P.O. BOX 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP
SUPPLEMENTARY QUESTIONNAIRE

Applicant: PIN-3 LRR Station, Lady Franklin Point - Department of National Defence

Licence No: _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: **David Haddon** Tel:**613-949-6902** Fax: **613-949-6926** E-mail: **David.Haddon@dcc-cdc.gc.ca**

2. Project Manager: **Rodney Watson** Tel: **613-945-7720** E-mail**: Rodney.Watson@forces.gc.ca**

3. Does the applicant hold the necessary property rights? **Yes**

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? **No** If so, please provide letter of authorization.

5. Duration of the Project
   - ☐ One year or less — Start and completion dates:
   - ☑ Multi Year:

   If Multi-Year indicate proposed schedule of on site activities

   Work Camp
   Start: January 2010 **Completion: January 2012**

   LLR Station, initial operational capability
   Start: Post January 2012 **Decommissioning: The station has no plans for decommissioning. However, it will operate year-round, unmanned. There will be occasional visits by personnel for maintenance only.**

CAMP CLASSIFICATION

6. Type of Camp
   - ☐ Mobile (self-propelled)
   - ✓ **Temporary**
   - ✓ **Seasonally Occupied**
   - ☐ Permanent
   - ☐ Other:_____

7. What is the design, maximum and expected average population of the camp?

The design and maximum expected number of workers at the work camp is approximately 30 people.

There will be 30 workers housed at the camp during the construction season of approximately 120days per year over a 3 year period (maximum).

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

The PIN-3 Long Range Radar (LRR) Station at Lady Franklin Point was originally constructed in the late 1950's and was upgraded in the mid 1980's. In 2000, the main interconnected structures of the PIN-3 station suffered extensive fire damage. The radar tower, powerhouse and some modular units were destroyed.

After the fire, environmental clean-up work was required. Ash plume deposits were collected and stockpiled in an engineered facility in May 2000. Stockpiled deposits, debris as well as contaminated soil were removed in 2003. The area where the destroyed buildings one stood now consists of a gravel pad.

The current project involves the construction and operation of a new radar tower, communication shelter, accommodation and utility building trains, two independent power plants and associated infrastructure in order to return the station to its full pre-fire operational capability. The existing vehicle refueling station does not meet current code requirements and is to be demolished and replaced as a part of this project. The site's electrical grounding system was badly damaged during site cleanup so new electrical grounding and distribution systems will be installed. Construction is anticipated to begin in summer 2010 and be complete in fall 2012.

The new facilities will be constructed in approximately the same locations as the damaged structures.

CAMP LOCATION

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

The PIN-3 LRR site is located at approximately 68°28'31" N, 113°13'22" W. The site occupies 6 km² at the western extremity of a 4 km wide peninsula which extends 11 km west-southwest from Victoria Island into the Dolphin and Union Straight. The new facilities are to be constructed in the approximate same location as the former facilities at the Station Area. Map sheet no: 87A (1:250,000)

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 location was selected to make best use of exiting facilities at the site and minimize potential environmental effects. The camp will be completely contained within the foot print of the PIN 3 LRR site. Sewage lagoons, borrow areas and beaching areas will be limited to areas previously used for those purposes as much as possible. Please see Figure 1 for a photo of existing site locations.

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

✓	Crown Lands	Permit Number (s)/Expiry Date: (Land Use Permit Pending)
☐	Commissioners Lands	Permit Number (s)/Expiry Date:
☐	Inuit Owned Lands	Permit Number (s)/Expiry Date:

12. Closest Communities (direction and distance in km):

The nearest community is Kugluktuk, located 115 km southwest on the main land. Cambridge Bay, is located on Victoria Island, approximately 325 km to the east.

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

To date, no consultations have taken place with nearby communities or other parties about the proposed work. DND is investigating holding consultations or information sessions in summer 2009 or 2010, after the design consultant is selected for the project.

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?

The project is not expected to have negative impacts on traditional water use areas or local fish and wildlife habitats.

