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Department of Environment

Ministère de l'Environnement

June 7, 2007

Richard Dwyer
Licensing Trainee
Nunavut Water Board

via Email to: licensingtrainee@nunavutwateboard.org

RE: NWB FILE # 2BB-BOS – MIRAMAR HOPE BAY LTD. – BOSTON PROJECT

Dear Mr. Dwyer:

The Government of Nunavut, Department of Environment (DOE) has reviewed the water license renewal application from the Miramar Hope Bay Ltd. for the Boston project for conducting gold exploration east of Umingmaktok. The DOE believes the project will not result in significant adverse effects although the potential for negative environmental impacts exists. Based on the DOE legislative mandate under the *Environmental Protection Act*, we have the following comments to make regarding waste management, and abandonment & restoration.

A. WASTE MANAGEMENT

1. Spill Contingency Plan

Based on the DOE *Spill Contingency Planning and Reporting Regulations, Contingency Planning and Spill Reporting in Nunavut: a Guide to the New Regulations*, and *Guideline for the General Management of Hazardous Waste in Nunavut*, we have the following comments and recommendations to make:

- All fuel tanks, connectors and associated plumbing should be installed in a manner that meets current acceptable codes for the installation of such appliances. Fuel tanks should be situated on solid platforms, on a stable base, and should be inspected regularly for leaks and movement (shifting). Flex connectors, if used, should be installed as per manufacturer's instructions and should be inspected regularly.

- It is advised to keep a stock of 55 gallon "overpack" or "salvage" drums. These afford a safe, effective and rapid means for containing leaking drums.

- It is strongly advised to keep a written log of the inspections. For long term storage (> 6 months), it is strongly recommended that drummed fuel be stored on pallets to prevent the bottoms from rusting out.

- Volumes and names of fuel and chemicals stored on sites should be provided within the spill plan.

- To prevent spreading in the event of a spill, fuel caches 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. Additionally, large fuel caches in excess of 20 drums should be inspected daily.

- It is unclear whether or not the contact number provided is a 24-hour number. The 24-hour number for the persons responsible for activating the contingency plan is required as 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 detailed description of the spill response training that will be delivered to emergency responders should be included with the plan. The qualifications and background of the instructor(s) as well as well as a course outline should also be provided. This information is useful to regulatory agencies in that it allows them to determine how well-prepared the proponent is to deal with hazardous materials spills.

- 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 (867) 975-7748.

- The NWT-Nunavut spill report form has been updated, and can be obtained from the Spill Line. The proponent is advised to enter spill information electronically in the form so the information is legible to regulators inspecting spills.

2. Land Treatment Area

The proponent indicated that a Land Treatment Area (LTA) is used to remediate hydrocarbon contaminated soils, but no details of the LTA were submitted for review. Details including but not limited to treatment methods, operation & maintenance procedures, and monitoring procedures should be provided.

3. Sewage Management

The proponent plans to use a Rotating Biological Contactor (RBC) to treat sewage at the 60-people Boston camp; however, has not provided details such

as operation and maintenance protocols, waste management options for sewage sludge, and mitigation measures in the case of RBC malfunction. The DOE therefore recommends the proponent submits a sewage management plan that includes but not limited to the above recommendations, and incorporates suitable spill response measures into their spill contingency plan.

4. Camp Incinerator

The Government of Nunavut is signatory to the *Canada-Wide Standards (CWS) for Dioxins and Furans*, and Canada-*Wide Standards for Mercury Emissions*. The DOE therefore requests the proponent ensures incineration emissions comply with the CWS by implementing the following recommendations.

The proponent shall apply appropriate technologies to ensure complete combustion of wastes, and the use of a dual chamber, controlled-air flow incinerator is recommended. Compliance with the Standards shall be demonstrated with an initial stack test upon commission of the incinerator at site. Additionally, the proponent shall implement a 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. Furthermore, incineration of hazardous wastes such as waste fuel is not recommended. If waste fuel is incinerated as indicated in the application, the proponent should demonstrate the incineration emission comply with the CWS.

B. ABANDONMENT & RESTORATION

Drill holes should be backfilled or capped at the end of the project. The sumps should only be used for inert drilling fluids, not any other materials or substances. The sumps should be properly closed out at the end of a project.

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

Yours sincerely,

Original signed by

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