Nunavut – Muskox Hill and Eden Point

RCD XXX – SPILL CONTINGENCY PLAN

Date prepared: July 6, 2006

This plan is prepared in accordance with De Beers Canada Inc. - Exploration Division ISO 14001 Environmental Management System and the NWT "A Guide to the Spill Contingency Planning and Reporting Regulations January 2002"

The Eden Point and Muskox Hill Projects will consist of temporary fly camps.
The Muskox Hill project will consist of 2 temporary fly camps with up to 10 persons located:

Fly camp-A: 73º 19.0' N and 98º 54.5' W
Fly camp-B: 72º 20.5' N and 98º 01.5' W

The Eden Point project will consist of 2 temporary fly camps with up to 10 persons located:

Fly camp-A: 75º 26.00' N and 89º 51.00' W
Fly camp-B: 76º 18.0' N and 92º 18.0' W

Responsible Person: Leyla Hoosain, Project Manager (24-hour contact)
(416) 645-1710

Head Office Information: De Beers Canada Inc. - Exploration Division
Early Exploration Manager – Paulo Pereira
One William Morgan Drive
Toronto, Ontario
M4H 1N6
Phone: (416) 645-1710
Fax: (416) 423-5811
Paulo.pereira@ca.debeersgroup.com

1. Spill Response Equipment

1.1. Responsible Persons will ensure that an appropriate inventory of spill response equipment is kept at each facility.

Small spill kits will contain at a minimum:
10 pads 16” x 20”
3 SOCS 3” x 4’
2 disposable bags
Nitrile gloves
Large spill kits will contain at a minimum:
50 pads 16” x 20”
4 SOCs 3” x 12’
8 pillows 18” x 18”
Goggles
Nitrile gloves
5 disposable bags

1.2. All fuel depots will be fully equipped with spill response equipment. The Responsible Person will ensure the equipment inventory is sufficient and is inspected on a regular basis, using the Spill Kit Checklist (CL 032).

1.3. All fuel caches will have secondary containment.

2. Spills Response and Clean-up Procedures

A variety of techniques may be used to respond to and clean-up spills, depending on the type of material spilled and the area in which it is spilled. The following actions are recommended for these specific types of spills as well as referring to the generic procedure above and the Spill Reporting and Response Checklist (CL 008). Reference Material Safety Data Sheets for the material spilled. Material Safety Data Sheets for all site products can be obtained at http:\\eservice.msds.com.

Login

User Name: DeBeers
Password: Toronto

3. Spills Response and Clean-up Procedures – Types of Terrain

3.1. **Fuel Spills**

3.1.1. Response and Clean-up for **Fuel Spills on Land**

"Land" may be defined as soil, gravel, sand, rock and vegetation. The Responsible Person shall refer to the following instructions, as necessary, for containment and cleanup in the event of a spill on land:

- Obtain absorbent sheeting, "Spagh-zorb" or other ultra-dry absorbent and any other necessary spill containment equipment, pump, hoses, etc.
- If the material is flowing, a berm of peat, native soil or snow is constructed down-slope from the seepage or spill. The tarp is placed in such a way that the fuel can pool for collection and removal (e.g., at the foot of the berm.) If there is a large volume of spilled product, pump the liquid into spare empty drums for sealing and disposal in accordance with Waste Disposal Procedure (OP 022).
- If the material is on the surface place absorbent sheeting to soak up spilled oil, gasoline, etc.
- Saturated sheeting is disposed of in an empty drum, which is then labelled and sealed. Alternatively, the pads may be wrung out into the empty drum(s); the drums marked and then secured for disposal in accordance with Waste Disposal Procedure (OP 022).

3.1.2. Response and Clean-up for **Fuel Spills on Water**

Prompt responses are required when fuel is spilled on water, to mitigate the spread of the impact. The Responsible Person shall refer, as required, to the following instructions for containment and cleanup in the event of a spill on water:

- If the spill is small, deploy hydrophobic (water-repellent) absorbent pads on water. Hydrophobic pads readily absorb hydrocarbons. Alternatively, an ultra-dry absorbent designed for use on water-based spills may be deployed.
- If the spill is larger, ready several empty drums to act as refuge containers for the spill.
- Deploy containment booms on the water surface to "fence in" the spill area gradually and to prevent it from spreading. Keep in mind those environmental factors such as high winds and wave action can adversely affect attempts at spill cleanup.
- Absorbent booms can then be deployed to encircle and then absorb any hydrocarbon spillage that may have escaped the containment boom.