PURPOSE OF THE CAMP

15.
- ☐ Mining (includes exploration drilling)
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- ☑ Other **The camp will serve as temporary accommodation for workers during the reconstruction of the PIN-3 LLR station.**

16. Activities (check all applicable)

- ☐ Preliminary site visit
- ☐ Prospecting
- ☐ Geological mapping
- ☐ Geophysical survey
- ☐ Diamond drilling
- ☐ Reverse circulation drilling
- ☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- ✓ Other: **Construction**

17. Type of deposit (exploration focus): **N/A**

- ☐ Lead Zinc
- ☐ Diamond
- ☐ Gold
- ☐ Uranium
- ☐ Other: _____

DRILLING INFORMATION N/A

18. Drilling Activities

- ☐ Land Based drilling
- ☐ Drilling on ice

19. Describe what will be done with drill cuttings?

20. Describe what will be done with drill water?

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.

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

SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

For DND contracts, spill contingency plans are the responsible of the contractors. A generic Spill Contingency Plan will be developed by the successful camp and/or construction contractors following award of the contract. It will be reviewed by DND and DCC, then submitted to NWB to supplement this application. Specifications of the spill contingency plan will be in accordance with the stated laws, regulations and standards and any existing spill contingency plan for the site.

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

The spill contingency plan will identify the number of spill kits on site and their location. It will be provided when completed by the contractors..

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

Construction Phase (estimated amounts are based on 9-months of construction over a 3-year period)

Fuel	Number of Containers and Capacity of Containers (in Litres)	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel for construction power and heating	Please see explanation below.		
Gasoline			
Aviation fuel (JP4/JP5)			

The contractor will have access to the fuel stored in the site's existing fuel storage and distribution infrastructure. This includes:

- **"Beach" fuel tanks:**
  - **Four (4) 91,000 litre tanks,**
  - **These tanks serve as the initial delivery area when fuel is delivered to the site by barge.**
- **"Upper Site" Fuel Tanks:**
  - **Four (4) 91,000 litre diesel tanks (summit fuel tanks);**
  - **Two (2) 75,000 litre PGS tanks (day fuel tanks); and**
  - **One (1) 75,000 litre aviation tank**
  - **Fuel is transferred to these tanks from the Beach Tanks via approximately two (2) kilometres of 2 inch pipe (above ground single walled).**

The contractor may require some gasoline for ATVs, small construction equipment, Etc. Any contractor-supplied fuel will be stored in approved safety cans bearing the Underwriter's Laboratory of Canada or Factory Mutual seal of approval. All personnel will comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding employee training, use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Material Safety Data Sheets (MSDS) as required by WHMIS legislation. Details on volumes will be made available by DND once the construction contractor is selected.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Estimated average water usage of 190 L per person per day, and a 30 person construction camp.

Daily amount (m^3)	Proposed water retrieval methods	Proposed water retrieval location
Potable water requirements: 5.7 m^3	**Using a water truck and pump. Water storage will be located at the camp site.**	**Water will be drawn from a supply lake located to the northwest of the PIN-3 site.**

27. Estimated water use (in cubic metres/day): **5.7 m^3**

☑ Domestic Use: **Potable water** Water Source: **Supply lake located to the northwest of the PIN-3 site**

☐ Drilling: _____ Water Source: _____

☐ Other:

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

Water will be transferred to the site via a truck and pump. The water intake pipe equipped with a small mesh screen (2.5 mm or less) to remove any debris that may be present in the water, and to prevent any fish from being trapped.

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

Drinking water drawn from the stream will be tested for quality, including standard bacterial health quality. This has been the practice in previous years at the site. We propose to use the same source of water that has been used for at least the past seven (7) years at the site.

30. Will drinking water be treated? How?

Yes, exact treatment will be determined, but will most likely include a particulate screen, carbon filter, and UV treatment.

31. Will water be stored on site?

Water will be stored on site using a storage tank that will be fed by a water truck and pump, large enough to sustain 30 people during the construction phase of the project. Domestic water will be drawn form the water tank for use at the camp using electric pumps.

