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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Defence Construction Canada **Licence No:** _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Associate Project Manager: Phil Warren Tel: 613-998-7288 Fax: 613-998-0468 E-mail: Philip.Warren@dcc-cdc.gc.ca

2. Project Manager: Daniel Paquet Tel: 613-998-9523 Fax: 613-998-1061 E-mail: Daniel.Paquet@dcc-cdc.gc.ca

3. Does the applicant hold the necessary property rights?

The property is under the jurisdiction of Indian and Northern Affairs Canada and the Department of National Defence has a land reserve. A Land Use Permit from Indian and Northern Affairs Canada has been applied for.

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization.

N/A

5. Duration of the Project

[ ]Annual
[✓] Multi Year:
If Multi-Year indicate proposed schedule of on site activities
Start: March 2006 Completion: March 2010

CAMP CLASSIFICATION

6. Type of Camp

[ ] Mobile (self-propelled)
[ ] Temporary
[✓] Seasonally Occupied: summer months only
[ ] Permanent
[ ] Other:_____

7. What is the design population of the camp and the maximum population expected on site at one time? What will be the fluctuations in personnel?

The camp will be able to accommodate up to 60 people, with an average of 50 people on site at a time. Peak time for maximum number of people on site is mid-July to the end of August.

8. Provide history of the site if it has been used in the past.

The site was a former Distant Early Warning (DEW) Line site, which was used from 1955 to 1993 to provide radar surveillance of the northern approaches to the North American air space. In March 1985, Canada and the United States agreed to modernize the North American Air Defence System by closing the 21 remaining DND DEW Line sites and building the North Warning System (NWS). The CAM-5 site was closed in 1992.

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

Please see Section 6 of the Project Description for a description of the biogeographical and geomorphological features, and water bodies.

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

The camp and/or associated storage areas are to be located in areas of previous disturbance to minimize damage to previously undisturbed areas. The exact location of the camp will not be available until the contract has been awarded and the contractor mobilizes to the site.

11. Is the camp or any aspect of the project located on:

[✓] Crown Lands Permit Number (s)/Expiry Date: _____
[ ] Commissioners Lands Permit Number (s)/Expiry Date: _____
[ ] Inuit Owned Lands Permit Number (s)/Expiry Date: _____

A land use permit from Indian and Northern Affairs Canada has been applied for, but has not yet been received.

12. Closest Communities (distance in km):

The closest communities are Hall Beach, located approximately 150 km east of the CAM-5 site and Kugaaruk, located approximately 150 km west of the CAM-5 site.

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

Community meetings were held on April 12 and 14, 2004 in Hall Beach and Kugaaruk, respectively, to discuss the clean up work at CAM-5. The meeting included an information session and a question and answer period. Notes from the meeting are provided in the Project Description. A meeting in Igloolik on April 13 was also planned; however, due to weather conditions, the meeting was cancelled. It is anticipated the Igloolik meeting will be held in December 2005.

14. Will the project have impacts on traditional water use areas used by the nearby communities? Will the project have impacts on local fish and wildlife habitats?

It is not anticipated the project will have any negative impacts on traditional water use in the area, nor will negative impacts to the local fish and wildlife habitats occur. Please refer to Section 7 in the Project Description for a summary of the potential project impacts.

PURPOSE OF THE CAMP

15. . Mining
□ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)
(Omit questions # 16 to 21)
✓ Other - Environmental Cleanup (Omit questions # 16 to 22)

16. . Preliminary site visit
. Prospecting
. Geological mapping
. Geophysical survey
. Diamond drilling

. Reverse circulation drilling
. Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
. Other: _____

N/A

17. Type of deposit:
    . Lead Zinc
    . Diamond
    . Gold
    . Uranium
    . Other: _____

N/A

DRILLING INFORMATION

18. Drilling Activities
    . Land Based drilling
    . Drilling on ice

N/A

19. Describe what will be done with drill cuttings?

N/A

20. Describe what will be done with drill water?

N/A

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

N/A

22. Will any core testing be done on site? Describe.

N/A

SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.

Please see Section 9 of the Project Description.

24. How many spill kits will be on site and where will they be located?

There will be a spill kit provided in each vehicle and piece of equipment. The bulk of the spill kit equipment will be located at the main camp area.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

A variety of fuels and other hazardous materials may be used at the CAM-5 site during clean up. The greatest volumes will likely involve Arctic diesel fuel. Other substances such as acids, solvents, lubricants, hydraulic fluid, antifreeze, fuel additives and engine coolants also pose potential environmental and safety hazards. The Contractor is required to comply with the requirements of Workplace Hazardous Materials Information System (WHMIS), which includes the provision of MSDS information.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Please see Drawing 102 in Appendix A for the location of the existing water supply lakes at CAM-5.

27. Estimated demand (in L/day/person):

- Domestic Use: (200 L/day/person x 50 persons). Water Source: Bagnall Lake or unnamed water suppy lake at the Upper Site
- Other (construction): 40,000 L/day.

