



Our reference
File #9545-2-1.1BR.SIMA
CIDMS #389682

February 15, 2010

Your reference
1BR-SIM0813

Ida Porter
Licensing Administrative Assistant
Nunavut Water Board
Gjoa Haven, Nunavut
X0E 1J0

Sent Via Email

Dear Ida,

**Subject Water License #1BR-SIM0813, Indian and Northern Affairs
Canada – Contaminated Sites Division, CAM-D (Simpson Lake)
Remediation Project, Kitikmeot Region, Amendment
Application**

Please be advised that on behalf of Indian and Northern Affairs Canada, I have completed a review of the above referenced Indian and Northern Affairs Canada – Contaminated Sites Division submission to the Nunavut Water Board.

A Technical Review Memorandum (attached) is provided to the Board for consideration.

Should you have any questions regarding this submission, feel free to contact me at 867 975-4555 or david.abernethy@inac-ainc.gc.ca.

Regards,

David W. Abernethy
Water Resources Regional Coordinator
Operations Directorate, Nunavut Regional Office
Indian and Northern Affairs Canada
Iqaluit, Nunavut
X0A 0H0

Attached.

Cc: Lou-Ann Cornacchio, INAC Water Resources Division Manager
Natalie Plato, INAC Contaminated Sites Division Manager
Peter Kusugak, INAC Field Operations Division Manager

TECHNICAL REVIEW MEMORANDUM

Date: Feb. 15/10

To: Ida Porter, Nunavut Water Board

From: David Abernethy, Indian and Northern Affairs Canada

Re: **Water License #1BR-SIM0813, Indian and Northern Affairs Canada – Contaminated Sites Division, CAM-D (Simpson Lake) Remediation Project, Kitikmeot Region, Amendment Application**

A. PROJECT DESCRIPTION

On Jan. 6/10 the Nunavut Water Board (NWB or Board) distributed the above-referenced Indian and Northern Affairs Canada – Contaminated Sites Division (INAC-CSD) application for amendment to license #1BR-SIM0813. The NWB distributed this submission to interested parties for review.

The requested amendment would allow for (1) a change in the proposed camp location from the Upper Station Area to the Borrow Area #2, (2) a change in the camp water source from Freshwater Lake/Simpson Lake to an unnamed tributary of the Murchison River, (3) a change in the proposed Sewage Treatment Facility from a two-stage lagoon system to a Wastewater Treatment Plant, and (4) the inclusion of a small camp at CAM-3, Shepherd Bay, to facilitate the winter mobilization and demobilization of equipment, material, and consumables. These changes would necessitate amendments to Part C, Item #1 (location of water source), Part D, Item #6 (type of sewage treatment), and Part K, Item #1 (location of monitoring points) of the license.

B. RESULTS OF REVIEW

Indian and Northern Affairs Canada – Water Resources Division (INAC-WRD) provides the following comments / recommendations to the Board for consideration,

1. License Amendment

It is my opinion that the changes proposed by INAC-CSD for the CAM-D (Simpson Lake) Remediation Project will not result in any increased detrimental impact to the integrity of freshwater sources in the project area if approved.

2. Project Specific Topographic Map

INAC-CSD should submit a topographic map of the project area (scaled to an appropriate size) that identifies all licensed facilities and monitoring program stations, and allows for an understanding of any watersheds that can be affected by this undertaking. The maps included in the license amendment application do not provide this information.

3. Spill Contingency Planning, INAC Field Operations Division Contact Information

INAC-CSD should revise their Spill Contingency Plan to include a single INAC-Field Operations Division contact for spill reporting purposes. This should be Peter Kusugak, Manager of Field Operations. Peter can be reached by telephone at 867 975-4285, facsimile at 867 979-6445, and email at peter.kusugak@inac-ainc.gc.ca. Please note that this spill reporting procedure is consistent with Part I, Item #6 of the license.