WASTE TREATMENT AND DISPOSAL

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

Construction Phase (Sewage and greywater amounts are based on an estimated average water usage of 190 L per person per day, and a 30 person construction camp)

Type of waste	Projected amount generated	Method of Disposal	Additional treatment procedures
Sewage (black-water, greywater and human waste)	**5.6 m^3/day**	**Sewage waste treatment plant, and lagoon**	**Sludge will be disposed off site.**
Combustible wastes	**60 m^3**	**Incineration**	**Residue from incinerator will be transported off site**
Non-Combustible wastes	**15 m^3**	**Off-site**	
Overburden (organic soil, waste material, tailings)	**N/A**	**N/A**	
Hazardous waste	**0.6 m3**	**Off-site**	
Contaminated Soils	**N/A**	**N/A**	**It is expected that all contaminated soils will be rehabilitated.**

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

Non-combustible solid waste generated from the camp operations will be stored in a secure waste disposal bin. It is estimated that the contents of the waste disposal bin will be transported by vessel to off-site facilities.

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

Not applicable.

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

As a minimum, the camp sewage will be directed to a combination of treatment plant and lagoon situated at approximately 100 metres from the camp. This lagoon shall be located at least 100 metres from any natural drainage course and water bodies that support aquatic life. The sewage lagoons will be sized to provide an individual capacity for approximately one half of the duration of the construction season. The maximum fluid depth shall not exceed one metre. The sewage effluent will be tested prior to discharge for the following parameters: Biological Oxygen Demand, Total Suspended Solids, Oil & Grease; Fecal Coliforms and pH. Greywater from camp operations will also be discharged into the sewage lagoon.

Domestic garbage will be incinerated in an enclosed container (we assume this will typically be a forced-air incinerator) and the residual waste transported to off-site facilities. Any hazardous wastes encountered during the construction and operationof the PIN-3 LRR will be packaged and stored according to Transport of Dangerous Goods Regulations prior to shipment to a southern disposal facility. Waste oil, in this case, is included as hazardous waste and will be treated as such in the waste manaegemnt plan.

OPERATION AND MAINTENANCE

36. 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?

Water supply and waste disposal methods have been used by industry in the past at this site, and have proven to work in these cold climates.

ABANDONMENT AND RESTORATION

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

Decommissioning of the work camp for the PIN-3 LRR will occur in approximately 2012. The work camp, located on federally owned and administered land, including the temporary shelters, will be transported back to the appropriate originating facilities outside of Nunavut upon decommissioning.

BASELINE DATA

38. 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: _____

Bibliographic reference:

- **DCC, October 2007. Draft Statement of Operational Requirement- Infrastructure (SOR(I)) PIN-3 Lady Franklin Point, Nunavut, Long Range Radar Construction, North Warning System, Project No. 00000822**

- **· Golder Associates, January 2007. Archaeological Impact Assessment (AIA) of the PIN-3 Reconstruction at Lady Franklin Point, Victoria Island, Nunavut (DCC Project HN 0320), File 05-133-092**
- **· UMA Engineering Ltd, September 2006. Defence Construction (1951) Ltd. Environmental Protection Plan, CAM-1, Jenny Lind Island, DEW Line Site**
- **· ESG, June 2004. PIN-3, Lady Franklin Point, Nunavut Site Remediation phase 2 : Confirmatory sampling 2003.**
- **· JWA, February 2004. Final Report on Archaeological Mitigation Study at PIN-3, Lady Franklin Point, Victoria Island, Nunavut, Project ONO50572.**
- **· ESG, February 2003. PIN-3, Lady Franklin Point, Nunavut Site Remediation phase 2 : Confirmatory sampling 2002.**
- **· ESG, April 2002. PIN-3, Lady Franklin Point, Nunavut Site Investigation, 2000-2001.**
- **· WESA, July 2000. Emergency Environmental Clean-Up PIIN-3 Radar Site, Territory of Nunavut.**
- **· ESG, March 2000. Environmental Investigation Lady Franklin Point, PIN-3 Fire 2000**
- **· ESG, November 1994. Environmental Screening Report for the Cleanup of 21 DEW Line Sites, chapter IX – Lady Franklin Point, PIN-3.**
- **· UMA Engineering Ltd, June 1991. Environmental Clean-Up of 21 DEW Line Sites in Canada, Volume 10, PIN-3, Lady Franklin Point, NWT.**

REGULATORY INFORMATION

39. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ✓ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ✓ NWNSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ✓ *Northwest Territories Waters Regulations, 1993*
- ✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ✓ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ✓ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ✓ NWTWB - Guidelines for Contingency Planning
- ✓ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ✓ *Fisheries Act, RS 1985* - s.34, 35, 36 and 37
- ✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ✓ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ✓ Public Health Act - Camp Sanitation Regulations
- ✓ Public Health Act - Water Supply Regulations
- ✓ *Territorial Lands Act* and *Territorial Land Use Regulations*; Updated 2000

