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Our file: 4703 003 006
NWB file: 2AM-LUP0008

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RE: NWB – Submission of 2008 NWB 1LUP0008 Annual Report

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

2008 NWB1LUP0008 Annual Report

Interim Abandonment and Restoration Plan

- Environment Canada is pleased to see that OZ Minerals Canada Resources Inc. (OZ) has made recommended changes to the Abandonment and Reclamation (A&R) plan as requested during the renewal of the water licence.
- As mentioned in the January 20, 2009 letter from OZ to the Nunavut Water Board (Board), OZ proposes to further consult with the Board prior to the commencement of any work on the culverts, breakwater, causeway and alternative methods for managing hydrocarbon contaminated soils during the finalization of the interim A&R plan. EC looks forward to reviewing this plan when it is made available.

Spill Contingency Plan

- Please note that the Environment Canada pager noted in Appendix I, page 56 of the Spill Contingency Plan, is no longer in service.

Wildlife Management Plan (Care and Maintenance)

- The report discusses raptors, but does not discuss any specific mitigation measures related to minimizing impacts to other bird species. Environment Canada recommends that the specific mitigation measures to minimizing impacts to other bird species are included in the Wildlife Management Plan.
- EC recommends that the proponent include any plans for wildlife monitoring in this document.

Storm Water Management Plan (Care and Maintenance)

- In section 4.4 Material Handling Procedures, it should be noted that drip pans, or other similar preventative measures, should be used when refueling equipment on site or transferring materials.

Waste Management Plan (Care and Maintenance)

- The Waste Management Plan should include the following:
 - an estimate of the quantities of waste to be incinerated;
 - a description of the type of incineration equipment to be used;
 - a description of the type of training the operators will receive; and,
 - a description of how this information will be reported.
- Please note that EC is developing a Technical Document for Batch Waste Incinerators. The technical aspects of the document focus on appropriate incineration equipment and best management practices required to achieve the Canada-Wide Standards for dioxins/furans and mercury. To assist the Board, a draft copy of the executive summary of the technical document is provided. The Board and the proponent are encouraged to contact EC for further information regarding the technical document. The final version of the summary and the full document should be available on the Environment Canada website this fall.
- In Section 4 Management of Contaminated Soils, page 7, it is mentioned that contaminated soils from spills of petroleum products “shall be excavated until there is no visible sign of contamination.” The Canada-Wide Standards for Petroleum Hydrocarbons in Soil (CWS PHC) (CCME, 2001) was developed to provide consistent methods and outcomes for the assessment and management of sites contaminated with petroleum hydrocarbons, and has recently been adopted by the Government of Nunavut in the “Environmental Guideline for Contaminated Site Remediation” (2009). Environment Canada recommends that the proponent commit to performing confirmatory sampling in any excavation to remove petroleum hydrocarbon contaminated soils to verify that residual levels meet the CCME criteria for the intended land use where releases occur. Confirmatory sampling should also be conducted on the bottom and side walls of excavations which have been undertaken to remove solvent-contaminated soils, presuming that the contaminated soils are the result of a known, recent release. Long-standing contamination with solvents or petroleum hydrocarbons will result in the formation of a dissolved phase of the product which can be mobile in groundwater and meltwater, and treatment of such contaminated soils must involve proper characterization to delineate the extent of soil and groundwater pollution.

Care and Maintenance Plan

- In Section 4.3 Exposed Dry Tailings, page 6 of the draft Care and Maintenance Plan, OZ states that areas that are not covered year-round with water will as an interim measure be covered “with a thin layer of sand and gravel by bulldozing material from the adjacent tailing cover.” EC initially commented on this practice in a letter dated January 13, 2009. EC continues to recommend that cover for exposed dry tailings be sourced from a location other than existing covered tailings. Using cover from existing covered tailings areas could potentially: disturb existing vegetation, which increases stabilization of cover; leave the existing covered tailings subject to active layer thawing and potentially frost heave; and/or expose currently covered tailings to increased oxidization and erosion.

TCA Discharge Procedure

- EC recommends that a map be included in the TCA Discharge Procedure document.
- In Section 3 Discharge TCA, page 5, OZ states that they will “ensure that the flow meter is reading correctly and have it calibrated as per MMER specifications. EC requests that more information be provided on how OZ will ensure the flow meter is working properly.

TCA Discharge Sampling Procedure

- A map with sampling locations should also be included in the TCA Discharge Sampling Procedure document.
- EC recommends that sampling procedures should also include the collection of field measurements (pH, conductivity, temperature) and recording of ambient conditions.

If there are any changes in the 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 Carrie.Spavor@ec.gc.ca.

Yours truly,

Original signed by

Carrie Spavor
Environmental Assessment Coordinator

cc: Carey Ogilvie (Head, Environmental Assessment North, Environment Canada, Yellowknife, NT)
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