

Spill Contingency Plan for Karrak Lake Research Station and

F-14 Satellite Camp, Nunavut

Prepared: March 2008
Updated: January 2010, May 2010
Effective date: 1 May 2010

Facility Manager:

Dr. Ray Alisauskas, Research Scientist
Environment Canada
Prairie and Northern Research Centre
115 Perimeter Road
Saskatoon, SK S7N 0X4
Phone: 306-975-4556
Fax: 306-975-4089

On-Site Facility Manager:

Dr. Ray Alisauskas, Research Scientist
Environment Canada
Prairie and Northern Wildlife Research Centre
115 Perimeter Road
Saskatoon, SK S7N 0X4
Phone: 306-975-4556
Fax: 306-975-4089

Dana Kellett, Wildlife Technician
Environment Canada
Prairie and Northern Wildlife Research Centre
115 Perimeter Road
Saskatoon, SK S7N 0X4
Phone: 306-975-5509
Fax: 306-975-4089

TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
PROCEDURES FOR SPILLS ON SNOW	3
PROCEDURES FOR SPILLS ON ICE.....	3
PROCEDURES FOR SPILLS IN WATER	3
REPORTING REQUIREMENTS AND CONTACT INFORMATION.....	4
KARRAK LAKE RESEARCH STATION	4
Site map:	5
In the event of a spill:.....	5
Spill clean-up equipment:	6
F-14 SATELLITE CAMP.....	6
Site Map:	6
In the event of a spill:.....	7
Spill clean-up equipment:	8
Spill Training for Field Staff.....	8
Appendix A: Nunavut Spill Report Form.....	9

PROCEDURES FOR SPILLS ON SNOW

Contaminated snow should be shoveled into empty 205L steel drums. After melt, the fuel can be disposed of by burning in the burning barrel, or simply be allowed to evaporate. The area in which the spill occurred should be marked with stakes, and after spring thaw, the area should be carefully inspected for soil contamination. If contaminated, the soil should be removed and incinerated.

PROCEDURES FOR SPILLS ON ICE

Spills should be removed using absorbent material, and incinerated. Remaining contaminated ice and slush should be shoveled into empty 205L steel drums, and after melt, the fuel incinerated or be allowed to evaporate. For larger spills, dykes constructed of compacted snow can be used to contain the spill. Trenches can also be cut into the ice so that the fuel pools in the trench, and removed using absorbent materials and incinerated.

PROCEDURES FOR SPILLS IN WATER

The fuel cache at Karrak Lake is located ~150 m from the high water mark at Karrak Lake, so only small spills (less than 20 L) are possible at the Research Station. Contaminated water should be removed using buckets and placed in empty 205L steel drums, and incinerated or be allowed to evaporate.

REPORTING REQUIREMENTS AND CONTACT INFORMATION

In the event of a spill at either the Karrak Lake Research Station or F-14 Satellite Camp, the Facility Manager and On-Site Facility Manager (Ray or Dana) should be contacted immediately, who will initiate the appropriate response. Spills are to be documented using the Nunavut Spill Report Form (Appendix A).

24-Hour Emergency Numbers:

