of spill (direction of movement), and prevailing meteorological conditions.
ix. Follow all applicable federal/territorial regulations and guidelines or the disposal of spill materials.
x. Document all events and actions taken. Include information required by applicable regulations and guidelines.
xi. Notify appropriate government agencies using the contact list below. Report spills immediately on the 24-Hour Spill Report Line (867) 920-8130.

Spill Response Actions on Different Media

On Land:

- Do not flush into ditches or drainage systems.
- Block entry into waterways and contain with earth, snow or other barrier.
- Remove small spills with sorbent pads.
- On tundra use peat moss and leave in place to degrade, if practical.

On Snow & Ice:

- Block entry into waterways and contain with snow or other barrier.
- Remove minor spills with sorbent pads and/or snow.
- Use ice augers and pump to recover diesel under ice.
- Slots in ice can be cut over slow moving water to contain oil.
- Burn accumulated diesel from the surface using Tiger Torches if feasible and safe to do so.

On Muskeg:

- Do not deploy personnel and equipment on marsh or vegetation.
- Remove pooled diesel with pumps and skimmers.
- Flush with low pressure water to herd diesel to collection point.
- Burn only in localized areas, e.g., trenches, piles or windrows.
- Do not burn if root systems can be damaged (low water table).
- Minimize damage caused by equipment and excavation.

On Water:

- Contain spill as close to release point as possible.
- Use spill containment boom to concentrate slicks for recovery.
- On small spills, use sorbent pads to pick up contained oil.
- On larger spills, use skimmer on contained slicks.
- Do not deploy personnel and equipment onto mudflats or into wetlands

Rivers & Streams:

- Prevent entry into water, if possible, by building berm or trench.
- Intercept moving slicks in quiet areas using (sorbent) booms.
- Do not use sorbent booms/pads in fast currents and turbulent water.

Contractor will supply information in regards to the contents of the following:

1) Drum Spill Kits

2) Equipment Spill Kits

5. NOTIFICATION & REPORTING PROCEDURE

1. Report to the Project Manager / Site Supervisor, the spill location, type of material, volume and extent of spill, status of spill (direction of movement), and prevailing meteorological conditions.
2. A person shall immediately report the spill, where there is a spill, or where there is areas of likelihood of a spill, in an amount equal to or greater than the amount set out in Schedule B of the NWT / Nunavut *Spill Contingency Planning and Reporting Regulations.*
3. Notify appropriate government agencies using the contact list provided below.
4. When reporting a spill, a person shall give as much of the following information as possible:

   i. date and time of spill;
   ii. location of spill;
   iii. direction spill is moving;
   iv. name and phone number of a contact person close to the location of spill;
   v. type of hazardous product/material spilled and quantity spilled;
   vi. cause of spill;
   vii. whether spill is continuing or has stopped;
   viii. description of existing containment;
   ix. action taken to contain, recover, clean up and dispose of spilled material;
   x. name, address and phone number of person reporting spill; and
   xi. name of owner or person in charge, management or control of hazardous materials at the time of the spill.

6. TRAINING

Site personnel will be trained on refueling procedures and on spill response. Spill response training will include:

- site layout and identification of storage areas
- how to initiate the spill response system
- safety concerns related to spills including fire and explosion
- personal exposure risks to potentially hazardous materials
- protocol for handling spills
- environmental risks to both ground and waterways
- approaches and options to containment and cleanup utilizing the various materials and equipment available onsite

- the use of spill kits and their contents including the use of plugs and plugging compounds
- reporting requirements

7. CONTACT NUMBERS

INAC Water Resources Inspector	867-975-4295
NWT/NU Spill Line	867-920-8130 (Fax) 867-873-6924
GN, Environmental Protection	867-975-6000 (Fax) 867-975-6099
Nunavut Water Board	867-360-6338 (Fax) 867-360-6369
INAC Project Manager (Mark Yetman)	(819) 934-1188
INAC Manager of Field Ops	867-975-4295
Qikiqtani Inuit Association	867) 975-8400
DFO	867-979-8000
Environment Canada	867-945-4644

8. NT- NU Spill Report Form

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

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: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER ____-_____
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME		

C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ 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	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
	SECOND PRODUCT SPILLED (IF APPLICABLE)	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 STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

9. Site Location Maps

(Please Note: Information surrounding the location of spill response equipment, the location of hazardous materials, as well as any other relevant details, is not know at this point as a contractor has not been hired yet)

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