



Oct. 6, 2007

Richard Dwyer
Licence Administrator
Nunavut Water Board

via Email to: licensingadmin@nunavutwaterboard.org

RE: NWB FILE # 2BE-SLA – GOLDEN BULL RESOURCES LTD. – SLAVE LAKE PROJECT

Dear Mr. Dwyer:

The Government of Nunavut, Department of Environment (DOE) has reviewed the water license application for the Slave Lake project, from the Golden Bull Resources Ltd. for all non-diamond mineral exploration, approximately 210 km southeast of Kugluktuk. Based on the *Environmental Protection Act*, the DOE has the following comments to make regarding camp incinerator, spill contingency, and abandonment & restoration.

A. CAMP INCINERATOR

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

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 project proposal as one of the options on page 3 of the NWB Water 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. Finally, if waste oil is to be incinerated as indicated on page 3 of the NWB Water License Application, the proponent should ensure emission meets the CWS standards.

B. SPILL CONTINGENCY PLAN

Based on the DOE's *Spill Contingency Planning and Reporting Regulations, and Spill Reporting in Nunavut: a Guide to the New Regulations*, the DOE has the following comments to make:

- Names and quantity (in volumes or weights) of both fuel and chemicals such as drill additives to be used on site should be provided in the 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 streams, 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.
- Page 8 of the *Fuel Spill Contingency Plan* stated that the proponent would “contact the 24-Hour Spill Line, Receive instructions from the appropriate contact agencies listed in Section 5.4 regarding collection of the contaminated soil or vegetation, its removal and site cleanup/restoration.” Regulators such as the DOE do not 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. The regulators can review the final plan to assess its adequacy and provide advice at that time.
- Site maps should be included in the spill plan once camp layout is decided as the maps are intended to illustrate the facilities relationship to other areas that may be affected by the spill. The maps 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.
- The DOE monitors the movement of hazardous wastes from generators, carriers to receivers, through a tracking document (Waste Manifest). A Waste Manifest must accompany all movements, and all parties must register at the DOE with Robert Eno at reno@gov.nu.ca or at (867)975-7748. This procedure is not stated in the spill plan.

C. ABANDONMENT & RESTORATION

To ensure proper reclamation of the project site after closure, the DOE recommends the following:

- Page 8 of the *Abandonment and Decommissioning Plan* stated that “any contaminated soil will be bagged and removed for proper disposal in a landfill, or aerated on tarps.” If the proponent intends to dispose of the contaminated soil in a landfill, the landfill has to be approved to accept the soil. However, if the proponent intends to treat the soil on site, the soil has to be treated to an approved standard before disposal; the applicant is recommended to refer to the DOE’s *Environmental Guideline for Site Remediation* for guidance.
- Drill sumps should only be used for inert drilling fluids, not any other materials or substances. If hydrocarbon based drill additives such as rod grease are used, the use of a filtration system aimed towards reduction of harmful substances to the environment, is recommended.
- It is unclear if uranium will be one of the target mineral for this exploration project. If this is the case, the DOE recommends the following be carried out:
 - Drill cuttings with a uranium concentration 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 5.0 should be sealed by cementing over the entire mineralization zone and beyond (this should be at least 10 meters above or below each mineralization zone).
 - 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.

The DOE thanks the NWB for the opportunity to provide comments on the Slave Lake project. Please contact us if you have further questions.

Yours sincerely,

Original signed by

Helen Yeh



Environmental Assessment Coordinator
Department of Environment
Government of Nunavut