4. Operation and Maintenance (O&M) Manual Specific to License Facilities

At the time of license issuance, Dec. 2/08, INAC-CSD was required by Part E, Item #2 of the license to submit an O&M Manual to the Board for approval within 90 days (by Mar. 2/09). This Manual was to include “construction engineer drawings signed and stamped by an engineer to encompass facilities being operated at the site including the Sewage Disposal Facility, Solid Waste Disposal Facility, and Waste Handling Facility.” Furthermore, the Part E, Item #3 and #4 license requirements were to be addressed in this submission.

The submitted license amendment application included an O&M Manual specific to the proposed Bionest Kodiak sewage treatment plant and an Environmental Protection Plan; however, a comprehensive O&M Manual that satisfies the above-referenced license requirements remains outstanding

5. Sludge Management Procedures for the Proposed Wastewater Treatment Plant

The Oct. 14/09 letter from F. Bourassa of Kudlik Construction Ltd., on behalf of INAC-CSD, to D. Hohnstein of the NWB states, *“as indicated in the maintenance manual, a lined lagoon will be built nearby the treatment plant. This lagoon will be used to contain waste in the event that the treatment plant must be temporarily shut down. The lagoon will be designed to contain the camp waste water during a complete week, which represents about 45,000 litres. This lagoon will also be used to treat the sludge removed from the unit, as explained in the shut down procedure. According to the analytical results, the sludge will be disposed into*

the project landfill or containerized and shipped out to the appropriate treatment facility.”

Having reviewed the submitted “Bionest Kodiak Operator’s Manual, CAM-D Simpson Lake Site” and all other documentation submitted as part of the application for license amendment I cannot find any reference of this lined lagoon or its operational procedures. If INAC-CSD’s license amendment application is approved they must ensure that the operation and maintenance procedures for this component of the proposed Wastewater Treatment Plant are addressed in the project’s O&M Manual. The criteria used to determine whether sludge will be disposed into the project landfill or directed to an appropriate treatment facility should be provided.

6. Disposal of Incineration Ash

The project’s Nov. 2009 Work Methodology Plan, Oct. 2009 Environmental Protection Plan, and Supplementary Questionnaire, state that recovered incinerator ash will be disposed according to analytical results. These plans and with the project’s O&M Manual should include the criteria that will be used to determine how this ash will be managed and disposal locations.

7. Detailed Designs for Licensed Facilities

According to the submitted “Remediation of CAM-D DEW Line Site Work Schedule,” the proposed Wastewater Treatment Plant, Solid Waste Disposal Facility, and Waste Handling Facility will be commissioned in the 2010 work season. Part H, Item #1 of the License requires INAC-CSD to “provide to the Board for review, prior to construction, detailed designs for these facilities, complete with drawings for construction, signed and stamped by an Engineer. These designs shall consider siting, operation, monitoring, sampling and analytical methods, decommissioning and closure options and plans.” Based on my review of information provided by INAC-CSD to date, these requirements have not been met. INAC-CSD should be reminded that this License requirement must be satisfied.

8. Quality Assurance / Quality Control (QA/QC) Plan

Part K, Item #9 of the License required INAC-CSD to submit to a QA/QC Plan to an Analyst (as defined in the License) for approval ninety (90) days prior to the release of any effluent. Based on my review of information provided by INAC-CSD to date, this requirement has not been met. For the project to commence in June, this must be submitted by the beginning of March. Considering that the upcoming work season is planned to begin in June, INAC-CSD should be reminded that they must be prompt in fulfilling this license requirement.

9. License' Monitoring Plan

Part K, Item #12 of the License states, *"The Licensee shall submit to the Board for approval within ninety (90) days of issuance of this License a Monitoring Plan. This Monitoring Plan in addition to the monitoring program shall contain a section discussing whether monitoring wells should be installed upstream and downstream of the Non-Hazardous Waste Disposal Facility."*

Based on my review of information provided by INAC-CSD to date, this requirement has not been met. It should be satisfied before the startup of the upcoming work season.

Prepared by David Abernethy

Cc: Lou-Ann Cornacchio, INAC Water Resources Division Manager
Natalie Plato, INAC Contaminated Sites Division Manager
Peter Kusugak, INAC Field Operations Manager