



Environment Environnement
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Our file: 4703 001 016

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RE: NWB1BOS0106 – Miramar Hope Bay Ltd. – Boston Project – Amendment for the Construction of Solid Waste Site

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*.

Miramar Hope Bay Ltd. is proposing to amend their current water license to allow for the construction of a Solid Waste Disposal Facility (SWDF) at the Boston site. The application for this amendment was originally submitted in 2003, however, the Nunavut Water Board (NWB) has only recently considered it to be technically and administratively complete. While MHLB indicates that the likelihood of the construction of the SWDF proceeding at the Boston site in 2004 is low, the application has been submitted in order to expedite the review.

The SWDF will be located south of the existing Settling Pond #2 (utilizing its existing berm as the northern berm of the SWDF) and east of the Tank Farm (utilizing its existing berm as the western berm of the SWDF). The facility would only accept inert materials for disposal. Operation of the facility would follow the recommendations laid out in the Bryant Environmental Consultants Ltd. "Assessment Report on the Solid Waste Disposal Site at the Hope Bay Joint Venture Boston Project" report dated August 21, 2001.

Environment Canada notes that NWB license NWB1BOS0106, Part F outlines a number of items which are to be included in an application for amendment for the creation of a SWDF. Based on these items, EC has noted some information deficiencies in the current amendment application. The application lacks information regarding the location of waterbodies and drainage pathways in the area of the proposed facility. Information regarding abandonment and restoration plan, as well as an operation and maintenance plan are also absent from the application. This information should be submitted for review. A spill contingency plan for the SWDF should also be developed and submitted for review.

Environment Canada recommends that the following conditions be applied throughout all stages of the project:

- The application states that material for the construction of berms and cover material is limited at the Boston site. Therefore, the application proposes to use low grade ore that



- is stockpiled on the surface and some that is underground for construction of the SWDF. While MHBL has advised that the ore is non-acid generating, there is potential for the leaching of heavy metals from the ore. Environment Canada therefore recommends that MHBL be required to complete leachate testing of all low-grade ore proposed for use in the SWDF prior to construction to ensure that levels are sufficiently low.
- The original application for the construction of a SWDF at the Boston site was submitted in 2001. At that time, the lifespan of the facility was determined to be five (5) years, with a maximum capacity of approximately 1387 m³ based on the calculations performed by Bryant. Given that it is likely that additional scrap metal and debris has accumulated at the site over the past three years, EC requests confirmation that the estimated maximum capacity of the landfill of approximately 1387 m³ is still sufficient. If not, EC requests a revised maximum capacity and an alternate location for the SWDF be submitted, if the revised capacity is in excess of the surveyed capacity for the location of 1483.5 m³.
 - Environment Canada is aware of several other advanced exploration areas owned by Miramar Hope Bay Ltd. in the area surrounding the Boston Camp. The Bryant Assessment Report indicated that wastes from the Boston and nearby Windy Lake camps would be disposed of the SWDF. Environment Canada recommends that if wastes from the other exploration camps are to be disposed of at this facility, the design capacity of the facility be reassessed to ensure that it is sized appropriately to contain all these wastes.
 - Environment Canada recommends that an isolated cell be created within the SWDF for the disposal of incinerator ash.
 - The Kitikmeot Inuit Association Access to Inuit Owned Land application states that "Initially, this site will be used for the disposal of inert material." Environment Canada recommends that the SWDF be used only for the disposal of inert materials throughout its lifespan.
 - Environment Canada recommends that bulky material be cut up into smaller pieces prior to disposal to decrease the amount of void space in the SWDF.
 - The Bryant Assessment Report indicates that the east berm of Settling Pond #2 has slumped and requires repair. Environment Canada recommends that in order to avoid similar problems during the construction of the new berms, the origin of the problem be investigated, and measures taken to prevent the berm from slumping again in the future.
 - Environment Canada requests clarification regarding how the 0.75 m cap for Settling Pond #2, as outlined in the Bryant Assessment Report, was determined.
 - The Bryant Assessment Report recommends that groundwater monitoring wells be installed. Environment Canada concurs with this recommendation and requests that information regarding the location and depth of these wells be submitted, along with a sampling protocol indicating parameters to be sampled and timing of the samples. Any modifications to the existing Surveillance Network Program which occur as a result of this facility should also be submitted.
 - As built drawings, stamped by a professional engineer registered to practice in Nunavut, should be submitted once available. These drawings should include specifics on the leachate control system that is installed.
 - The proponent should keep a record of the location and types of waste are being disposed of in the SWDF.
 - Species at risk as defined by the *Species at Risk Act* may be encountered in the project area. The proponent shall make themselves aware of the special status of these species and minimize disturbance or contact with them. Species at risk which may be encountered include, but are not limited to, grizzly bears, wolverines, short-eared owls, and *tundrius* peregrine falcons, listed as species of Special Concern under Schedule 3 of the *Species at Risk Act*.



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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,

Original signed by

Colette Meloche
Environmental Assessment / Contaminated Sites Specialist

cc: (Stephen Harbicht, Head, Assessment and Monitoring, Environment Canada, Yellowknife)