# Spill Contingency Plan

## 1. Contact Information

The Spill Contingency Plan (SCP) was prepared for the CAM-2, Gladman Point landfill monitoring team. The SCP is effective as of June 1, 2015 and will be available as a stand-alone document to all team members and will also be posted on-site in the camp.

The landfill monitoring is being conducted as a follow up to the DEW Line Clean Up Project, as represented by the Department of National Defence and Defence Construction Canada. To request additional information, or additional copies of the SCP, please contact:

**Tamara Van Dyck**
**Coordinator, Environmental Services**
**Defence Construction Canada**
**180 Kent Street, 14th floor, Ottawa ON K1P 0B6**

# 2. Introduction

The following contingency plan presents the prescribed course of action to be taken in the case of an unanticipated spill event occurring during the landfill monitoring program at the CAM-2 site. The plan will enable the site team to maximize the effectiveness of the environmental protection response and meet all regulatory requirements for reporting to the appropriate authorities.

## 2.1 Scope and Purpose

The purpose of the plan is to:

- Provide a clear statement of the procedures to be followed in response to a spill;
- Minimize the potential environmental impact of a spill by establishing a pre-determined action plan;
- Protect the health and ensure the safety of the personnel involved in the Spill Response activities;
- Provide a reporting network for spills;
- Ensure site restoration;
- Identify the roles and responsibilities involved in the spill response activities; and
- Identify sufficient personnel, materials and equipment needed to make an adequate response to a spill.

## 2.2 Site Information

It is estimated that the camp operation will require minimal amounts of gasoline for the all-terrain vehicles, which will be purchased from the community and will not be stored. Each ATV will be equipped with a spill kit, in the event of an equipment leak.

## 2.3 Potential Safety Hazards

The most significant potential safety hazard related to a fuel spill at the CAM-2 site is the possible soil and water contamination from the spill. The ATV's will not be stopped in areas of ponded water or near streams to avoid this hazard. Although soil contamination is a real potential hazard, the likelihood is small, and potential spill volumes are small.

## 2.4 Environmental Mapping

The attached drawing shows the site plan.

## 2.5 Resource Inventory

The following equipment is typically on-site during a landfill monitoring program event: ATV, small spill kits, and shovels.

## 2.6 Training and Exercises

As the potential spill volume is small (20 L or less), no formal spill response training is typically provided. However, general spill response awareness and use of the spill clean-up materials is provided as part of the Health and Safety training for the site.

# 3. Response Organization

## 3.1 Roles and Responsibilities

The contractor will be responsible for spill response clean up in the event of a spill during the landfill monitoring activities at CAM-2. The responsibilities are described below.

- Ensure the team is aware of the spill kit locations and their use.
- Ensure sufficient materials and equipment are available for adequate response to fuel and hazardous material spills.
- Verbally report all spills to the DCC Project Manager as soon as practical.
- Stop or reduce discharge, if it is safe to do so.
- Make every effort to contain the spill.
- Deploy hand tools and absorbents to the spill site.
- Follow all guidelines and regulations for disposal of spilled materials and contaminated soil as established by appropriate government agencies.
- Document all events/actions.
- Report the spill to the Spill Report Line and follow up with a written spill report. This report shall summarize the initial report information; confirmation of spill volume; actions taken; future remediation/monitoring requirements; and a sketch map and/or photographs of the spill area.

