APPENDIX F

Site Specific Spill Contingency Plan
Cape Peel, PIN-E Cleanup

Introduction

The project objective is to cost effectively remediate and restore the remote Arctic intermediate DEW Line Site known as PIN-E, Cape Peel while minimizing disturbance to the sensitive arctic ecosystem.

PIN-E, Cape Peel, is a former Intermediate Distant Early Warning (DEW) Line radar station constructed in 1959 by the Department of National Defense (DND) and was subsequently abandoned in 1963, at which time responsibility for the site was assumed by Indian and Northern Affairs Canada (INAC). The site is located on the south coast of Victoria Island in Nunavut, at 69o04'N, 107o17'W, on the north shore of Dease Strait. It was one in a string of defense radar sites stretching across the Arctic from Alaska to Greenland, operated jointly by Canada and the US as "intermediate sites" between the alternating larger DEW Line Sites.

The nearest community and charter base is Cambridge Bay, located approximately 80 km to the east of the PIN-E site. Cape Peel, PIN-E is located approximately 340 km to the northeast of Kugluktuk, Nunavut. Yellowknife is located approximately 800 km to the south.

E. Gruben's Transport Ltd. (EGT) of Tuktoyaktuk is the prime contractor responsible for the cleanup of the Cape Peel, PIN-E site. Responsibility and authority for the remediation of the PIN-E site is currently retained by Indian and Northern Affairs Canada (INAC). To achieve the goal of site remediation and restoration INAC has retained the services of Public Works and Government Services Canada (PWGSC) to provide technical support, contract administration and Site supervision. The site is located within Nunavut Territory and subject to the terms of the Nunavut Comprehensive Land Claim Agreement (CLCA).

The remediation work for the PIN-E site requires the handling and disposal of both non-hazardous and hazardous materials. The work has been designed based upon the remedial guidelines and clean-up criteria of the INAC Abandoned Military Site Remediation Protocol. Any hazardous materials encountered on site will be handled according to regulations stipulated by the Canadian Environmental Protection Act (CEPA), Transportation of Dangerous Goods Act (TDGA) and the Nunavut/NWT Guideline for the General Management of Hazardous Waste as applicable. Some of the remediation materials will be managed and disposed of onsite and some non-hazardous materials will be transported to PIN-D for disposal in the Non-Hazardous Landfill; however there are certain hazardous materials that will require professional and careful handling, packaging and offsite southern transportation and disposal at licensed hazardous waste facilities.

Work on the site will include upgrading of site roads and airstrips to facilitate construction activities; demolition, segregation and disposal of buildings and infrastructure; collection, sorting, on-site transport and incineration of non-hazardous, unpainted, untreated combustible waste; collection, sorting, off-site transport from PIN-E to PIN-D, and disposal of PIN-E non-hazardous waste within the PIN-D Non-Hazardous Waste Landfill; excavation and disposal or treatment of Contaminated Soils, as required; construction, operation and closure of a Landfarm at PIN-E; excavation of buried debris, segregation of debris into waste streams (hazardous and non-hazardous); transport and disposal of waste, off-site transport and disposal of designated contaminated soil to the Designated Waste Disposal Facility; collection, excavation, sorting, containerization and off-site transport to the Designated Hazardous Waste Disposal Facility of all hazardous demolition, hazardous debris, hazardous soils and hazardous liquids; collection, cleaning and disposal of barrels and contents, on-site incineration of barrel contents that meet the DLCU Barrel Protocol criteria including solid and liquid non-hazardous wastes; dewatering and re-grading of site works and backfilling and grading of all excavated areas using local borrow material.

Mobilization to the site will take place via Northern Transportation Company Limited (NTCL) barge in early to late August of 2011. Contract work will be conducted through the summer of 2011 and 2012. Demobilization from the site will take place in September of 2012.

Spill Prevention

EGT emphasizes the prevention of spills through training, refueling procedures and the provision of adequate and appropriate equipment.

Diesel P-50 fuel will be delivered to PIN-E via sea-lift (barge). Upon arrival the fuel will then be transferred by properly trained and certified personnel into a tandem axle fuel truck and delivered to the appropriate on-site tanks. The storage tanks that EGT intends to use will be registered with Environment Canada on the “Federal Identification Registry for Storage Tank Systems” (FIRSTS) database and mobilized to PIN-E empty during the initial project mobilization.

Each tank will be set up in accordance with the “Environmental Code of Practice for Above Ground Storage Tank Systems Containing Petroleum and Allied Petroleum Products Guidelines”. The tanks will be fully certified tanks that meet the CEPA (1999), and the “Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations SOR/2008-197”.

