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## Avatiligiyiit

Department of Environment

Ministère de l'Environnement

April 14, 2008

Richard Dwyer  
Licensing Administrator  
Nunavut Water Board

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

**RE: NWB FILE # 2BE-GAR0710 – URAVAN MINERALS INC. – GARRY LAKE  
URANIUM EXPLORATION PROJECT**

Dear Mr. Dwyer:

The Government of Nunavut, Department of Environment (DOE) has reviewed the amendment water license application from Uravan Minerals Inc. for Garry Lake uranium exploration project. Based on the *Environmental Protection Act*, we have the following comments and recommendations to make regarding spill contingency planning, abandonment & restoration, and land use planning.

## 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:

- The name, job title and **24 hour telephone number** for the persons responsible for activating the contingency plan. This ensures the employee discovering the spill can activate a response and provides a 24 hour point of contact for the authority investigating the spill.
- A **site map** that is intended to illustrate the facilities relationship to other areas that may be affected by the spill. The map should be to scale and be large enough to include the location of your facility, nearby buildings or facilities, roads, culverts, drainage patterns, and any nearby bodies of water.
- A description of the **type and amount of chemicals** normally stored on site.
- Chemicals should be stored in a safe and chemically-compatible manner a minimum of 90 feet from all bodies of water. Material safety data sheets (MSDS) should be provided for each chemical and be posted in a central location; accessible by all camp personnel. Camp

personnel should be conversant in the handling of these chemicals as well as able to deal with any accidents or spills.

- Hazardous materials stored on-site should be marked so they will be visible under all conditions, in all seasons. This recommendation is intended to help prevent possible injuries to camp personnel and/or damage to the containers. Additionally, all hazardous materials should be removed from the site upon completion of the activity. The proponent is referred to DoE's *Environmental Guideline for the General Management of Hazardous Waste*.
- A more detailed description of the training provided to employees to respond to a spill. A sound training program is necessary when dealing with an emergency situation.
- Please be advised that the telephone numbers for the DOE is (867) 975-7700 for general inquiry and (867) 975-7748 for the Manager Pollution Control and Air Quality.
- An inventory and the location of response and clean up equipment available to implement the plan, should be discussed. This includes your equipment as well as any to be used by another person responding to the spill on your behalf. Although there is mentioning of spill kits (large and small), there is no mention of what the spill kits contain; the spill kits should contain as a minimum booms, absorbent pads/sheets, disposable gloves, and sorbent.

## **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*.

## ***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 for dioxins and furans and the Canada-wide Standard for Mercury. 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.

## ***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.

## Uranium

- Drill cuttings with a uranium concentration greater than 0.05% should be disposed of down the drill holes and sealed. Additionally, the drill holes should be sealed by cementing at least the upper 15 meters of bedrocks or the entire depth of the holes; whichever is less. If groundwater (e.g. artesian well) is encountered the entire length of the hole should be cemented (grouted).
- Core storage areas should be located at least 100 meters from the high waterline of all water bodies.

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- Gamma radiation levels of a long-term core storage area should not be greater than 1.0  $\mu\text{Sv}$ , and should never exceed 2.5  $\mu\text{Sv}$ .

### **3. 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.*

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

Yours sincerely,

**Original signed by**

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