## 3.2 Communications and Contacts

Intra-site communication is via two-way radios, and a satellite phone will be used for all other communications. The following table provides relevant contact numbers.

| Resource | Location | Phone No. |
|---|---|---|
| 24 Hour Spill Line | NWT/Nunavut | 867-920-8130 |
| Environment Canada | Environmental 24 hour Emergency | 867-920-5131 |
| Environment Canada | Enforcement Officer | 867-975-4644 |
| Government of Nunavut – Environmental Protection | Iqaluit | 867-975-5907 |
| Aboriginal Affairs and Northern Development Canada – Water Resources Inspector | Nunavut Regional Office | 867-975-4550 |
| Aboriginal Affairs and Northern Development – Land Administration Minister | Nunavut Regional Office | 867-975-4280 |
| Department of Fisheries and Oceans | Nunavut Regional Office | 867-975-8000 |
| Defence Construction Canada (representatives for the Department of National Defence) | Environmental Officer – Tamara Van Dyck | 613-995-9741 |

# 4. Action Plan

Gasoline could potentially be spilled at the CAM-2 site. The fuel will be stored in the original barrel in the upright position, so the potential spill volumes are relatively small and would only affect the immediate area around the camp, where the fuel will be stored.

## 4.1 Initial Action

In the event of a spill, protection of human health and safety is paramount. Contamination of personnel involved in a clean-up is a real possibility, as is contamination of the surrounding workplace and environment. The individual discovering a spill shall:

- Warn the people in the immediate vicinity and evacuate if necessary.
- Isolate or remove any ignition sources and take all safety precautions before approaching.
- Attempt to stop the leakage and contain the spill, if safe to do so.
- Deploy equipment and personnel to initiate containment and clean up, report to the DCC Environmental Officer.
- Prepare the Government of the Northwest Territories Spill Report Form.
- Notify all other pertinent parties, including the DND and other government agencies.

## 4.2 ATV Parking Area

In order to prevent spill or accidents at ATV parking area, the following procedures apply:

- Conduct ATV fuelling in a manner that avoids spillage. Operators are to be in attendance for the duration of the refuelling operation and are to ensure that all storage container outlets are properly sealed after use.
- Smoking is prohibited within 7.5 metres of the fuel storage facility.

# 5. Reporting Procedures

When reporting a spill to the 24 Hour Spill Report Line and completing the Nunavut Spill Report Form, the following information shall be included:

- Date and time of the spill;
- Location of the spill and direction the spill may be moving;
- Name and phone number of a contact person close to the location of the spill;
- Type of contaminant spilled and quantity spilled;
- Cause of the spill;
- Whether the spill is continuing or has stopped;
- Description of the existing containment;
- Action taken to contain, recover, clean up and dispose of spilled material;
- Name, address and phone number of the person reporting the spill; and
- Name of owner or person in charge, management or control of the contaminants at the time of the spill.

The spill report is to be submitted to the Aboriginal Affairs and Northern Development Canada (AANDC) Water Resources Officer no later than 30 days after initially reporting the spill to the spill report line. The contact list is provided in Section 2.2.

**SCREENING DECISION**

**Date: March 3, 2003**

Hon. Robert Nault
Minister Responsible for Indian and Northern Affairs
Ottawa, Ontario

Dear Minister:

**RE: Screening Decision of the Nunavut Impact Review Board (NIRB) on Application:**
**NIRB 03DN003 DIAND N2003X0002 NWB NWB5GLA**
**DEW Line Clean-up CAM-2, Gladman Point**

**Authority:**
Section 12.4.4 of the Nunavut Land Claim Agreement states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

**Primary Objectives:**

The primary objectives of the Nunavut Land Claims Agreement is referenced in the screening section 12.4.4 (a) are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well being of the residents of Canada outside the Nunavut Settlement Area.

The decision of the Board in this case is 12.4.4 (a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;

**Reasons for Decision:**

NIRB's decision is based on specific considerations that reflect the primary objectives of the Land Claims Agreement and NIRB's mandate. Our considerations in making this decision included:

- the potential impact of further contamination of the ecosystem from PCB's, heavy metals, petroleum products or other materials entering the marine environment and subsequently into the food chain from failure of the designed storage and containment structures;
- the adequacy of plans for the clean up, storage and removal of contaminated soils, spills and to prevent the further migration of PCB's and petroleum products;
- the adequacy of plans to control runoff and drainage control within and around the facility;
- the potential to contaminate clean areas from wind blown debris or contaminated machinery;
- the potential to impact fish or fish habitat;
- the impact and disturbance to nesting migratory birds and their habitat along coastal areas due to activities;
- the potential to impact on traditional hunting and fishing activities;
- the potential to impact permafrost causing long-term adverse effects such as differential settlement, terrain instability and erosion;
- the potential impact from disturbance to vegetation;
- the potential impacts to the terrain from heavy equipment and vehicles which may cause rutting and erosion;
- potential impact of quarrying activities to the ecosystem;
- the potential impact to the ecosystem from accidental spillage of petroleum products;
- the storage and disposal of fuel, garbage, sewage, and grey water, and the impact of these on the ecosystem.

**Terms and Conditions:**

- That the terms and conditions attached to this screening report will apply

**Storage and Management of Hazardous Materials**

1. The Permittee shall not mix or dilute any hazardous materials with any substance or divide into small or quantities to avoid meeting the definition of hazardous waste.
2. The Permittee shall store hazardous material in their original containers, where possible, or in containers manufactured for the purpose of storing hazardous waste. The containers must be sound, sealable and not damaged or leaking.
3. The Permittee shall maintain a record of the type and amount of waste in storage.
4. The Permittee shall label all containers according to the requirements of the Work Site Hazardous Materials Information System (WHMIS) of the Safety Act or the relevant Transportation Authority, if transportation is planned.
5. The Permittee shall ensure that drainage into and from the site is controlled to prevent spills and leaks from leaving the site and to prevent run off from entering the site.
6. The Permittee shall segregate incompatible wastes by chemical compatibility to ensure safety of the public and workers and facility.

7. The Permittee shall ensure the storage facilities are a secured area with controlled access. Only persons authorized to enter and trained in waste handling procedures should have access to the storage site.
8. The Permittee shall perform regular inspections and provide reports to the authorizing agency.
9. The Permittee shall place containers so that each container can be inspected for signs of leaks and deterioration.
10. The Permittee shall remove any leaking and deteriorated containers and transfer their contents to a sound container.
11. The Permittee shall have emergency response equipment appropriate for the hazardous waste stored on site.
12. The Permittee shall ensure that all hazardous wastes are stored in a proper manner and transported from the site in accordance with the *Transportation of Dangerous Good Act and Regulations.*
13. The Permittee shall ensure that the storage facility is registered if the site is to be used for long term storage (period of 180 days or more), and quantities to be stored exceed the quantities set out for individual waste classes or if the aggregate quantity for all classes of waste exceed 5000kg/L.
14. If a *Fisheries Act* authorization is required, it must first be obtained from the Department of Fisheries and Oceans (DFO) and screened by the Nunavut Impact Review Board (NIRB) before the commencement of any activity associated with the Airstrip Landfill. If any other Federal or Territorial Authorization is required it must first be screened by NIRB before the issuance of an authorization.

**Fuel Transport and Storage**

15. The deposition of deleterious substances into water bodies frequented by fish is prohibited under Section 36 of the *Fisheries Act* unless authorized by regulation. The Permittee shall therefore ensure that any deleterious chemicals, fuel or wastes associated with the proposed project do not enter such waters.
16. The Permittee shall ensure that the transportation of fuel shall be done in compliance with the *Transportation of Dangerous Goods Act and Regulation*s requirements.
17. The Permittee shall ensure that fuel storage containers are not located within thirty (30) metres of the ordinary high water mark of any body of water unless authorized by the Minister.
18. The Permittee shall ensure that all fuel is kept in double walled containers. All valves on fuel tanks should have receptacles placed beneath them to catch any leaked fuel.
19. The Permittee shall inspect all fuel containers for leaks daily and shall report and repair all leaks immediately.
20. The Permittee shall construct a dyke around each stationary fuel container or group of stationary fuel containers where one container has a capacity exceeding 4000 litres.
21. The volume of the dyked area shall be 10% greater than the capacity of the largest fuel containment placed therein.
22. The dyke and area enclosed by the dyke shall be lined with a type of plastic film liner approved by the Engineer.

