



November 5, 2010

Our reference
File #9545-2-1.1BR.SIMA
CIDM #433792

Sent by email: iporter@nunavutwaterboard.org

Your reference
1BR-SIM0813/TR/E2

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

Re: Nunavut Water Board License #1BR-SIM0813, Indian and Northern Affairs Canada – Contaminated Sites Division, CAM-D (Simpson Lake) Environmental Site Remediation Project, Kitikmeot Region, Submission of Operations and Maintenance Manual for Waste Management Facilities

Dear Ida,

Thank you for your October 6, 2010 request for written representations on the above referenced Operations and Maintenance Manual for Waste Management Facilities.

A Technical Review Memorandum is provided for the Board's consideration.

Please do not hesitate to contact me by telephone at 867 975-4555 or email at david.abernethy@inac-ainc.gc.ca to discuss this submission.

Regards,

David Abernethy
Water Resources Regional Coordinator
Operations Directorate
Nunavut Regional Office
Iqaluit, Nunavut
X0A 0H0

Encl.

c.c.: L.A. Cornacchio, Water Resources Manager
P. Kusugak, Field Operations Manager

Technical Review Memorandum

TO Ida Porter
Licensing Administrative Assistant
Nunavut Water Board

OUR REFERENCE
File #9545-2-2.1BR.SIMA
CIDM #433792

FROM David Abernethy
Water Resources Regional Coordinator
Indian and Northern Affairs Canada

YOUR REFERENCE
1BR-SIM0813

DATE
November 5, 2010

SUBJECT **Nunavut Water Board License #1BR-SIM0813, Indian and Northern Affairs Canada – Contaminated Sites Division, CAM-D (Simpson Lake) Environmental Site Remediation Project, Kitikmeot Region, Submission of Operations and Maintenance Manual for Waste Management Facilities**

A. PROJECT DESCRIPTION

On Oct. 6/10 the Nunavut Water Board (NWB or Board) provided notification of an Operations and Maintenance Manual for Waste Management Facilities at the CAM-D Environmental Site Remediation Project that was submitted by Indian and Northern Affairs Canada – Contaminated Sites Division (INAC-CSD) pursuant to Part E: Conditions Applying to the Undertaking, Item #2 of their water licence. Interested parties were requested to review this submission and provide written representations by Nov. 6/10.

B. RESULTS OF REVIEW

On behalf of the Indian and Northern Affairs Canada Water Resources Division I am providing the following comments / recommendations for the Board's consideration,

1. Monitoring Program Requirements

The submitted plan should be revised to reference all of the water licence monitoring program provisions applicable to the project's waste management facilities and describe how they are being satisfied. This includes the monitoring of effluent at the sewage treatment plant and the non-hazardous waste landfill final discharge points.

2. Map

The maps and pictures included in the submitted manual allow for a general understanding of the project area but do not provide sufficient detail. Topographic maps, set to an appropriate scale, which identify as a minimum, site infrastructure, monitoring program stations, nearby water bodies, and elevations should be included in a revised manual.

3. Waste Management Facility Drawings

The drawings included in Appendix 2 of the manual, titled “Non-hazardous Waste Landfill Plan” and “Non-hazardous Waste Landfill Sections” prepared by UMA|AECOM are difficult to read. INAC-CSD should replace these drawings with original electronic copies and include any other applicable drawings (e.g., as-built drawings for the two (2) sewage lagoons).

INAC-CSD should be reminded that they must satisfy Part H: Conditions Applying to Construction and Modification, Item #s 1 and 2 of their licence. These licence conditions require INAC-CSD to submit construction drawings and as-built plans and drawings for waste management facilities within set time periods.

4. Sludge Management

The submitted manual states that according to analytical results, sludge produced from the project’s sewage treatment plant will be disposed in the non-hazardous waste landfill or containerized and shipped out to an appropriate treatment facility. The criteria used to determine whether or not sludge can be disposed in the landfill and the anticipated amount of sludge produced by the sewage treatment plant was not provided. This information as well as a description of the monitoring that will be carried out to characterize sludge (i.e., parameters of analysis and frequency of sampling) should be included in a revised plan).

5. Discharge Procedures from Sewage Treatment Plant

The submitted plan should be revised to include a description of how treated sewage effluent is discharged from the project’s Bionest sewage treatment plant, its flowpath, and any additional monitoring to prevent erosion in the receiving environment. It is understood that the effluent is discharged onto the tundra and that the nearest surface water body is the Murchison River. The quantity of water that will be discharged, duration of discharge, and the distance that effluent will travel before reaching surface water should be specified. Furthermore, the plan should address mitigation measures that will be implemented if signs of erosion, ponding, and permafrost subsidence are observed.

6. Residual Ash from Project's Incinerator

The submitted manual states that residual ash from the project's incinerator will be collected in drums and analyzed to determine whether they can be disposed in the non-hazardous waste landfill or if they need to be shipped off-site for treatment and disposal at an approved facility. The sampling of residual ash from the project's incinerator is not necessary provided that the material being incinerated is deemed to be non-hazardous and acceptable to the Board. If this is the case residual ash should be suitable for disposal in the project's non-hazardous waste landfill.

7. Runoff Diversion and Management from the Non-hazardous Waste Landfill

Part E, Item #3 of the licence requires that the submitted manual include runoff diversion and management measures for the non-hazardous waste landfill. This is outstanding in the current version of the manual.

8. Waste Handling Facility – Not Constructed

The submitted manual states that waste handling facilities are not required to carryout project activities as originally planned and reflected in the licence. Contaminated soils are containerized directly at each excavation site and hazardous wastes from building demolitions are containerized on demolition site. However, it is indicated that a lined waste handling facility will be constructed in the upcoming remediation season if necessary. Should INAC-CSD construct a waste handling facility they must revise the submitted operations and maintenance manual to include a detailed description of this facility (i.e., location, proximity to surrounding water sources, quantity and types of waste materials being handled, effluent quality monitoring and discharge procedures, etc.) and ensure that the necessary drawings are submitted to the Board pursuant to their licence conditions.

Prepared by David Abernethy

c.c.: L.A. Cornacchio, Water Resources Manager
P. Kusugak, Field Operations Manager