ᐊᕙᑎᓕᕆᔨᒃᑯᑦ

Avatiligiyiit

Department of Environment

Ministère de l'Environnement

May 1, 07

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board

via Email to: licensing@nunavutwaterboard.org

RE: NWB FILE # 2BE-QAM – CAMECO CORP. – QAMANAARJUK PROJECT

Dear Ms. Beaulieu:

The Government of Nunavut, Department of Environment (DOE) has reviewed the water license amendment application from the Cameco Corp. for the Qamanaarjuk project for uranium exploration west of Baker Lake. The DOE believes the project will not result in significant adverse effects although the potential for negative environmental impacts exists. Based on the *Environmental Protection Act* and the *Wildlife Act*, the DOE has the following comments to make regarding spill contingency, abandonment & restoration, air quality, land use planning, and heritage rivers.

1. Spill Contingency Plan

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

- To prevent spreading in the event of a spill, fuel stored in drums should be located, whenever practical, in a natural depression a minimum distance of 90 feet from all water bodies, preferably in an area of low permeability. All fuel storage containers should be situated in a manner that allows easy access and removal of containers in the event of leaks or spills. Large fuel caches in excess of 20 drums should be inspected daily.

- The DOE recommends the new spill form be utilized in the case of spills, and spill information be entered electronically so the information is legible to authority investigation the spill. The new spill form with instructions can be obtained from the Spill Line at (867) 920-8130.

2. Abandonment & Restoration Plan

P. O. Box 1000, Stn. 1360 PH: (867) 975-7733
Iqaluit, Nu X0A 1H0 FX: (867) 975-7739

The DOE has the following comments and recommendations to make:

- Drilling additives used should be non-toxic and biodegradable, and be accompanied by MSDS sheets. Sumps for drill cuttings should only be used for inert drill cuttings, not any other materials or substances. The sumps should be properly closed out at the end of the project.

- Drill cuttings with a uranium concentration of greater than 0.05 % should be disposed of down the drill holes and sealed.

- Drill holes that encounter uranium mineralization with a content greater than 1.0% over a length of more than 1 meter with a meter-percent concentration greater than 5% should be sealed by cementing over the entire mineralization zone, and not less than 10 meters above and below each mineralization zone.

- Drill holes should be sealed by cementing the upper 30 meters of the bedrock or the entire depth of the holes; whichever is less.

- Core storage areas should be located at least 100 meters from the high waterline of all water bodies.

- Gamma radiation levels of a long-term core storage area should not be greater than 1.0 µSv, and should never exceed 2.5 µSv. Instruments that measure radiation in counts per second should be converted to µs.

3. Air Quality

The Government of Nunavut is a signatory to *Canada-Wide Standards for Dioxins and Furans* and *Canada-Wide Standards for Mercury Emissions*. The DOE therefore recommends the following be implemented to ensure Canada-Wide Standards (CWS) compliance.

For camps of 10 to 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. Burning of wastes in a burn barrel as indicated in the license application is unacceptable. The proponent shall make determined efforts to achieve compliance with the CWS. 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.

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. Burning or incineration of hazardous wastes is not recommended, and should comply with the CWS if it were to be carried out.

4. Land Use Planning

There is a concern that the issuing of permits 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:

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.

5. The Canadian Heritage Rivers System

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

During the summer months the Thelon River is frequented by recreational Canoeists providing much needed tourism dollars to Nunavut communities. Please note that the Canadian Heritage Rivers System (CHRS) is Canada's national program for freshwater conservation. In Nunavut (as elsewhere in Canada), it is a cooperative program between the governments of Canada and the Government of Nunavut (other provincial and territorial governments for the rest of Canada). The objectives of the program are to give national recognition to Canada's outstanding rivers and to ensure long-term management that will conserve their natural, cultural and recreational values for the benefit and enjoyment of Canadians, now and in the future.

In Nunavut, three rivers have been designated (Soper, Kazan and Thelon), meaning that management plans detailing how their heritage values will be protected have been lodged with the CHR Board, and one has been nominated (Coppermine). Therefore, we ask that if the NWB approves the project within the management areas of the Heritage Rivers that it insures, via conditions within the license, that the proponent respects the values of the Heritage Rivers and not to engage in any activity that would interfere or other wise detract from the experience of tourists and Nunavummiut using the Heritage Rivers now and in the future. The Management Plan for the Thelon River can be obtained at http://www.nunavutparks.ca/bulletin_board/publications_docs/Thelon%20River%20Mgmt%2E%20Plan%20%2811%2D40%2D12%29%2Epdf.

The DOE thanks the NWB for giving us the opportunity to review and provide comments on the Qamanaarjuk project water license amendment application. Please contact us if you have any further questions or comments.

Yours sincerely,

Original signed by

Helen Yeh
Environmental Assessment Coordinator
Department of Environment
Government of Nunavut
P.O. Box 1000, Stn. 1360
Iqaluit, Nu X0A 0H0
PH: (867) 975-7733
FX: (867) 975-7747
EM: hyeh@gov.nu.ca