Environment Canada **Environnement Canada**

Environmental Protection Operations
Qimugjuk Building 969
P.O. Box 1870
Iqaluit, NU X0A 0H0
Tel: (867) 975-4639
Fax: (867) 975-4645

July 5, 2007

Richard Dwyer
Licensing Trainee
Nunavut Water Board
PO Box 119
Gjoa Haven, NU
X0A 1J0

via e-mail

RE: Uranium North Resources Ltd. – Amer Lake Project – 2BE-AME – New Type B Water License

On behalf of Environment Canada, I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act,* and the *Species at Risk Act*.

The purpose of Uranium North's program is to explore for the presence of uranium in the rocks found in the Amer Lake Project area which is located about 150 km north-northwest of Baker Lake. Activities proposed for this program are geophysical surveys conducted from the air and ground, prospecting, mapping, rock and soil sampling and fresh bedrock sampling by drilling approximately 10 diamond drill holes per year. All activities will be conducted by a crew of about 10 to 12 people housed in a temporary camp and the camp will be made up of about 10 tents.

EC is pleased that Uranium North Resources is taking a proactive approach to uranium exploration by committing to the environmental and sustainable development of the Amer Project. In addition to the commitments outlined by the proponent in their NWB application Environment Canada recommends that the following conditions be applied throughout all stages of the project:

Regulatory

The proponent should be aware that in addition to the regulations outlined in the supplementary questionnaire, Uranium North Resources is required to be in compliance with the *Migratory Bird Convention Act* and the *Species at Risk Act*.

General/Camp

- The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes or sediment into any water body. According to the *Fisheries Act, Section* 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited
- Any sumps, including those created for the disposal of drill cuttings, shall be located at least 31m above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish. Sumps should be inspected daily to ensure there is no erosion or surface run-off.
- The proponent shall not store materials, including fuel barrels for drilling activities, on the surface ice of lakes or streams, except that which is for immediate use.

Waste Management

- Environment Canada recommends the use of an approved incinerator for the disposal of combustible camp wastes. Installation of an incineration device capable of meeting the emission limits established under the *Canada-wide Standards (CWS) for Dioxins and Furans* and the *CWS for Mercury Emissions* is required (both the Government of Canada and the Government of Nunavut are signatories to these Standards and are required to implement them according to their respective jurisdictional responsibility).
- The use of appropriate waste incineration technology should be combined with a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of. EC recommends that incineration technology be combined with a Waste Management Plan.
    - **The Waste Management Plan** 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).
        - Commitment to recycling where possible.

The objective should be to ensure that only food waste and food-contaminated waste is burned (the use of paper, cardboard and clean wood as supplementary fuel is acceptable).

- Ensure diligent operation and maintenance of the incineration device and ensure appropriate training is provided to the personnel operating and maintaining the incinerator.
- Used absorbent materials, oily or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants) should be safely stored and transported in sealed containers and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.
- Camp waste should be made inaccessible to wildlife at all times. Camp waste can attract predators of migratory birds (e.g., foxes and ravens) to an area if not disposed of properly.

Fuel Storage/Spill Contingency

- Secondary containment or a surface liner (drip pans, fold-a-tanks, etc) should be placed under all container or vehicle fuel tank inlet and outlet points, hose connections and hose ends during fuel or hazardous substance transfers. Secondary containment should be of adequate size and volume to contain and hold fluids for the purpose of preventing spills (the worst-case scenario). Appropriate spill response equipment and clean-up materials (absorbents, containment devices, etc) must be on hand during any transfer of fuel or hazardous substances and at vehicle-maintenance areas.
- All staff shall be instructed regarding these spill/clean-up procedures.
- Spill kits should include a skimmer for the clean up of spills on water and muskeg.
- All releases of harmful substances, regardless of quantity, are immediately reportable where the release:
    - is near or into a water body;
    - is near or into a designated sensitive environment or sensitive wildlife habitat;
    - poses an imminent threat to human health or safety; or
    - Poses an imminent threat to a listed species at risk or its critical habitat

Drilling

- Environment Canada would like to inform the proponent that the *Canadian Environmental Protection Act* has listed CaCl as a toxic substance. The proponent shall therefore ensure that if CaCl is used as a drill additive, all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any water body.

Abandonment and Restoration

Section 6 Buildings and Structures states that wooden structures will be burnt upon final abandonment. Burning of wood should only be considered if the wood has not been treated with chemicals. Burning wood waste treated with protective coatings or preservative chemicals can release harmful substances such as Dioxin and furans into the environment, including our water resources. EC strongly recommends that all contaminated wood be removed from site upon final abandonment and disposed of at an approved recycling or waste facility.

The Canadian Wildlife Service (CWS) of Environment Canada has reviewed the above-mentioned submission and makes the following comments and recommendations pursuant to the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations)*, and the *Species at Risk Act* (SARA).

- In order to reduce disturbance to resting, feeding, or moulting birds, EC recommends that aircraft used in conducting project activities maintain a flight altitude of at least 610 m during horizontal (point to point) flight unless safety or cloud ceiling do not permit. Environment Canada acknowledges that lower flight altitudes may be required for the geophysics surveys.
- In order to reduce disturbance to resting, feeding, or moulting birds, Environment Canada recommends that aircraft used in conducting project activities maintain a vertical distance of 1000 m and minimum horizontal distance of 1500 m from any observed concentrations (flocks / groups) of birds.
- Section 35 of the *Migratory Birds Regulations* states that no person shall deposit or permit to be deposited, oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.
- All mitigation measures identified by the proponent, and the additional measures suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponents' representatives (including contractors) conducting operations in the field. EC recommends that all field operations staff be made aware of the proponents' commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.
- Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations (*the *Regulations)*. The proponent must ensure they remain in compliance with the *Act* and *Regulations* during all phases and in all undertakings related to the project.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at cindy.parker@ec.gc.ca.

Yours truly,

Original signed by

Cindy Parker
Environmental Assessment Specialist

cc: (Carey Ogilvie, Head- EA North, Environment Canada, Yellowknife, NWT)
(Myra Robertson, Environmental Assessment Coordinator, CWS, Yellowknife, NWT)