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## Avatiliqiyiit

Department of Environment

Ministère de l'Environnement

Mar. 7, 08

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board

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

**RE: NWB # 2BE-CHI – PEREGRINE DIAMONDS LTD. – CHIDLIAK DIAMOND  
EXPLORATION PROJECT**

Dear Ms. Beaulieu:

The Government of Nunavut, Department of Environment (DOE) has reviewed a new water license application for the Chidliak project from Peregrine Diamonds Ltd. (proponent) for conducting diamond exploration approximately 85 km northeast of Iqaluit. Based on DOE's *Environmental Protection Act*, we have the following comments to make regarding spill contingency planning, air quality, and abandonment and restoration.

**A. 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*, DOE recommends the following:

- Aside from fuel, name and quantity of chemicals (i.e., drill additives) normally stored on site should also be outlined in the spill plan.
- 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 spill report form should be included in the spill plan, and the proponent is recommended to utilize a newly developed spill report form in the case of spills, and to enter spill information electronically so it is legible to regulators investigating the spills. The new form can be obtained at the **SPILL LINE**.

## **B. AIR QUALITY**

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

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 is unacceptable. The proponent shall make determined efforts to achieve compliance with the Canada-wide Standards. 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, incineration of hazardous wastes is strongly discouraged.

## **C. ABANDONMENT & RESTORATION**

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

- Sumps should be located at least 30 m away from high water marks of water bodies.
- Sumps should only be used for inert drilling fluids, not any other materials or substances. If hydrocarbon based drill additives such as rod grease is used, DOE recommends the use of a filtration system aimed towards reduction of harmful substances to the environment.
- 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.

DOE thanks NWB for giving us the opportunity to review and provide comments on Peregrine Diamonds Ltd. Chidliak project. 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