- Once a boom has been secured, a skimmer may be brought on-scene to aid in capture of the hydrocarbon, or, utilize an absorbent pad; once captured, the product should be pumped to the empty fuel drums and held for disposal in accordance with the Waste Disposal Procedure (OP 022).

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3.1.3. Response and Clean-up for **Fuels Spills on Snow**

By its nature, snow is an absorbent, and fuel spilled on snow is collected with relative ease, either by shovel, in the case of small-range spills, and by loader, in the case of more extensive spills.

The Responsible Person shall refer, as required, to the following instructions for containment and cleanup in the event of a spill on snow:

- Assess the nature of the spill. Necessary equipment might include shovels, plastic tarp(s), empty drums, and loader.
- Shovel or scrape contaminated snow and deposit in empty refuge drums. If the spill is more extensive, build peat-bale berms or compacted-snow berms with plastic over top, around the affected area.
- Dispose of contaminated snow and ice as liquid industrial waste, in accordance with the Waste Disposal Procedure (OP 022).

3.1.4. Response and Clean-up for **Fuels Spills on Ice**

Spills on ice are handled in similar fashion as those on snow. However, as ice presents the added danger of immediate access to water, care must be taken to respond quickly to such spills. Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.

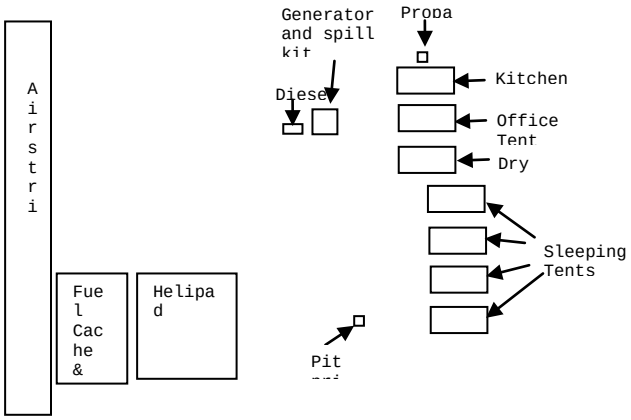
The Responsible Person shall refer to the following instructions for containment and cleanup in the event of a spill on ice:

- Construct a compacted-snow berm around the edge of the spill area as fuels will likely sit on the ice surface.
- Although hard ice will retard or prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the

ice (such as gravel) must be scraped from the ice surface and disposed of in an appropriate manner.

- Dispose of contaminated snow and ice as liquid industrial waste, in accordance with the Waste Disposal Procedure (OP 022).

Typical Fly Camp Set up:



Type and maximum amount of contaminants:

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No more than 18 drums of Jet B fuel
No more than 2 100 lb propane cylinders
No more than 1 45 gallon drums of diesel

Reporting a spill:

1. What to Report – External Reporting to Regulatory Agencies

Spill Reporting Thresholds

Jurisdiction	Compressed Gas	Flammable Liquids	Corrosive Substances	Environmentally Hazardous Substances	Dangerous Wastes	Other Contaminants
Nunavut	***	100 L	5 L/ 5 kg	1 L/ 1 kg	5 L/5 kg	100 L/ 100 kg

All radioactive spills must be immediately reported, however small.

*** A spill is "any discharge into the natural environment that is abnormal in quality or quantity in light of all the circumstances of the discharge". ALL spills that are discharged to the environment are to be reported.

- Note that regulatory authorities must be notified **forthwith**, upon discovery of a reportable spill, as required by legislation.

- If the Responsible Person is unsure about the "reportability" of a spill, the Safety, Health and Environmental Management Representative is to be contacted for direction. If you are unable to reach the Environmental Management Representative please err on the side of caution and report the incident.

A sufficiently trained Responsible Person that determines that external reporting is required will provide required information to regulatory authorities. This information may include:

☐ 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 spill

_____

☐ Type of contaminant spilled and quantity spilled

_____

☐ Cause of spill_____
_____
_____

☐ Whether spill is continuing or has stopped _____

☐ Description of existing/planned containment measures
_____
_____

☐ Actions taken to contain, recover, clean up and dispose of spilled contaminant
_____
_____

☐ Name and phone number of person reporting spill
_____
_____

☐ Name of owner or person in charge, management or control of contaminants at time of spill
_____

2. What to Report – Internal Reporting to De Beers Canada Authorities

☐ Report completed through Incident/Accident and Nonconformance reporting system (required as soon as possible, as per DBC System Level Procedure PROC 4.5.2 SYS)