Gasoline for PIN-E will arrive at the site with the initial mobilization barge. Due to the small amount of gasoline required at the PIN-E site, gasoline will be shipped and stored in 205 liter steel drums. The gasoline drums will be individually identifiable, labeled to industry standards and all information necessary for health, safety and environmental purposes will be made available. Appropriate MSDS will be maintained at site. All barrels will be stored in accordance with the land use permit, and labeled with INAC’s

name and EGT's name, stored on pallets in an upright position and banded to said pallets. All fuel storage will be in an area that complies with all applicable regulations and approved by the Departmental Representative. Both EGT and the marine transport company have very specific written barge fuel transfer procedures which will be strictly followed during loading and offloading work. Site storage tanks will be filled to 85% capacity to allow for expansion of fuel as it warms.

All fueling activities will be conducted by properly trained staff, and only those personnel authorized will be permitted to dispense fuel. Fuel usage records will be maintained on-site and will be kept to track individual unit usage as well as task usage.

Fire extinguishers, emergency spill equipment, including appropriate personal protective equipment, a minimum of two fuel pumps, empty drums, and absorbent materials sufficient to cleanup a 1000 liter spill will be positioned at all fuel storage sites. Smoking will be strictly prohibited within 100 meters of this area and No-Smoking signs will be posted. Spill mats or spill trays will be utilized under all mobile fueling containers. All mobile fuel equipment will be equipped with spill kits.

Contractor's fuel storage tanks will be located adjacent to the camp generator building. Fuel storage tanks will be located greater than 30 meters from the closest body of water.

There will be no bulk storage of oils, lubes, antifreeze in containers larger than 45 gallon drums. All will be supplied to site in 45 gallon drums and 5 gallon (22.5 l) pails or smaller containers. All drums will be new.

Propane will be used onsite for the camp facilities and will be stored in 1000 lb. propane tanks and 350 lb. "pig" tanks. Propane for shop use will be supplied in 100 lb. and 20 lb. cylinders.

Tanks, drums and cylinders belonging to EGT will be clearly marked with spray paint and stencils to distinguish them from tanks, drums and cylinders belonging to others on site.

MSDS will be available for all consumable products on site and all EGT personnel will have received WHMIS training. All handling and transport of dangerous goods will be supervised by TDG certified personnel.

Vehicles will be parked over drip trays.

The Equipment Foreman will inspect all fuel storage tanks daily. Wildlife monitors will also be required to conduct daily checks of fuel storage facilities as part of their normal rounds of inspection.

See attached fueling and fuel transfer procedures.

Spill Response

All pick-ups and heavy equipment will carry small “equipment” spill kits. The foreman’s truck, the generator shack, fuel storage tanks and refueling areas will have more substantial “drum” spill kits. All vehicles will carry a small quantity of oil absorbent rags. All mobile equipment will have company frequency “truck-to-truck” radios, as will the EGT site office and the Medic.

All spills will be reported and recorded for internal records. Minor spills will be reported to the Equipment Foreman by radio. The Equipment Foreman will assess the situation, including the potential risks to personnel, will decide on the most appropriate immediate response and will report to the Site Superintendent. This may simply involve applying sorbent pads or shoveling of granular materials into plastic bags for transfer to the PHC soils treatment area for on-site treatment or possibly boxing soils in 2.3 cu. m. sea-cans with hydro-carbon resistant liner.

A larger, more catastrophic spill would result in Emergency Response Procedures. The same emergency radio procedures will apply as for a medical emergency. The person who discovers the spill will use the radio call, “MEDIC! MEDIC! MEDIC!” This will signal all site personnel to cease any other radio use, cease other work and stand by for further direction. The Medic will take charge of all medical emergencies on site, but in this case pass control of the situation to the Equipment Foreman and/or Site Superintendent as soon as the emergency situation has been identified as a fuel spill.

The response to a larger spill may involve allocating heavy equipment and/or allocating personnel to the task. Appropriate PPE for the task will be checked and a Job Safety Analysis. The hazard assessment with reference to the applicable MSDS will be conducted prior to the cleanup effort.

Containment and Recovery

The safety of all personnel will be the first consideration in any containment and recovery operations.

Containment may be performed by hand or with the use of heavy equipment. Sand or soil berms can be constructed and booms can be deployed. Leaks can be plugged using patches, plugs and plugging compounds. Product can be pumped out or suctioned out of leaking containers when applicable.

Recovery of spilled/leaked product could involve pumping, direct suction into vacuum tank on truck or pumping into suck-on tank mounted on the bed truck, shoveling of contaminated soil by hand or with heavy equipment, transfer to portable tanks or drums or to fixed tanks.

As well as a supply of heavy equipment (3 excavators, 2 loaders, 2 cats, 2 rock trucks, 1 body job dump truck, bed truck and pickup trucks) and a ready and plentiful supply of labor, we have at the site considerable other materials and equipment for the purposes of our contract work which could be used for spill containment and recovery. These include: Drum Spill Kits: Polyethylene overpack drum containing 2 ea. 10' socks, 5 ea. 4' socks, 1 lb. pre-mixed plugging compound, 50 pads, 5 pillows, 1 drain cover, 1 caution tape, 2 pairs of nitrile gloves, 2 ea. safety goggles, 2 coveralls, 10 disposal bags.

