Independent Environmental Monitoring Agency

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January 14, 2003

Melody J. McLeod Chair, Mackenzie Valley Land and Water Board 7th Floor – 4910 50th Avenue Yellowknife, NT X1A 2P6

Dear Ms. McLeod:

Re: BHP Billiton Misery Prototype Land Treatment (Atomization) Draft License Review (MV2002L2-0003)

The Independent Environmental Monitoring Agency (the Agency) has reviewed the draft license MV2002L2-0003 and wishes to make the following comments for the consideration of the Mackenzie Valley Land and Water Board (MVLWB).

Since the proposed land treatment is experimental, we believe a monitoring program should be required. The monitoring program should tell regulators and the company how effective the procedure is in achieving acceptable water quality and in protecting the environment. In the event of any problems, the monitoring program should also provide to both regulators and the company information needed to improve performance. The current draft license does not clearly require such a program and, in our view, a requirement to monitor should be incorporated into the licence. Since the details of a monitoring program are not yet part of the application, these should be developed by the proponent at the earliest possible date, and submitted to the Board for its approval, prior to project installation.

We recommend that the MVLWB modify the draft licence to reflect the statements below:

- 1) The licensee shall submit a draft-monitoring program to measure the effectiveness of the project in achieving acceptable water quality and in protecting the environment to the Board for approval within three (3) months of the issuance of this licence.
- 2) Once the monitoring program is approved, the licensee shall implement it.

Thank-you for your attention to our comments, if you have any questions please contact the Agency through our office.

Sincerely,

Red Pedersen Chair

Cc. Society Members IACT Members

Attachments:

1. Extracts from letter to MVLWB from Red Pedersen dated September $15^{\rm th}$, 2002.

Extracts from Red Pedersen's letter to the MVLWB dated September 15th, 2002:

Re: BHP Billiton's July, 2002 Misery Site Surplus Water Atomization Project Class B Water License Application.

- 2. In Sec.4.1.1 dealing with the release of solutes from spring snow melt, BHPB notes the experimental nature of the project and recognizes the importance of "careful monitoring of runoff and seepage in the active layer". Sec.4.2 lists the parameters that will be the subject of the monitoring program attached to this project. We recommend the addition of the following components to the list:
 - Groundwater quality to the tundra water quality sampling;
 - Metal uptake by plants in the vegetation monitoring;
 - Soil composition changes in the zone of influence.
- 3. In keeping with our previous recommendations on land treatment, we recommend that a complete and detailed plan of the monitoring program be submitted to the MVLWB for its review and approval prior to the installation of the system. The plan should identify critical thresholds for parameters at which management action will be triggered, and should describe the management action required when thresholds are exceeded. Results of the monitoring program should be reported annually. There should also be a requirement for the necessary baseline sampling of soil and vegetation characteristics to be done prior to disturbance so that the measured parameters can be properly evaluated.
- 4. We would further recommend that the monitoring program include a requirement for a complete ecological assessment of the project at its decommissioning to be submitted to the MVLWB.