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Water Resources

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Your file - Votre référence

2BE-KIG

Our file - Notre référence

9545-2-6SIG / CIDMS 133604

March 22, 2007

Richard Dwyer

Licensing Trainee

Nunavut Water Board

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Sent via email

Re: 2BE-KIG - AREVA Resources Canada Inc. - Kiggavik Sissons 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).

AREVA Resources Canada Inc. (AREVA) is applying for a licence to allow uranium exploration activities in its Kiggavik Sissons Project Area. A licence is required to support a diamond drilling program and the domestic needs of project personnel. The proponent requests a daily use of less than 100 cubic metres freshwater from nearby streams and rivers and permission to deposit those wastes which are not incinerated or removed from site in sumps. Project activities will be based out of the Kiggavik Camp located approximately 80 kilometres km west of Baker Lake and 300 metres south of a small unnamed lake (general coordinate of 64°26'26" north latitude, 97°39'36" west longitude).

Indian and Northern Affairs Canada requests that the following comments be considered.

- INAC recommends that the proponent follow the Mineral Exploration Guidelines for Saskatchewan (Saskatchewan Mineral Exploration and Government Advisory Committee, 2005) with regard to uranium exploration best management practices. In particular, the proponent is advised to comply with the following guidelines.
 - Drill mud solids or cuttings with a uranium concentration greater than 0.05 % are to be disposed of down the drill hole and sealed.
 - Any drill hole that encounters uranium mineralization with content greater than 1.0% over a length of more than 1 meter (m), and with a meter-

percent concentration greater than 5.0, should be sealed (i.e., cement grouting) for the initial 15 m below the ground's surface layer, 15 m above the non- permafrost layer, and entire length of the mineralization zone below the permafrost layer, and 15 below the mineralization zone. Should diamond drilling not go beyond permafrost conditions, there is no need to grout below 15 m from the ground's surface layer due to permafrost encapsulation.

- ▶ Gamma radiation levels measured at 1 m from the surface of core storage areas should be reduced to 1.0 μSv and in no instance will the level be allowed to exceed 2.5 μSv . When core is found to exceed the levels identified, the Nunavut Water Board should be contacted for review and approval of the handling procedures (INAC requests that it also be notified of such occurrences). Instruments that measure radiation in counts per second must be converted to μS according to the specification of that instrument.
- Drill holes that penetrate the permafrost layer should be permanently sealed and capped to prevent induced groundwater contamination or surface water salinization. Furthermore, INAC requests the provision of permafrost depth readings for data management purposes.
- INAC recommends that burned combustible waste ash be thoroughly raked to remove non-combustible items (e.g., iron nails and tinfoil). Raked ashes should either be buried on-site or delivered to an approved waste disposal facility.
- AREVA should revise its Spill Contingency Plan to include any spill prevention measures specific to ground transportation of fuel products.

Indian and Northern Affairs Canada requests notification of any changes in the proposed project, 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.

Sincerely,

Original signed

David W. Abernethy
Regional Coordinator

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