23. The Permittee shall ensure that the dyke and area enclosed by the dyke shall be impermeable to petroleum products at all times.
24. The Permittee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.
25. The Permittee shall have emergency response and spill contingency plans for fuel transfer and storage as well as any other hazardous liquids at the site in place prior to the commencement of the land use activity.
26. The Permittee shall immediately report all spills of petroleum and hazardous chemicals to the Twenty-four (24) hour spill report line (867) 920-8130.
27. The Permittee shall ensure that vehicle and equipment maintenance and servicing shall be conducted only in designated areas and shall implement special procedures to manage fluids, waste and contain potential spills.
28. The Permittee should ensure that all ethylene glycol (antifreeze) is managed in accordance with the *Environmental Protection Act (EPA)* of NWT due to its high potential to attract wildlife.
29. The Permittee shall ensure that any chemicals, fuels or wastes associated with the project do not spread to the surrounding lands or enter into any water body.
30. The Permittee shall ensure that a land use inspector approves the containment of the contaminated soil.

**Waste Disposal**

31. The Permittee shall not discharge or deposit any refuse substances or other waste materials in any body of water, or on the banks thereof, which will impair the quality of the waters of the natural environment.
32. The Permittee shall ensure that any areas designated for waste disposal shall not be located within thirty (30) metres of the ordinary high water mark of any body of water, unless otherwise authorized.
33. The Permittee shall ensure that all waste management sites are mapped and inventoried.
34. The Permittee shall recover and recycle material wherever practical.
35. The Permittee shall construct, operate, maintain and monitor the containment areas to ensure that there is no seepage of leachate into natural drainage and waterways and subsequently into the marine environment. Any seepage that occurs should be collected and treated as hazardous material.
36. The Permittee shall regrade the landfills to match the contours of the land.
37. The Permittee shall treat and dispose of all lead and PCB contaminated paints as hazardous materials.
38. The Permittee shall keep all garbage in a covered metal container until disposed of in an approved disposal site.
39. The Permittee shall incinerate all combustible and food wastes in a forced air fuel-fired incinerator daily to eliminate potential for wildlife problems created by the attraction of wildlife to garbage.
40. The Permittee shall ensure that all ash and non-combustible non-hazardous wastes are buried in an approved landfill.
41. The Permittee shall deposit all sewage and greywater discharged in a sump ensuring drainage is away from any waterbody.

42. The Permittee shall backfill and recountour all sumps to mach the natural environment prior to the expiry date of the permit.

**Environmental**

43. The Permittee shall ensure that all hazardous material management areas shall be located a minimum distance of one hundred (100) metres from the nearest water body.
44. The Permittee shall implement procedures to screen CEPA soils to avoid / minimize the spreading of contaminated dust.
45. The Permittee shall control all movement of heavy machinery, vehicles and equipment within the hazardous material management area to prevent the dispersion of potentially hazardous dust and materials into the environment.
46. The Permittee shall clean (decontaminate) all heavy machinery and equipment prior to movement to another area. All fluids (including water) resulting from the cleaning shall be treated as hazardous waste and shall be containerized and disposed of as per the regulations.
47. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
48. The Permittee shall suspend operation if rutting occurs.
49. The Permittee shall avoid causing soil damage that disturbs natural drainage patterns or expose permafrost. These areas shall be repaired immediately.
50. The Permittee shall insulate the ground surface beneath all structures and facilities, by constructing gravel pads or other approved methods to prevent any vegetation present from being removed and to prevent the degradation of permafrost causing ground settling and/or erosion.
51. The Permittee shall leave a strip of undisturbed vegetation at least thirty (30) metres width between roads, quarry or navigable waterways.
52. The Permittee shall commence and foster revegetation on all parts of the land used. Methods should include scarification and transplanting of native vegetation from other areas.
53. The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation.