Equipment Spill Kits: Nylon carry bag containing 1 ea. 10' sock, 30 pads, 1 pillow, 1 lb. pre-mixed plugging compound, 1 lb. dry plugging compound, 1 pr. nitrile gloves.

50 bundles (100 ea.) sorbent pads,
10 polyethylene overpack drums
50 bags floor-dry sorbent
50 2.3 cu. m. wooden 2.3 sea-cans surplus to identified contract needs
50 hydrocarbon resistant sea-can liners surplus to identified contract needs
100 6 mil poly sea-can liners surplus to identified contract needs
Steel garbage sloops
Fuel transfer pumps
Steel barrel wash tray
Empty steel drums
Sorbent booms, shovels, 6 mil poly bags, respirators

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 and the PPE which may be required to handle spills, environmental risks to both ground and waterways, approaches and options to containment and cleanup utilizing the various materials and equipment available onsite, the deployment of booms and other absorbents, the use of spill kits and their contents including the use of plugs and plugging compounds, reporting requirements

Reporting

All fuel spills will be reported and recorded internally.

Spills greater than 100 liters on land and 20 liters on water will be reported to the **NWT/NU Spill Line at 867-920-8130** (NWT/NU Spill Line Fax 867-873-6924). NWT/NU Spill Report Forms will be kept in the Site Superintendent's office.

The Site Superintendent will be responsible for all reporting and incident investigation requirements.

Other useful contact numbers include:

GNU, Environmental Protection		867-975-6000
	(Fax)	867-975-6099
GNU, Water Board		867-360-6338
	(Fax)	867-360-6369
GNWT, Environmental Protection		867-873-7654
	(Fax)	867-873-0221
INAC, Yellowknife		867-669-2500
	(Fax)	867-669-2709
Environment Canada		867-669-4700
	(Fax)	867-873-8185

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FUELING UP EQUIPMENT AND VEHICLES

When approaching fueling station you must first observe the area for any unusual appearances.

- **Fuel on the ground**
- **Hoses and nozzle on the ground**
- **Nozzle torn off hose**
- **Hose torn off pump or tank**

If you notice anything like that, immediately report it to your supervisor, before fueling up.

- **Before you begin fueling procedures shut off engine.**
- **Put drip pan into place.**
- **Clean around fill cap (dust, mud, snow, ice, etc.).**
- **Open filler cap carefully, a vacuum might be present.**
- **If filler cap can't be reached from the ground and you must climb onto the equipment, use extreme caution, especially during adverse conditions (wet, mud, snow and ice. If no steps or platforms are available use an appropriate ladder.**
- **Avoid going up steps or ladder with hose**
- **Turn pump on if so equipped and / or open valve at tank.**
- **Begin fueling, don't leave nozzle unattended. NEVER rely on automatic shut off.**
- **Don't overfill tank leave room for expansion.**
- **When finished reverse procedure.**
- **Use three point contact when ascending or descending.**
- **In case of a spill protect yourself, fuels can cause severe eye and skin irritations, contain the spill if possible, report the spill.**

READ LABELS OR MSDS, in particular FIRST AID MEASURES

- **Make sure pump and / or valves are turned off and hose put back in proper place.**
- **Don't forget to put cap back on**

This Job procedure is to be utilized as a guide only. Worksite practices and/or worksite conditions may necessitate change to the content, or order, of task steps in order to complete the job safely & efficiently.
Common sense should prevail

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FLUID TRANSFER GUIDELINES

Many spills occur during routine fueling, pumping, and other fluid transfer operations. Most of these spills can be avoided by paying attention and taking simple precautions. EGT has developed field-wide fluid transfer guidelines, which are summarized below.

- **Do not operate equipment unless trained by a competent person.**
- **Check all vehicles and equipment. If a leak is apparent, or there are other obvious problems with the equipment; stop the job and have repairs done. Surface liners or drip pans may be used to contain leaks for a short time during critical operations; however, liners are not an acceptable substitute for maintenance.**
- **Park vehicles and equipment away from water bodies, tundra, and wildlife habitat. Do not park on the edges of the pad.**
- **Position equipment so that valves, piping, tanks, etc., are protected from damage by other vehicles or equipment.**
- **Verify that adequate surface liners and absorbents are on hand.**
- **Make sure all equipment is properly grounded.**
- **Inspect hoses, connections, valves, etc., before starting any fluid transfers. Be sure that valves are in proper position and each connection is tightened properly.**
- **Before starting, check all tank and container levels, valves, and vents to prevent overfilling or accidental releases.**
- **Surface liners or drip pans are required under all potential spill points.**
- **Maintain a constant line-of sight with critical components throughout fluid transfer procedure. Be prepared to stop the transfer immediately if you notice any leaks. Do not attempt to fix a leak while fluid is being transferred. Never leave fluid transfer operations unattended. After transfer is complete, continue to take precautions while breaking connections. When finished, check the area for spills. Report all spills immediately to your supervisor and the 24-hour Spill Report Line (867) 920-8130.**

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