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Nunavut Regional Office  
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Date March 6, 2006

Nunavut Water Board  
P.O Box 119  
Gjoa Haven, NU X0B 1J0

NWB File No. 1BR-mAC

Re: CAM-F Water Use Application

Dear Ms. Gagne;

The following information is provided in response to NWB letter "Guidelines for Applicant, Application for CAM-F (Sarcpa Lake) Intermediate DEW Line Clean Up" dated February 16, 2006.

1. The Applicant shall provide detailed design plans prepared by a qualified engineer complete with stamped/signed drawings and plans for construction for all facilities pertaining to the use of water or disposal of waste, including but not limited to:

a. Sewage treatment;

#### RESPONSE

Attached please find the signed drawing entitled "Sewage Discharge Sump, Figure 1", Contingency Plan Sewage Sump Figure 2" and Contingency Plan Sewage Lagoons, Figure 3".

b. Waste processing area;

#### RESPONSE

Attached please find the signed drawing entitled "Details, Waste Processing Area, Figure 5".

- The water treatment plant shall be included as a component of this process

#### RESPONSE

The water treatment plant has been referenced as being a component of this process and is shown on the drawing entitled "Figure 9: Details of the Mobile Water Treatment Unit".

- c. Secondary containment for fuel storage.

#### RESPONSE

Attached please find the signed drawing entitled “Construction Layout, Fuel Storage, Figure 7” and “Cross Section, Fuel Storage Capacity, Figure 8”.

- 2. The Applicant shall provide justification for the Wastewater Discharge Criteria in Section 01561 Section 5.1 in the project specifications compared to existing Northern standards and national standards, for example the Canadian Council of Ministers of the Environment (CCME), *Canadian Environmental Quality Guidelines*.

#### RESPONSE

The CAM-3 DEW Line Site, at Shepherd Bay, Licence (Licence Number NWB5SHE0510 signed February 17, 2005) sewage effluent targets were referenced for this project. Requirements and expectations upon the Department of National Defence (DND) DEW line site clean-up projects are frequently made while establishing Indian and Northern Affairs Canada (INAC) remediation project targets. DND has a long history of having established publicly and regulatory acceptable targets. As well, adoption of the DND criteria was foreseen as a way to simplify the approvals process.

In order to help ensure compliance to the proposed effluent requirements the project proposes a more advanced technology than that required at CAM-3.

The report “Best Available Technology for Sewage Treatment in the North (July 2003) by Feguson, Simek Clark (ISBN 0-662-34746-3) identifies four considerations when selecting a technology

- a. The effluent quality required. The quality was established through the precedent discussed above.
- b. Availability of land. The chosen technology satisfactorily balanced the availability of land and the desired “footprint” and control of the sewage treatment process
- c. Sustained access to trained operators. The manufacturer will be on site to set up the treatment plant. Biogenie already has people trained to operate this unit. This equipment may provide a potential training opportunity for Inuit in the region.
- d. Cost to build and operate the process. While the process may be slightly more expensive to build than the minimum process, the additional costs were seen to be of value in ensuring expectations were met.

It is hoped that the project’s pro-activity in sewage treatment technology does not result in the project being penalized through implementation of more stringent effluent requirements in the licence.

The justification for the wastewater criteria will follow under separate cover.

3. The Applicant should confirm and document the requirements of the Government of Nunavut, Department of the Environment (GN-DOE) for:

- the storage, shipping and overall management of hazardous wastes.

RESPONSE:

A discussion was held with Robert Eno, Manager Pollution Control, on February 22, 2006. During that time it was confirmed that INAC does have a waste generator number ( NVG 100008). It was also understood that INAC is responsible for ensuring contractors hired for the shipping and receiving of hazardous wastes, are responsible. The existence of project spill and emergency response plans was discussed as was the need to be prepared to deal with emergencies. Storage of hazardous wastes for more than 180 days requires the project to have a registered storage facility under Nunavut guidelines.