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:

Water will be pumped into a truck equipped with a holding tank from the water supply lake and transferred to a tank at the camp area. All water intake hoses will be equipped with screens with a mesh size of 2.5 millimetres or less to prevent the intake of fish, as per the *Freshwater Intake, End-of-Pipe Fish Screen Guidelines*.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

The water sources at CAM-5 will be tested for potability at least once per week. The parameters to be analyzed include: chlorine, sodium, potassium, magnesium, calcium, iron, manganese, conductivity, hardness, nitrate, nitrite, sulphate, pH, total coliforms, and E. Coli.

It is anticipated, however, that commercially bottled water will be supplied for drinking purposes.

30. Will drinking water be treated? How?

If required, drinking water will be treated in accordance with the Health Canada Guidelines for Canadian Drinking Water Quality. Iodine, chlorination and/or thermal heat treatment are common on-site drinking water treatments.

31. Will water be stored on site?

Water will be stored at the camp in a mobile holding tank.

WASTE TREATMENT AND DISPOSAL

32. Describe the characteristics, quantities, treatment and disposal methods for:

- Camp Sewage (blackwater)
Sewage will be discharged into a 2-cell lagoon, and the effluent tested prior to discharge. The remaining settled solids will be buried on-site. The lagoon will be located a minimum of 100 metres away from the camp and any natural drainage course or water body, and any water body that supports aquatic life.

- Camp Greywater
Greywater from camp operations is typically discharged into the sewage lagoon and will be treated in the same manner as described above.

- Solid Waste
Domestic and other non-hazardous waste will be incinerated and the residue will be buried in the Non-Hazardous Waste Landfill.

- Bulky Items/Scrap Metal

All excess fuels, camp equipment and facilities will be removed from the site after the completion of the clean up activities. Scrap metal will be crushed and buried in the Non-Hazardous Waste Landfill.

. Waste Oil/Hazardous Waste
It is not anticipated that the clean up activities will generate any hazardous wastes. Hazardous wastes already existing at the site will be dealt with according to Section 5.13 and 5.14 of the Project Description during the overall site clean up.

. Empty Barrels/Fuel Drums
Empty barrels and fuel drums will be disposed of as described in Section 5.11 of the Project Description during the overall site clean up.

. Other:

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33. Please describe incineration system if used on site. What types of wastes will be incinerated?

Domestic, non-hazardous solid wastes will be incinerated in an enclosed container. The container will be located at least 100 metres away from the camp, any site facilities, natural water courses or water bodies. A fire extinguisher will be provided at the incineration site.

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

Non-combustible, non-hazardous solid wastes will be buried in the Non-Hazardous Waste Landfill.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for sumps (if applicable).

N/A

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

The newly constructed Tier II Disposal Facility is been designed so that no leachate is produced. The Non-Hazardous Waste Landfill does not contain any wastes that would produce leachate. Monitoring of all on-site landfills for the presence of leachate is conducted as part of the Landfill Monitoring Program, which is updated upon completion of the site clean up and continues for a period of 25 years. Details of the landfill monitoring are in Section 11.0 of the Project Description.

OPERATION AND MAINTENANCE

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

The water supply and treatment systems have been used during the cleanup of 9 DEW Line sites that are completed, and are currently being used during the clean up of another 6 DEW Line sites. No outstanding problems were discovered during the clean up of these sites. Contingency plans for fuel and hazardous material spills, wildlife encounters and discovery of heritage resources are provided in the Environmental Protection Plan in Section 8.0 and the Spill Contingency Plan in Section 9.0 of the Project Description.

ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

The aim of the DEW Line Clean Up Project is to decommission the former DEW Line sites as they are no longer required by the Department of National Defence and to restore the sites to an environmentally sound condition.

Site decommissioning activities, when the clean up is completed, will involve the demobilization of all contractor equipment, camp infrastructure, and materials. The requirement for the contractor to undertake these decommissioning activities is a contractual obligation written into the project specifications. Further details on the final abandonment and restoration activities are provided in Section 10.0 of the Project Description.

BASELINE DATA

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- Physical Environment (Landscape and Terrain, Air, Water, etc.)
- Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- Socio-Economic Environment (Archaeology, Land and Resources Use, Demographics, Social and Culture Patterns, etc.)
- Other:

Baseline information was collected as part of this project. Please see Section 12.0 of the Project Description for the list of references. No further baseline information will be collected.

REGULATORY INFORMATION

40. Do you have a copy of

✓ Article 13 - Nunavut Land Claims Agreement
✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
✓ NWTWB - Guidelines for Contingency Planning
✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline Fisheries Act - s.35
✓ RWED - Environment Protection- Spill Contingency Regulations
✓ Canadian Drinking Water Quality Guidelines
✓ Public Health Act Camp Sanitation Regulations
✓ Public Health Act Water Supply Regulations
✓ Territorial Land Use Act and Regulations

You should consult the above document, guidelines, and legislation for compliance with existing regulatory requirements.