Spill contingency plan for Ellef Ringnes Field Camp.

(a) the name, address and job title of the owner or person in charge;
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403-292-7111

(b) the name, job title and 24-hour telephone number for the persons responsible for activating the spill contingency plan;

Doug Stearn, Camp Manager,
Ellef Ringnes base camp
Satellite phone number to be determined.

Can also be contacted via
Polar Continental Shelf Project,
Resolute Bay
(867) 252-3872

(c) a description of the facility including the location, size and storage capacity;

Fuel will be stored in a secondary containment berm on sandy terrain adjacent to the airstrip, over 100 m from the creek. The exact location will be chosen at the firmest ground at the time that the berm is established. The berm will be approximately 10 m by 10 m to accommodate 125 drums (full and empties), and 10 propane tanks. A spill kit and contingency will be in a conspicuous and readily accessible spot. WHIMIS and MSDS information will also be available.

Fuel drums will be stored on their side, with bungs at the 3 o'clock and 9 o'clock positions, and with bungs seals immersed in fuel to prevent drying and cracking. Proper support may also be used beneath the drums to ensure the drums do not settle. Additionally, if needed blocks will be used to prevent drums from rolling. Drums will be in neat rows with enough space between each row to allow daily visual inspection.

Inventory tracking will also be done to ensure we are aware of the amount and type of fuel that has been used and remains in the cache.

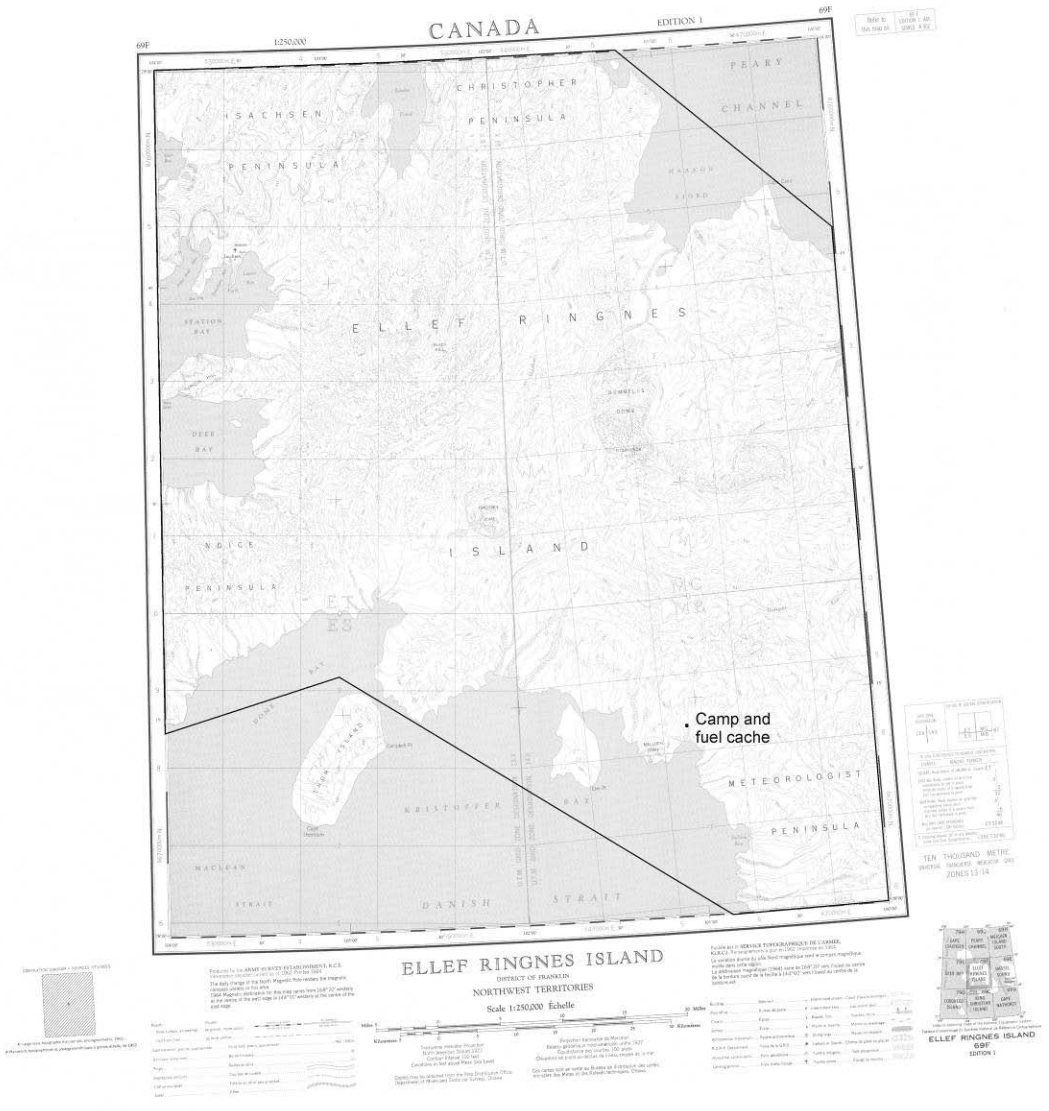
(d) a description of the type and amount of contaminants normally stored at the location described in paragraph (c);