- Contact information for GN-DOE,

RESPONSE:

Robert Eno  
Manager, Pollution Control  
Environnemental Protection Service  
Department of Environment  
Government of Nunavut  
Iqaluit, NU  
867-975-7748

- References to existing GN-DOE Guidelines should also be provided.

RESPONSE:

The following references were provided by GN- DOE

Guidelines in hard Copy and Disc

- NWT Environmental Guideline for Waste Batteries
- NWT Environmental Guideline for Dust Suppression
- NWT Environmental Guideline for Site Remediation
- NWT Environmental Guideline for General Management of hazardous Wastes
- NWT Environmental Guideline for Waste Solvents
- NWT Consolidation of R.R.N.W.T. 1990, c. E-23 Asphalt Paving Industry Emission Regulations
- Consolidation of the Environmental Protection Act R.S.N.W.T., 1988, c. E-7 As amended
- Consolidation of the Environmental Rights Act R. SNWT 1988, c. 83 (2<sup>nd</sup>. Supp)
- Consolidation of the Pesticide Act, R.S.N.W.T. 1988, c.P-4
- Consolidation of regulation *R.R.N.W.T. 1990, c. P-2 Pesticide Regulations* (Dated 15 July, 1992) As amended:
- Government of Nunavut Simplified Environmental Protection Act
- Consolidation of regulation R-068-93 Spill Contingency Planning and Reporting Regulations (Dated 22 July, 1993) As amended:
- Contingency Planning and Spill Reporting In Nunavut –A Guide to the new regulations

## Guidelines on Disc

- Guideline :Air Quality –Sulphur Dioxide and Suspended Particulates AS AMENDED:
- Guideline :Contaminated Site Remediation As amended:
- Guideline : Industrial Waste Discharges in Nunavut As amended:
- Environmental Information Guide for Industrial Projects on Commissioner's Lands
- Guideline : Management of Ozone Depleting Substances As amended
- Guideline for Management of Waste Lead and Lead Paint
- Disposal Guidelines for Fluorescent Lamp Tubes
- Municipal Solid Wastes Suitable for Burning

The references are being forwarded to PWGSC and to Biogenie for implementation, as appropriate, in the project work plan

4. The Applicant shall provide a Monitoring Plan encompassing all site activities relating to impacts to water and disposal of waste. The plan shall also include confirmatory sampling proposed to assess the effectiveness of completed remediation and long-term monitoring.

## RESPONSE

### Operational Monitoring

Please see attached Table 1 "CAM-F Analytical Chemistry and Microbiology Sample Plan and Table 2 "CAM-F Analytical Chemistry and Microbiology Quality Assurance, Quality Control (QA/QC) Plan".

### Site confirmatory monitoring plans and QA/QC Process

A consultant with experience in the DND clean-ups has been hired to develop a plan specific to the INAC projects. References to be used in the development of the protocol include the DND DEW Line Cleanup and DIAND Resolution Island Confirmatory Sampling Protocols.

This plan will become a contractual issue. Additional information will be provided once the plan has been completed.

### Long-Term Monitoring Protocol and QA/QC Process:

The long term monitoring plan anticipates sampling and visual inspection of the site in each of the first 5 years after project completion , and also in years 7, 10, 15 20 and 25.

Again, the DND DEW Line Cleanup and Resolution Island projects have existing Long-Term Monitoring Protocols that will be used to develop the most applicable monitoring plan and QA/QC process for the DIAND DEW line sites. This will ensure a degree of consistency across the program and while taking the uniqueness of these sites into account. This plan will not be finalized until the remediation project is more advanced and the monitoring needs better understood.

5. If you have any questions or require clarification, technical staff are available to discuss these guidelines.

RESPONSE: The project spoke to Sara Gagne on February 24, who provided guidance on NWB needs and potential solutions to resolving problems.

If you have any questions or comments regarding this project, please do not hesitate to contact the Project Manager, Bob Martin at [martinro@inac.gc.ca](mailto:martinro@inac.gc.ca), or by telephone at (867) 979-7931.

Sincerely,

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Attachments