



Water Resources Division
Nunavut Regional Office
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**Refer: 2BE-NUE – New Water License Application – Cameco Corporation –
Nueltin Lake Project**

Indian and Northern Affairs Canada (INAC) has reviewed the Type B Water License Application for the Nueltin Lake Project in the Kivalliq Region, as submitted to the Nunavut Water Board (NWB). In conducting our review, INAC has referred to the documents on the NWB's FTP-site under 2BE-NUE.

INAC recommends that the Nunavut Water Board take into consideration the following comments when reviewing this licence application:

General:

- INAC recommends that core storage areas should be located at least 30 metres from the high water mark of all water bodies.
- All chemicals should be stored a minimum distance of 30 metres from any bodies of water.
- Sumps should only be used for inert drilling fluids, not any other materials or substances. The sumps should be properly closed out at the end of the project.

Drilling:

- Land-based drilling should not occur within 30 metres of the ordinary high water mark of any water body or drill fluids must be contained and removed to a point 30 metres away from water.
- Drill cuttings and any return water and sludge that cannot be re-circulated should be disposed in a properly constructed sump or appropriate natural depression located at least 30 metres above the ordinary high water mark of any adjacent water body.
- Drilling fluids from the sumps should not be permitted to enter into any waters or onto any land surface where the drilling fluids may enter any waters.
- Drill holes should have all rods and casings removed, or cut off at ground level, plugged and capped prior to abandonment.



- Drill holes that encounter uranium mineralization with a content greater than 1.0% over a length of more than 1 metre with a meter-percent concentration greater than 5% should be sealed by a consolidated material, such as cement or clay, over the entire mineralization zone, and not less than 10 meters above and below each mineralization zone.
- If artesian flow is encountered, especially with highly mineralized water, drill holes shall be plugged and permanently sealed upon project termination.
- The company should be required to plug holes at the bottom of the permafrost if drilling extends through the permafrost. The Board also should request the company to provide the depth of permafrost in their annual report to the Board.
- The project's licence monitoring program requirements should be expanded to include the collection of basic water quality data at the water sources downstream of each drill site. A total of three (3) parameters, pH, water temperature, and conductivity, should be collected / analysed upstream and downstream of each drill prior to and upon completion of drilling activities using a calibrated field meter or other approved method. The information should be provided to the Nunavut Water Board in the annual report and, if pH or conductivity changed greatly, the Proponent should also inform the Nunavut Water Board of the mitigation actions that were taken.

Fuel Management:

- INAC recommends that Cameco provide the Water Board with the intended locations, types and quantities of fuel to be stored at the drilling sites.
- Fuel stored in drums should be located 30 meters from any streams or bodies of water, preferably in an area of low permeability.
- Fuel storage containers should be situated in a manner that allows easy access and removal of containers in the event of leaks or spills.
- Spill containment should be used at points where fuel transfer occurs.

Spill Contingency Plan:

- The spill plan should be updated to include drilling additives and Material Safety Data Sheets (MSDS) for those additives as soon as they are identified.
- INAC requests that the MSDS sheets be added to the Spill Contingency Plan before the start up of the project
- INAC recommends that Cameco keep a copy of the spill plan on site at the drilling locations.



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Affairs Canada

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et du Nord Canada

INAC thanks the Nunavut Water Board for the opportunity to review the new water license application (2BE-NUE) for Cameco Corporation. Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4566 or by email at trenholmt@inac.gc.ca.

Sincerely,

Originally signed by

Tanya Trenholm
Pollution Policy Specialist

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