Diesel 4 x 45 gal. drums = 820 L. Diesel fuel will be stored in a secondary containment (berms) with spill kit on hand.

Aviation fuel 120 x 45 gal. drum = 24600 L. Aviation fuel will be contain a secondary containment (berms) and spill kit on hand.

Propane 10 x 20lb tank = 200lbs. Stored in well ventilated area with berms and an approved fire extinguisher.

(e) a site map of the location described in paragraph (c);



Camp location (1:250 000)

View south along the Malloch herc strip showing terrain and approximate location of fuel cache. The precise location will be determined at the time the berm is set up on the driest and most stable ground.

(f) the steps to be taken to report, contain, clean up and dispose of contaminants in the case of a spill;

Prevention

While response plans are necessary in the event a fuel spill occurs, all involved with fuel handling and storage will strive to take all necessary feasible precautions to ensure fuel spills do not occur. To minimize the risk of a fuel spill many preventative measures and standard operating procedures will be implemented. Some key preventive measures include:

- Following federal and territorial requirements affiliated with storing fuel based on amounts and locations.
- All fuel will be stored and transported in approved sealed containers.
- All fuel will be accompanied by a secondary containment structure (berm) to catch any fuel spills.
- No fuel storage containers will be placed within 30m of the ordinary high water mark of any water body.
- No fuelling or servicing of equipment will be done within 30m of a water body.
- Any portable fuel storage not in use will be placed a minimum of 30m from the ordinary high water mark of any water body.

- Precautions will be taken in the transportation and handling of fuels to prevent contamination of soil or water.
- Fuel storage areas and equipment will be inspected regularly to detect leaks and overall condition. Leaks will be repaired immediately.
- Fuel spill kits and tools needed to contain a fuel spill will be kept handy at the necessary caches as well on board aircraft that use fuel.
- Those refuelling will be trained on proper fuelling procedures (e.g. uses of drip pans, proper drum storage) and equipment (e.g. hand and electric transfer pumps, filter units, spill kits).

Fuel transfers are often the primary causes of fuel contamination, thus all individuals involved with refuelling will undertake reasonable measures to ensure that fuel transfers are done properly to avoid spills and contamination. To minimize the risks of fuel contamination during a fuelling event all persons involved will be trained and aware of the following:

- Safe operation of the equipment they use;
- Operation of emergency controls;
- Procedures to be followed in the event of a fuel spill or leak and in response to an emergency condition;

Spill kits will also be readily available and key personnel will be trained in the proper dispensing of fuel and use of equipment if ever needed (e.g. spill kits.) Drip pads will be used when transferring fuel or filling the aircraft to minimize contamination. Drums will be inspected on a regular basis and in the event that there is a risk of a fuel spill such as a damaged drum, the drum will be manoeuvred to reduce any potential leaking, patch the drum if needed from items in the spill kit. Leaking drum will be marked so it is not to be reused and the drum removed from the site.

Responding to a Spill

In the event that a fuel spill has occurred, below is a list of procedures and suggested course of action to be used upon detection of a spill.