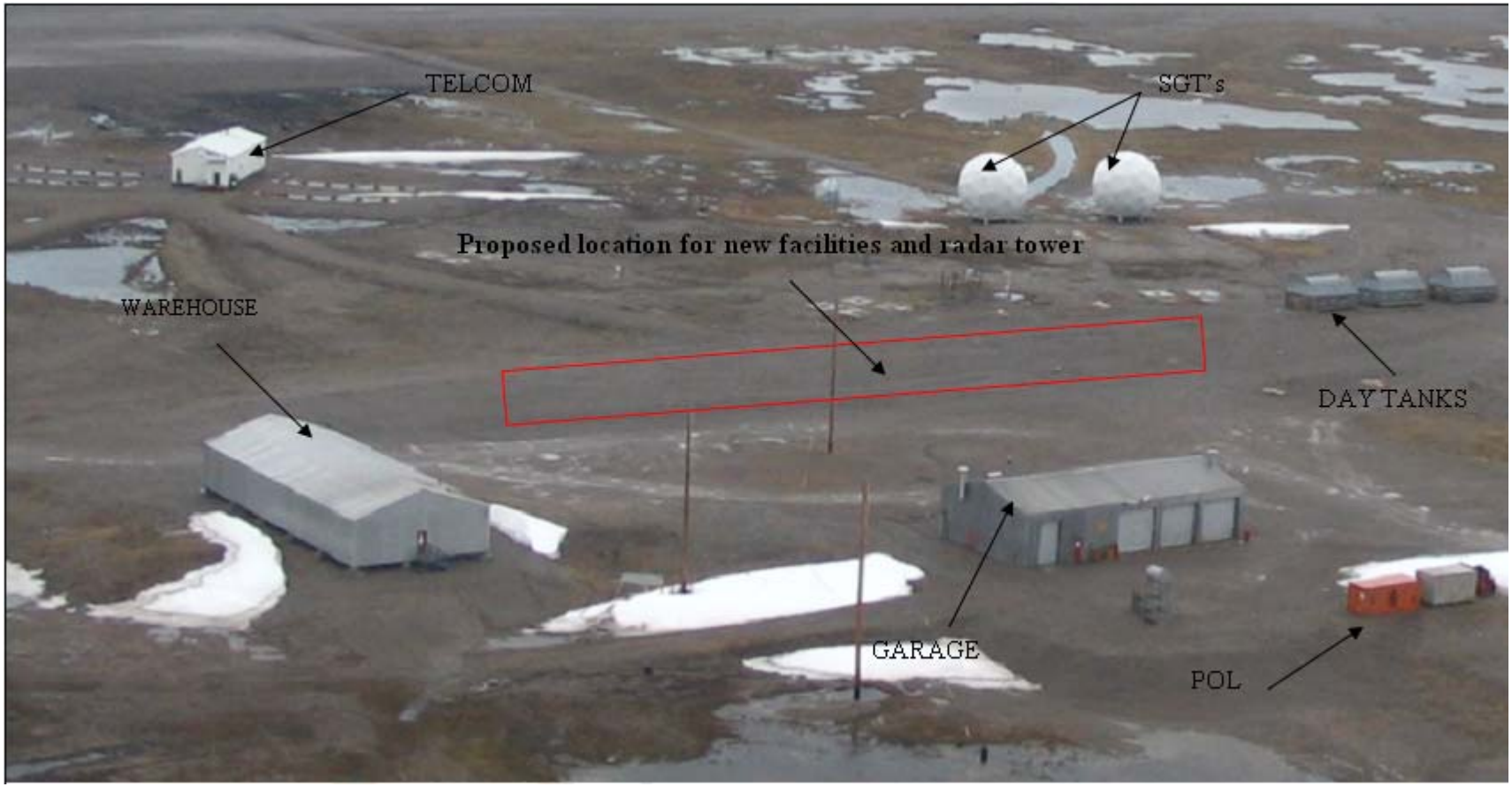

Figure 1 Existing Infrastructures and Proposed Location of New Facilities (Source: DCC, October 2007