☐ Report to Safety, Health and Environmental Management Representative if MAJOR spill

3. Where to report – Regulatory Reporting

TELEPHONE NUMBERS

24 hr Spill Reporting (call collect)	**1-867-920-8130**
Mine Site and Exploration Site Accidents	1-867-873-0123
DIAND Inspector (Iqaluit)	1-867-979-6445

DFO (Iqaluit)	1-867-979-8039
Environment Canada (Iqaluit)	1-867-475-4644
Environment Canada 24 hour pager service	1-867-920-5232
R.C.M.P. (Iqaluit)	1-867-979-0123

Spill Clean up and Disposal:

All contaminated material will be removed to containers which will be flown for disposal at an approved waste disposal facility.

The NWT Spill Report Form below must be submitted to the FAX number listed on the form.

Northwest Territories

NWT SPILL REPORT

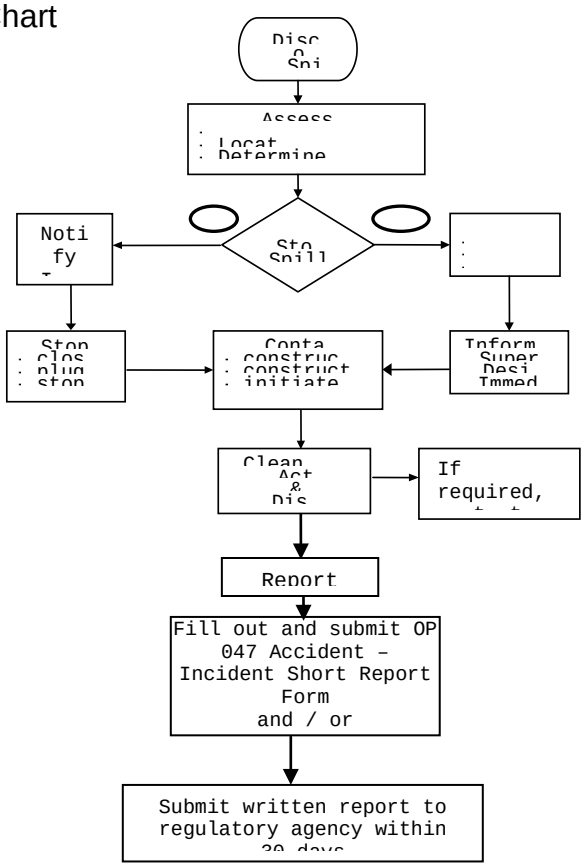
(Oil, Gas, Hazardous Chemicals or other Materials)

24 – Hour Report Line
Phone: (867) 920-8130
Fax: (867) 873-6924

A Report Date and Time	B Date and Time of spill (if known)	C ☐ Original Report ☐ Update no._____	Spill Number
D Location and map coordinates (if known) and direction (if moving)			
E Partly responsible for spill			
F Product(s) spilled and estimated quantities (provide metric volumes/weights if possible)			
G Cause of spill			
H Is spill terminated? ☐ yes ☐ no	I If spill is continuing, give estimated rate	J Is further spillage possible? ☐ yes ☐ no	K Extent of contaminated area (in square meters if possible)
L Factors effecting spill or recovery (weather conditions, terrain, snow cover, etc.)		M Containment (natural depression, dikes, etc.)	
N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials			
O Do you require assistance? ☐ no ☐ yes, describe:	P Possible hazards to person, property, or environment; eg: fire, drink water, fish or wildlife		
Q Comments or recommendations		FOR SPILL LINE USE ONLY Lead agency Spill significance Lead Agency contact and time Is this file now closed? ☐ yes ☐ no	
Reported by	Position. Employer, Location	Telephone	
Reported to	Position. Employer, Location	Telephone	

NWT 1752/0202

Spill Response Flow Chart



Nunavut – Muskox Hill and Eden Point

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Training:

All personnel at site will be trained in spill response entitled De Beers Canada Inc. - Exploration Division Spill Prevention and Cleanup programme.

This programme includes training in:

- types of substances that make up a spill,
- a definition of a spill,
- preventing a spill,
- clean up of a spill,
- and reporting a spill

Response and clean-up:

The Muskox Hill and Eden Point projects will maintain 1 large spill kit of 200 L located near the fuel cache. One smaller spill kit (10 L) near the generator.
A spill kit will be kept on the helicopter. Additional absorbent padding will be kept in stock.