Initial Action

1. Be alert and consider your safety first. If possible, identify the product spilled;
2. Assess the hazards to persons in the vicinity of the spill and alert or take appropriate evacuation measures if needed (e.g. eliminate sources of ignition);
3. If possible, control danger to human life;
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 flow of material (e.g. stop fuelling, shut off valve (if present), manoeuvring a leaking drum);
6. Gather information on the status of the situation;
7. Report the spill without delay to the spill response person/team affiliated with the project and ensure that where applicable the government is notified at the same

time according to via the 24 Hour Spill Report Line for the appropriate jurisdiction (see Reporting Procedures below);
8. Resume any effective action to contain, clean up, or stop the flow of spilled material.

In the event of a spill protective equipement and tools will be used on site to clean the spill. Including the use of the following:

- Protective wear (e.g. hand, eye, foot, etc.)
- Basic Hand tools (e.g. shovels, picks, axes, rakes, etc…)
- A method to move soil (i.e. wheel barrow, buckets)
- A competent fuel drum(s) for transferring any leaking fuel
- Absorbent materials (i.e. EnviroMat, Sorb-Sox Blankets, granular absorbent sand, etc…)

Procedure

1) The person who first discovers a fuel spill would follow the procedures set out in the '*Initial Action*' section (stated above).
2) If the spill is not easily contained and/or cleaned up by the person who first discovers it, then that person will immediately report the incident to the project lead or camp/environmental manager.
3) Together with the project lead or camp/environmental manager, the situation will be reassessed and effective actions will be carried out in order to contain, clean up, and stop the flow of the spillage. Such actions may include:

    a) Determining the origin of the spill, if fuel drums have been punctured or are leaking due to unsatisfactory seals, the fuel should be transferred into competent drums and/or seals should be replaced;
    b) Absorbents and/or booms should be placed in order to recover all the free fuel before it is allowed to seep into the surrounding ground and/or caught up within any runoff water that may pass to a nearby water source;
    c) The construction of containment dykes and recovery trenches, using available hand tools to divert and control runoff from the leaking fuel to allow for collection before contamination of waterways (in the event that fuel manages to escape the secondary (berm) contaiment;
    d) Continual monitoring of the site to ensure no subsequent or new spills have occurred;
    e) Safe and proper disposal of any materials used during the containment and clean up of spilled fuel (i.e. if the amount of fuel is extensive, possibility using old drums to collect and store the contaminated fuel for use in burn pits, burning or packaging of absorbent materials), and
    f) Continual assessment of soils and waterways within the area in order to determine if further remediation is required.

Reporting

All spills or potential spills of petroleum products or other hazardous materials over a certain volume must be reported to the 24 hour spill report line to ensure that an investigation may be undertaken by the appropriate government authority. If a reportable spill has occurred we will be contacting the Nunavut and NWT 24-hour Spill Report Line.

Phone (867) 920 – 8130
Fax (867) 873 – 6924

A spill report form is also to be completed as soon as possible and submitted.

(g) the means by which the spill contingency plan is activated;

Anyone in camp can activate the spill response by alerting the camp manager. Daily visual inspections will be made of the space between the rows of drums for evidence of any leakage. Prior to the project beginning all that will be at the camp site will be provided an orientation of the site, the equipment available and key personnel (e.g. camp manager, project leader).

(h) a description of the training provided to employees to respond to a spill;

All staff will be trained in workplace hazardous materials inventory system (WHMIS). At least one person in camp will have completed a one-day spill responder course.

(i) an inventory of and the location of response and clean-up equipment available to implement the spill contingency plan;

Two spill kits will be on site, each containing:
1 - 10' PIG® BLUE Absorbent Sock
4 - 48" PIG® BLUE Absorbent Socks
15 - PIG® Universal Mat Pads
2 - PIG® Pillows
5 - Disposal Bags and Ties
1 - Emergency Response Guidebook
6 - Tamper-proof Labels
Protective Equipment - Gloves, Safety Glasses
MSDS sheets
A copy of the Contingency Plan

(j) the date the contingency plan was prepared.

January 18, 2010