



Water Resources  
Nunavut Regional Office  
P.O. Box 100  
Iqaluit, NU, X0A 0H0

Your file - Votre référence  
2BE-IHE---

January 17, 2013

Our file - Notre référence  
CIDM# 621880

Phyllis Beaulieu  
Manager, Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0A 1J0

**Re: Application for Water Licence – Quilliq Energy Corporation – Iqaluit Hydro-Electric Project**

Dear Phyllis Beaulieu:

Aboriginal Affairs and Northern Development Canada (AANDC) has performed a review of the water licence application 2BE-IHE--- submitted by Quilliq Energy Corporation to the Nunavut Water Board (NWB). The following advice has been provided pursuant to AANDC's mandated responsibilities under the Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA) and the Department of Indian Affairs and Northern Development Act (DIAND Act). In conducting our review, AANDC referred to the documents on the NWB's FTP-site under 2BE-IHE---.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4568 or by e-mail at [Rory.MacDonald@aandc-aadnc.gc.ca](mailto:Rory.MacDonald@aandc-aadnc.gc.ca)

Regards,

Sent via Email

Rory MacDonald  
Water Resources Technician

Cc. David Abernethy, A/Manager of Water Resources, AANDC  
Erik Allain, Manager of Field Operations, AANDC  
Jean Allen, Water Management Specialist, AANDC



Technical Review Memorandum

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Rory MacDonald – Water Resources Technician, AANDC

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**Re: Application for Water Licence – Quilliq Energy Corporation – Iqaluit Hydro-Electric Project**

1. Project Description

The Nunavut Water Board (NWB) distributed Quilliq Energy Corporation (QEC) licence application for review on December 17<sup>th</sup>, 2012. QEC is requesting an exploration licence term of 2 years for water use and waste disposal associated with the Iqaluit Hydro-Electric project proposed for Jaynes Inlet and Armshow River South.

Supplemental environmental baseline studies and engineering investigations are planned for the 2013 field season, conducted in 2 phases. A geotechnical drilling program is expected to begin in early April during the ice cover for a period of about 30 days. No camp facilities will be erected during this phase with project logistics based out of Iqaluit (i.e. field crew flown to and from site daily).

Environmental baseline studies will be carried out over 3.5 months beginning in mid-June and run until late September. A full-service tent camp is proposed for the Armshow River site and two emergency tent shelters for the Jaynes Inlet site – as the baseline program is more advanced at Jaynes, limited work will be carried out there.

Requested water use is 68m<sup>3</sup>/day: 3m<sup>3</sup>/day for domestic purposes and 65m<sup>3</sup>/day to support geotechnical drilling. In addition, sewage wastes will be incinerated on site and solid wastes will be a combination of incineration and/or off-site disposal at the Iqaluit landfill.

Fuel caches will be established at both sites – drums will be slung from Iqaluit via helicopter or QEC will consider bulk delivery during the open water season. Bulk storage of fuel will be within lined containment.

2. Results of Review and Recommendations

AANDC Water Resources Division offers the following comments and recommendations for the Board's consideration.

A. General

- Any changes in operating plans or conditions associated with this project, QEC shall notify the NWB at least thirty (30) days prior to any such change.
- AANDC finds the proposed quantity of water use to be appropriate. It is recommended that sources of water are submitted on a map (scaled to an appropriate size) with coordinates.
- Under Item #7 of the "Water License Application", QEC indicates that no land use plan conformity determination is required. Written correspondence from Nunavut Planning Commission confirming that a land use plan conformity review is not required, should be provided prior to issuance of the requested undertaking.



- Under Item #6 (Camp Classification) of the “Exploration/Remote Camp Supplementary Questionnaire” it requests that the proponent provide details on design, maximum and expected average population of the camp. AANDC recommends that QEC provide details on the camp design as they are not included.

## B. Drilling

### Ice based Drilling

- Water quality sampling should be conducted prior to (i.e. baseline) and after drilling activities occur. When drilling additives are not used for ice-based exploration drilling operations, released return water must be non-toxic and not result in an increase in total suspended solids within the immediate receiving waters. Results to be included in monitoring reports.
- For drilling operations on ice, the proponent should ensure that all drill cuttings are placed in drill holes, sumps, or removed from the project area for appropriate treatment.

## C. Wastes

- AANDC recommends that all incinerated ash be removed from the site for appropriate disposal as opposed to being disposed of in local depressions on site as suggested in the proponents “Exploration/Remote Camp Supplementary Questionnaire”.
- Prior to any disposal at the Iqaluit Landfill, QEC should receive written permission for disposal of non-combustible wastes and submit to the Nunavut Water Board

## D. Spill Contingency

- In Table 4.1 of the “2013 Field Investigation Spill Contingency Plan” submitted by QEC the Departmental contact (AANDC) should be updated as AANDC – Manager of Field Operations, telephone (867) 975-4295.