Dr. Ray Alisauskas: 306-975-4556 or 306-230-3085

Dana Kellett: 306-975-5509 or 306-380-2452

24-Hour Nunavut Spill Report Line: 867-920-8139

INAC Manager of Operations (Inspection): 867-975-4295

Environment Canada 24-hour pager: 867-766-3737

Environmental Protection : 867-975-7700

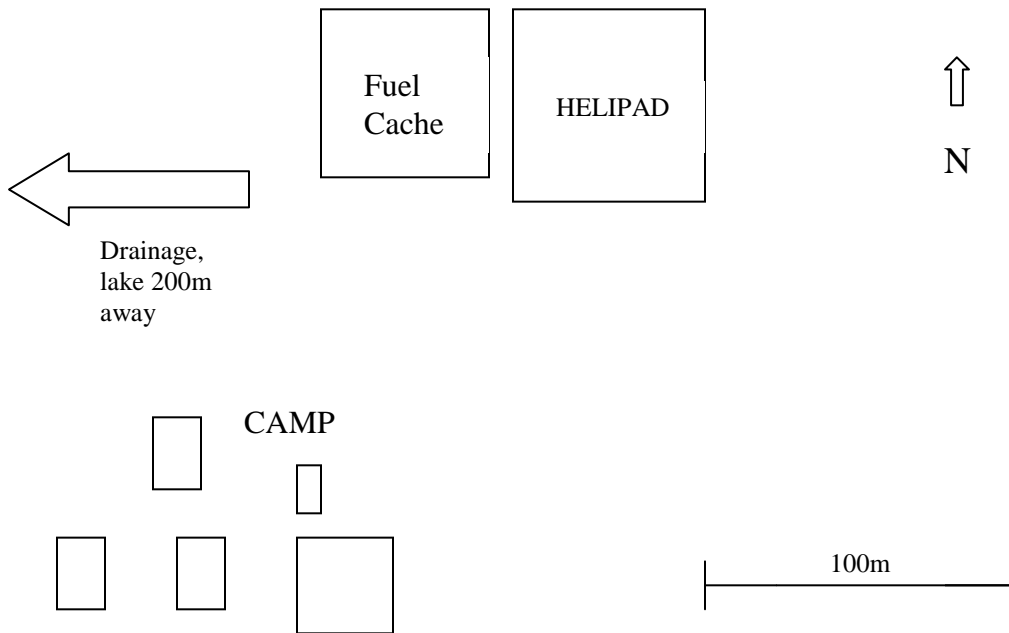
Nunavut Department of Environment, Cambridge Bay: 867-983-4167

KARRAK LAKE RESEARCH STATION

The Karrak Lake Research Station Facility is located at 67° 14' 13"N, 100° 15' 30"W.

The Facility has a fuel cache on site where up to 10,000 L of jet-B fuel may be stored in sealed 200 L steel drums; up to 2,000 L of gasoline may be stored in sealed steel drums; up to 200 L of naptha (white gas) may be stored in 200 L steel drum, and up to 500 L of propane may be stored in 100 L certified pressure tanks. The cache is located at the station on an upland location, approximately 100 m north of the camp buildings adjacent to the heli-pad.

Site map:



In the event of a spill:

- All spills should be reported to the camp manager who will initiate an appropriate response and notify the facility manager of the event.
- The spill should be contained using the pads/bumpers in the 'emergency spill kit', which will prevent the fuel from running downslope. Once the fuel has been contained in a dam with the bumpers, place the absorbent pads in the pool to soak up the fuel. The spill kit is capable of absorbing one entire drum of fuel (200L). Once absorbed and cleaned up, the pads and bumpers should be burned in the burning barrel. Contaminated soil should be dug up and placed in a plastic lined box for shipping to Saskatoon where it can be incinerated.
- In the event of a small spill (a few litres), the same procedure can be used as above although the entire kit will not need to be used. If spilled fuel did not pool on the soil, then absorbent pads will be of no use and the contaminated soil should be removed for incineration.

- The fuel cache should be monitored periodically to ensure that no drums are leaking or seeping. If a drum is found to be leaking, the remaining fuel should be transferred to another empty drum which does not leak. The amount of fuel that has leaked from the drum should be assessed and an appropriate response measure taken.

Spill clean-up equipment:

- An emergency spill kit can be found at the fuel cache site, and is stored in the Equipment Cabin. It is readily identified by the signage on the poly barrel which contains the kit. Any other equipment that may be useful for cleanup, such as shovels, buckets and hand pumps, can be found in the tool shed.

F-14 SATELLITE CAMP

The proposed location of the F-14 Satellite Camp is 67° 21' 09.4" N, 100° 20' 59.4" W. The only fuel that will be stored on site is approximately 20L of naphtha (white gas) for domestic use. Fuel will be stored in plastic jerry cans, and will be stored inside the cabin when the camp is not in use, and outside the cabin when the camp is in use.

Site Map:

Fuel and spill kit will be stored in the cabin located in the proposed parcel, illustrated below.

Spill clean-up equipment:

- An emergency spill kit will be stored in the cabin, and will be readily identified by appropriate signage. Any other equipment that may be useful for cleanup, such as shovels and buckets will also be stored in the cabin.

Spill Training for Field Staff

All field personnel receive a camp orientation and safety briefing upon arrival at Karrak Lake Research Station. This includes familiarization with safety and research equipment, and emergency spill response plans.

Appendix A: Nunavut Spill Report Form



Canada

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		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE #	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 THE NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT		
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 <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC		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				