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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File: 1BR-SIM0813/TR/E2

November 8, 2010

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Subject: Licence No. 1BR-SIM0813, "CAM-D (Simpson Lake)

Intermediate Dew Line Site" Kitikmeot Region, Nunavut" – Indian and Northern Affairs Canada – Contaminated Sites;

Submission of the Operation and Maintenance Manual

Dear Ms. Plato:

The Nunavut Water Board ("NWB") has completed a technical review of the "Operation and Maintenance Manual Sewage, Solid Waste Disposal & Waste Handling Facilities CAM-D DEW Line Environmental Remediation" (Manual), which was submitted on October 06, 2010. The Manual was forwarded to the distribution list for information. The comments were received from Kitikmeot Inuit Association (KIA) on November 3, 2010, from Environment Canada (EC) and from Indian and Northern Affairs Canada (INAC) on November 5, 2010.

KIA expressed no concerns with the Manual at this time.

EC stated that any effluent discharged must be in compliance with Section 36(3) of the Fisheries Act. It was also recommended the use of an approved incinerator for the disposal of combustible camp wastes. EC has developed a technical document for Batch Waste Incinerator, which provides information on appropriate incineration technologies, best management and operation practices, monitoring and reporting, and is available at the following link:

http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=F53EDE13-1

INAC stated that the Manual 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. A Topographic map, 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.

INAC indicates that the drawings included in Appendix 2 and entitled "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 stated also that 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. It was stated that the revised Manual should also 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 onto the tundra and Murchison River). The Manual should address mitigation measures that will be implemented if signs of erosion, ponding, and permafrost subsidence are observed. It was also indicated that Part E, Item #3 of the licence requires that the submitted manual include runoff diversion and management measures for the non-hazardous waste landfill. INAC stated that this is outstanding in the current version of the manual.

KIA, EC and INAC comments are available at NWB's FTP site under the following link: ftp://nunavutwaterboard.org/.

Further review of the Manual by NWB identified some issues that should be addressed by the Licensee. An approval of the Manual as submitted will be withheld and the <u>Licensee is requested to revise the Manual and re-submit for approval within thirty (30) days of this letter</u>. The revised Manual should include the following:

- Topographic map of an appropriate scale including site infrastructure, monitoring program stations, nearby water bodies, treated and discharged sewage effluent pathway;
- Description of mitigation measures to prevent erosion, ponding and permafrost subsidence during the discharge of treated sewage effluent onto the tundra;
- Anticipated amount of sludge produced by the sewage treatment plant and criteria used to determine whether or not sludge can be disposed in the landfill;
- Operation and maintenance procedures; and runoff diversion and management measures for the non-hazardous landfill as required by Part E, Item 3 of the licence; and
- Original electronic copies of "Project Landfill Drawings" as well as as-built drawings for two sewage lagoons.

Should you have any questions, please feel free to contact the undersigned at (867) 360-6338 Ext. 30 or k.kharatyan@nunavutwaterboard.org, at your earliest convenience.

Yours truly,

Karén Kharatyan Technical Advisor

cc: Distribution List – Kitikmeot