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via e-mail

RE: Miramar Hope Bay Inc Annual Report & Reclamation Closure Plan and Emergency Response and Contingency Plan – 2BB-BOS106/TR/B7

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 has submitted their 2006 Annual report, Reclamation Plan and Emergency Response and Contingency Plan as a requirement of Part B, Item 7 for water license 2BB-BOS106.

Annual Report

The proponent has failed to meet some of the conditions outlined in the water license. Under Part B, Item 7, water license NWB1BOS0106, the proponent is to submit an annual report containing i) monthly and annual quantities of treated sewage effluent discharged, ii) tabular summaries of all data generated under the Surveillance Network Program", and iii) monthly and annual quantities of Sludge removed from the Sewage Disposal facility.

EC has noted that monthly reports are being submitted for activities taking place at Boston Camp for 2007 under the water license 2BB-BOS0106. This license has expired on December 31, 2006 however; Miramar is reporting movement of fuel, fuel spills and average daily water usage at Boston camp? The proponent should not be using water for the purposes of waste disposal and camp operations without a license; these activities must cease if the license expires. It is the responsibility of the proponent to apply to the NWB for its renewal. EC encourages the NWB to consider past performance of the Licensee prior to license renewal.

The proponent has indicated in their 2006 annual report that the impacted snow from a spill taking place on May 16, 2006, was removed and placed in the Land Treatment Farm (LTF) at Boston Camp. EC is unaware that the LTF at Boston Camp has been approved and licensed? EC recommends that the NWB direct Miramar to seek alternative methods for dealing with contaminated soils until the LTF has approved designs, an Operation and Maintenance Plan has been licensed by the NWB. Without proper design and capacity as well as proper operation and maintenance it is unsure if the LTF would effectively treat contaminated soils.

Reclamation Plan

Section 7.2 Contaminated Soil of the *Closure and Reclamation Plan* indicates that corncobs absorbed with petroleum hydrocarbons will be incinerated on-site. EC recommends that the corncobs and all other

contaminated absorbent materials be securely stored and removed from site to an approved hazardous waste management facility. Burning absorbent materials and waste products releases numerous contaminants to the air, many of them persistent, bioaccumulative and toxic (e.g. polycyclic aromatic hydrocarbons - PAH's - heavy metals, chlorinated organics – dioxins and furans). These contaminants can result in serious impacts to human and wildlife health through direct inhalation and they can also be deposited to land and water, where they bioaccumulate through food chains affecting wildlife and country foods.

Placing corncocks in the Boston Camp licensed Land Treatment Farm should not be an option at this time. It is EC understanding that the Land Treatment Farm at Boston Camp has not yet been licensed and should not be operating until the NWB approves engineered designs.

- The objective of incineration should be to ensure that only food waste and food-contaminated waste is burned (the use of paper, cardboard and clean wood as supplementary fuel is acceptable).
- Used absorbent materials, oily or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants) should be safely stored and transported in sealed containers (odor free to prevent animal attraction) and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.

In Section 9.11, the Proponent plans to incinerate the HDPE liner from the Land Treatment Areas. EC recommends that alternative disposal methods are used. If the HDPE liner is not contaminated it could be recycled or landfilled. If the HDPE liner is contaminated it should be removed from the site to an approved hazardous waste management facility.

If incineration is used as a disposal option, the Proponent should develop an incineration management plan in consultation with EC to ensure that appropriate incineration equipment and appropriate incineration management practices are used.

Section 7.3 Non combustible – Non hazardous Solid Waste

Environment Canada is pleased to see the Miramar has implemented a waste segregation program. EC is concerned with possible effects of dioxin and furan emissions which can occur due to the incineration of certain types of plastics. Therefore, we request that plastics be included in the non combustible solid material and sent off-site for recycling or proper disposal.

Section 8.1.6 Petroleum Products and Storage Facilities indicates that the lined secondary containment area will be cleared of all standing water, treated on-site and then land applied. However, no information is given regarding the type of discharge criteria that will be used? EC recommends the decanting of snow or water from the berm area should proceed only if the appropriate chemical analysis has determined the contents meet the requirements of Section 36(3) of the *Fisheries Act*. EC recommends that the water be tested against the 2003 CCME guidelines for Freshwater Aquatic Life prior to discharge. The proponent shall ensure that any water which is suitable for discharge after treatment be discharged in such a manner as to prevent erosion from occurring.

Section 9.6 Buildings and Equipment

The Proponent should make more of a determined effort to remove bulky material; especially those potentially contaminated with hydrocarbons, from the site and not rely solely on the Doris North Landfill for disposal. EC is concerned there are inadequate provisions made to ensure that equipment contaminated with hydrocarbons will be properly cleaned prior to being placed in the landfill. EC would like confirmation that these procedures would also apply to any equipment being disposed of in the landfill.

The Reclamation Closure Plan does not address how steel products contaminated lead will be handled. There are a few options in disposing of these types of contaminants. One is to dispose of the components off-site as hazardous waste. The second is to remove any lead paint on site and dispose of with components on-site with the non-hazardous waste. If the Proponent anticipates having to dispose of any

waste contaminated with lead paint clarification is required regarding which option will be implemented. If the decision is made to remove the lead paint on site, detailed information is required regarding how the lead chips will be contained on site, and if water is used, how the water will be contained and treated.

The Reclamation Closure Plan should address the total volumes of waste which will be placed in the landfill.

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) 975-4631 or by email at cindy.parker@ec.gc.ca.

Yours truly,

Original signed by

Cindy Parker
Environmental Assessment Specialist

cc: (Carey Ogilvie, Manager Environment Canada, Yellowknife, NWT)
(Dave Foxe, Air Quality Specialist, Environment Canada, Yellowknife, NWT)