**Quarry**

54. The Permittee shall not remove any material from below the ordinary high water mark of any stream.
55. The Permittee shall slope the sides of the excavations and embankments except in solid rock to 2:1 (two horizontal, one vertical).
56. The Permittee may only excavate and stockpile in areas designated.

**Wildlife**

57. The Permittee shall ensure that there is no damage to wildlife habitat in conducting this land use operation.
58. The Permittee shall use the latest bear detection and deterrent techniques to minimize man-bear interactions. The Permittee is strongly urged to contact DSD wildlife officers regarding safety in polar bear country literature and training.

59. The Permittee shall ensure that pilots maintain an altitude of at least 300m above ground or water when passing over areas where birds are concentrated. Raptor nesting areas should be avoided at all times.
60. The Permittee shall ensure that land use activities avoid environmentally sensitive areas (denning, nesting areas) by a minimum of 250metres.
61. The Permittee shall make all efforts to minimize harassment to wildlife including conduction operations in sensitive areas during critical time periods (denning, nesting, staging etc.).

**Stream Crossings**

62. The harmful alteration, disruption or destruction of fish habitat is prohibited under Section 35 of the *Fisheries Act.* No construction or disturbance of any stream/lake bed or banks of any definable watercourse is permitted unless authorized by DFO.
63. The Permittee shall limit instream activity. Machinery is not permitted to travel up the streambed and fording of the stream be kept to a minimum.
64. The Permittee shall ensure that stream crossings are located to minimize approach grades.
65. The Permittee shall ensure that bank disturbance is to be avoided.
66. The Permittee shall stabilize approaches during construction and upon completion of the project to control run off, erosion and subsequent siltation of the stream. Methods to control erosion may include revegetation of slopes, drainage ditches and sediment traps.
67. The Permittee shall not deposit or permit the deposit of sediment into any waterbody.
68. The Permittee shall ensure that all equipment is well cleaned and free from contaminated materials, oil and grease.
69. The Permittee shall not conduct mechanized clearing within thirty (30) metres of the normal high water mark of a watercourse in order to maintain a vegetative mat for bank stabilization.
70. The Permittee shall ensure that debris from clearing activities will not be dragged or skidded across water courses, and all slash and debris is to be disposed above the high water mark so that it does not enter the water
71. The Permittee shall control siltation from construction activities with geotextile silt barriers. These barriers should be installed to sufficiently isolate the abutment construction and associated fill activities for the stream flow while allowing free flow of the stream main channel. These barriers must also be removed in a manner that does not result in the release of trapped sediments.
72. The Permittee shall ensure that culverts are removed upon abandonment of roadways.

**Camp**

73. The Permittee shall locate all infrastructure facilities on gravel, or other durable land.
74. The Permittee shall keep the land use area clean and tidy at all times.

**Archaeological Sites**

75. The Permittee shall follow all terms and conditions for the protection and restoration of archaeological resources as outlined by the Department of Culture, Language, Elders and Youths (CLEY).

**Monitoring**

76. The Permittee shall include in the monitoring program sampling from the marine ecosystem (sediment, arthropods, etc) to ensure contaminant pathway is not entering marine ecosystem.
77. The Permittee shall maintain all site signs and notices at the PCB storage facility.

**Recommendations**

1. NIRB would like to encourage the proponent to hire local people and services, to the extent possible
2. NIRB advises all proponents that they should consult with the local residents regarding their activities in the region.
3. Any amendment requests deemed by NIRB to be outside the original scope of the project will be considered a new project.
4. The Permittee shall notify NIRB, DFO, DOE and the NWB of any changes or plans in operating conditions associated with this land use activity.
5. The Permittee shall advise NIRB of the final destination of the contaminated soil and ensure all the proper permits for transportation of the soil are obtained prior to removal.

**Validity of Land Claims Agreement**

Section 2.12.2
Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated _____ at Arviat, NU

_____
Elizabeth Copland, Chairperson