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Environment Canada

Enviro Canada

Environmental Protection Branch Qimuqjuk Building 969 P.O. Box 1870

Igaluit, NU XOA OHO Tel: (867) 975-4639 Fax: (867) 975-4645

October 31, 2003

Dionne Filatrault Senior Technical Advisor Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0

Tel: (867) 360-6338 Fax: (867) 360-6369

Nunavut Water Board NOV 03 2003 Public Registry

Via Facsimile

INTERNAL PC LP MA FO LA BS Our file: 4705 037 NANI ST TA1 TAD RC ED CH BRD EXT

RE: NWB1NAN0208 - Underground Mine Solid Weste Disposal Plan

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

Nanisivik Mine has submitted their Underground Mine Solid Waste Disposal Plan to the Nunavut Water Board, as per item G16 of their water license. The purpose of the plan is to identify and classify the waste, and provide information on how and where the waste will be disposed of. Overall, the Underground Solid Waste Disposal plan lacks a considerable amount of detail required in order to assess the potential impacts that this plan may have on the environment. If the information is to be presented in the final Abandonment and Reclamation Plan, EC recommends that TeckCominco indicate as such in the plan. In order to help facilitate the improvement of the plan, EC offers the following comments and recommendations for your consideration.

- Environment Canada recommends that CanZinco Ltd. maintain photo documentation of the materials that are being disposed of underground or in the open pits.
- Environment Canada requests clarification regarding when the hazardous items such as antifreeze and batteries will be shipped off site. What other hazardous items besides batteries and antifreeze will be sent south for treatment/disposal?
- The current Waste Disposal Plan provides only general locations where items will be disposed of (i.e. fencing from the propane enclosure will be disposed of "underground"). Environment Canada requests that TeckCominco provide more detailed locations where all of the items will be disposed of, such as the block area number, pit name, or portal number. It would be helpful is the maps included at the end of the Waste Disposal Plan be updated to indicate which of the areas identified will be used for the disposal of contaminated materials, and which will be used for non-hazardous disposal.
- Environment Canada requests that TeckCominco provide information regarding why the various disposal locations were chosen. This includes a detailed explanation based on geotechnical criteria why certain areas have been designated for hazardous or nonhazardous waste disposal. It is recommended that TeckCominco provide the criteria and rationale for choosing the selected areas for waste disposal, and omitting other areas.



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- The Waste Disposal Plan indicates that vehicles/equipment and the fuel pipeline are to be emptied of fluids. Environment Canada requests details regarding how this is be accomplished.
- Environment Canada recommends that tires that cannot be salvaged be shredded prior
 to their placement in the west end of the mine in order to minimize the amount space
 required, and to prevent the potential for them to rise to the surface post closure.
- The tables in the Waste Disposal plan should indicate the units in which the amounts of demolition debris to be generated are being measured.
- The summary of the waste volumes for the Industrial Complex given under Section iv (page 8) indicate a total volume of demolition debris that will be generated during the demolition of the cold and warm storage buildings. However, it is unclear as to whether these amounts include the concrete foundations, as they may be removed to facilitate contouring. It is recommended that TeckCominco clarify this point to clearly indicate the complete total of all waste to be disposed of.
- Environment Canada recommends that the proponent ensure that the final contours of the waste disposal areas are sufficient to prevent erosion and pooling of water.
- The plan indicates that the amount of contaminated soll that is be disposed of
 underground is to be determined during the Phase III Environmental Site Assessment.
 Environment Canada recommends that TeckCominco make estimations of the amount of
 soil that is contaminated in order to facilitate the planning of space requirements for
 underground storage.
- The Summary of Waste volumes for the dock area indicate a total of 3757 m3 of material. However, additional of the values given result in a total of 3770. Some of the volumes given in the summary of the waste volumes for the Warehouse yard also do not match the volumes given in the text. There are also discrepancies between the numbers in the tables and the test in the Town Site section. Environment Canada recommends that TeckCominco double check the figures located in the plan.
- The Placement Methods section of the Waste Disposal Plan indicates that in most cases "no further handling will be required" after the trucks dump the material into the allotted storage space. Environment Canada recommends that, if possible, the waste be compacted in order to minimize void spaces.

If there are any changes in the proposed 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) 975-4639 or by email at colette.meloche@ec.gc.ca.

Yours truly

Colette Meloche

Environmental Assessment Specialist

(Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)