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www.inac.gc.ca

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Your file - Votre référence
1BR-RAN

Our file - Notre référence
#80520 / 9545-0779(N6L4)

May 25, 2006

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Via Email

Re: 1BH-RAN/GA - Mosher Engineering Ltd. - Rankin Inlet Power Plant Project - Licence Application

On behalf of Indian and Northern Affairs Canada (INAC) I have reviewed the above-mentioned application. The following specialist advice has been provided pursuant to INAC's mandated responsibilities for the enforcement of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NW&NSRT), *Arctic Waters Pollution Prevention Act* (AWPPA), and the *Department of Indian Affairs and Northern Development Act* (DIAND Act).

Background Information

Mosher Engineering Ltd. is applying for a Type B licence for water use and waste disposal associated with the Rankin Inlet Power Plant Project. The Nunavut Power Corporation is constructing a Residual Heat Distribution System that will redirect excess heat from the Hamlet's power plant to the heating systems of 10 buildings. Supply and return lines will connect the boiler rooms of these buildings to the power plant's diesel engines. These lines will have diameters of 4 to 6 inches and a total length of 1.5 km, of which 1 km will be positioned underground and 0.5 km will be aboveground. Mosher Engineering Ltd. has been contracted to provide all civil, structural, electrical, and mechanical work required for installation of the distribution system. It requires a water licence to allow for the hydrostatic testing of this system. No supply or return lines will be buried at the time of hydrostatic testing.

The proponent has requested a licence to permit the use of 40,000 L of water from August 1 to September 20, 2006. The Distribution System will be treated in 3 or 4 sections and no more than 5,000 L of water will be consumed per day. Should the system leak, the water will be pumped into a storage tank and be returned to the system once the cause of the leak has been repaired. All water used in this hydrostatic test will be acquired from municipal street hydrants. Following the hydrostatic test, the water will be tested and analyzed according to a set of parameters to be determined by the Nunavut Water Board. The analysis results will be submitted to the Nunavut Water Board and upon its approval, the water will pass through a solid particle collector device and be discharged into the municipal sewage treatment facility. The proponent has requested that the water be tested using the same parameters identified in the NWB4REP licence issued for the hydrostatic testing of fuel tanks in the Hamlet of Repulse Bay. These parameters include pH, major ions, conductivity, metals, benzene, toulene, ethyl benzene, xzylene, total suspended solids, hardness, total petroleum hydrocarbons, total dissolved solids, and total organic compounds.

INAC Comments

It is recommended that the following comments be taken into consideration when reviewing this licence application.

WATER QUALITY ANALYSIS

- INAC appreciates the proponent proactive commitment to analyze waste water generated from this hydrostatic test using the parameters required in a similar licence. However, it is felt necessary for the proponent to ensure that the parameters of analysis are specific to this undertaking. In selecting appropriate parameters, the proponent should identify the properties of the piping material, the types of residues within the piping, the quality of water within the various boiler units, and any other substances that can enter the Distribution System. Once these results are acquired, parameters necessary for analyzing waste water can be determined. If preferred, the proponent can analyze the water for a wide range of parameters as approved by the Board.
- All water quality analyses shall be performed at a Canadian Association of Environmental Analytical Laboratories (CAEL) certified laboratory or, as approved by the Board. Furthermore, it is recommended that duplicate samples be taken for quality assurance purposes.
- Prior to releasing any water into the surrounding environment, the parameters for analysis must meet the CCME Canadian Water Quality Guidelines for the Protection of Aquatic Life.

WASTEWATER DISPOSAL

- The results of the water quality analyses should be submitted to the INAC operations division as well as the Board. In cooperation with the Board, INAC will determine whether the water used in the hydrostatic test can be discharged into the municipal water treatment system. Patrick Larocque, water resources' officer, is the INAC contact. Patrick can be reached by office telephone at (867) 975-4289 and by fax at (867) 979-6445.
- It is suggested that a detailed description of the solid particle collector unit be submitted for review. This description should identify the performance quality of this treatment method, the manufacturer, and any other relevant information.

SPILL CONTINGENCY

- It is recommended that a stand-alone Spill Contingency Plan be developed for this project.
- The Spill Contingency Plan's contact list should include the INAC water resources' officer contact, Patrick Larocque.

If there are any changes to the proposed project, INAC should be notified, as further review may be necessary. Please do not hesitate to contact me if you have any questions or comments with regards to the foregoing by telephone (867) 975-4555 or by email via abernethyd@inac-ainc.gc.ca.

Sincerely,

Original signed by

David W. Abernethy
Water Resources Coordinator

cc. Jim Rogers - Manager of Water Resources, Indian and Northern Affairs Canada, Iqaluit