

April 14, 2008

Richard Dwyer  
Licensing Administrator  
Nunavut Water Board

**via Email to:** [licensingadmin@nunavutwaterboard.org](mailto:licensingadmin@nunavutwaterboard.org)

**RE: NWB FILE # 2BE-QAM0608 – CAMECO CORPORATION –  
QAMANAARJUK PROJECT (TURQAVIK AND ABERDEEN)**

Dear Mr. Dwyer:

The Government of Nunavut, Department of Environment (DOE) has reviewed the water license renewal application from Cameco Corporation for uranium exploration at the Qamanaarjuk project site located about 100 km northwest of Baker Lake, and has the following comments and recommendations to make regarding spill contingency planning, abandonment & restoration, land use planning, and Canadian Heritage Rivers.

## 1. Spill Contingency Plan

Based on DOE's *Spill Contingency Planning and Reporting Regulations*, and *Contingency Planning and Spill Reporting in Nunavut: a Guide to the New Regulations*, we recommend the following be updated:

- A description of the type and amount of chemicals normally stored on site should be included in the Spill Contingency Plan (SCP).
- Please be advised that the telephone numbers for DOE are (867) 975-7700 for general inquiries and (867) 975-7748 for the Manager, Pollution Control and Air Quality. Please update the SCP contact list.
- The SCP does not outline any disposal/treatment techniques for contaminants (e.g. contaminated soils); however, states that Federal and Territorial regulatory agencies will be contacted in order to “identify appropriate disposal methods before disposing of contaminated material”. The regulators do not generally provide disposal instructions for spilled and/or contaminated materials. It is the proponent’s responsibility to develop a complete plan which addresses the steps to be taken from the start of the spill, up to and including the final clean up and disposal. Regulators such as DOE can review the final plan to

assess its adequacy and provide advice at that time. Regulators can, and have, provided information and advice in emergency situations, however, these agencies should not be included in a spill plan as routine advisors.

## **2. Abandonment & Restoration Plan**

### **Contaminated Soils:**

Soil contaminated by fuel (e.g., soils under an old storage tank) should be treated on site or removed to an approved disposal site and replaced with new soil. Soils in the vicinity of fuel and/or chemical storage should be tested and disposed off if necessary. The proponent is referred to DOE's *Environmental Guideline for Site Remediation*.

### ***Final Inspections:***

Final inspections of the entire site should be conducted by the proponent and lead agency to make sure that all areas of the site have been reclaimed as much as possible to its previous condition. Soil samples and pictures before and after the project would make this process easy on the proponent and leading agencies involved in determining areas of concern.

## ***Incineration***

The Government of Nunavut is a signatory to the *Canada-Wide Standards for Dioxins and Furans*, and *Canada-Wide Standards for Mercury Emissions*. For incineration of wastes, DOE therefore has the following comments to make regarding emissions from incineration.

For a camp of greater than 10 but less than 50 people, the proponent shall apply appropriate technologies to ensure complete combustion of wastes, and the use of a dual chamber, forced-air incinerator is recommended. The proponent shall make determined efforts to achieve compliance with the Canada-wide Standards. Efforts should include the implementation of a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of. The Waste Management Strategy should consider and include:

- Purchasing policies that focus on reduced packaging,
- On-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).
- If incineration is required, ensure diligent operation and maintenance of the incineration device and provide appropriate training to the personnel operating and maintaining the incinerator.

Waste wood treated with preservatives such as creosote, pentachlorophenol or heavy metal solutions should not be burned. Additionally, plastics, electrical,

wire, asbestos and building demolition wastes (except clean wood) are wastes likely to produce dioxins and furans when burned and should be excluded from incineration. Under no circumstance should hazardous wastes be managed through burning or incineration.

The efforts made to achieve compliance shall be reported as part of the annual report.

## Uranium

If groundwater (e.g. artesian well) is encountered during drilling, the entire length of the hole should be cemented (grouted).

### **3. Land Use Planning**

There is a concern that the issuing of permits or licenses relating to exploration for uranium may lead to an expectation that further development of these projects will be permitted. The DOE is aware that Nunavut Planning Commission has determined low level exploration for Uranium to be in conformity with the Keewatin Regional Land Use Plan but believes the proponent should be aware of the following provisions in the plan:

(pg.65) of the Keewatin Regional Land Use Plan states:

*3.5 - Uranium development shall not take place until NPC, NIRB, NWB and the NWMB have reviewed all of the issues relevant to uranium exploration and mining. Any review of uranium exploration and mining shall pay particular attention to questions concerning health and environmental protection. (A) (CR)*

*3.6 – Any future proposal to mine uranium must be approved by the people of the region.*

#### **4. Canadian Heritage River**

Due to the project's close proximity to the Thelon Canadian Heritage River, DOE has the following comments to make.

The Canadian Heritage Rivers System (CHRS) is Canada's national river conservation program. It is a cooperative program between the government of Canada and each jurisdiction that promotes, protects and enhances Canada's river heritage, and ensures that Canada's heritage rivers are managed in a sustainable manner through responsible river stewardship, cooperation and public support. The objective of the program is to give national recognition to Canada's outstanding rivers and to ensure long-term management that will

conserve their natural and cultural heritage values and recreation opportunities for the benefit and enjoyment of Canadians now and in the future.

In Nunavut, there are three designated Heritage Rivers (Soper, Kazan and Thelon) and one nominated river, the Coppermine. For designated rivers, a management plan, which is lodged with and accepted by the CHRS Board, outlines specific goals and objectives of river management, and details how each river's outstanding values will be protected.

The Thelon River was nominated and designated as an ‘*arctic oasis*’ whereby the river helps to create a boreal environment surrounded by Arctic tundra. This river environment supports peregrine falcon nesting, wolverine habitat, outstanding concentrations of caribou, and nesting and molting areas for a major population of Canada Geese. In addition, the river’s cultural heritage is an important representation of the Caribou Inuit culture as evidenced by significant archaeological sites representative of various periods of Inuit culture along with river; and is capable of supporting outstanding and increasingly important recreational use without loss of heritage values.

In keeping with these values, the objectives of the Thelon River Management Plan are to manage, conserve and interpret the river's natural and cultural heritage resources; to encourage and monitor recreational use of the river and ensure its compatibility with the conservation of heritage resources; and to give a national perspective to visitors regarding the role of the Thelon in Inuit history and culture of the Kivalliq region.

Recognizing the voluntary nature of heritage river stewardship, DOE requests that activities conserve and protect the heritage resources along the river and to the extent possible do not detract from the recreational use and enjoyment of the river. Where possible the proponent should be required to locate camps or facilities outside the one kilometer buffer from the river, as outlined in the Heritage River Management Plan. Additionally DOE requests that INAC take extra measures to ensure that proper monitoring, inspection and enforcement of permit requirements occurs.

The management plans for the heritage rivers can be obtained at DOE by contacting Richard Wyma at [rwyma@gov.nu.ca](mailto:rwyma@gov.nu.ca).

DOE thanks NWB for the opportunity to provide comments on this renewal water license application. Please contact us if you have further questions.

