



INDEPENDENT ENVIRONMENTAL MONITORING AGENCY

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June 26, 2006

Sarah Baines
Wek'eezhii Land and Water Board
c/o Mackenzie Valley Land and Water Board
Box 2130
Yellowknife NT
X1A 2P6

Dear Ms. Baines

Re: Additional Information Submitted by BHP Billiton on Use of Calcium Chloride

The Agency would like to clarify our letter dated June 16, 2006 on the issue of the information submitted by BHP Billiton on May 17, 2006 in response to questions from the Wek'eezhii Land and Water Board on the permanent use of calcium chloride.

The Agency is aware that chloride levels in the Long Lake Containment Facility (LLCF) are rising and that there have been unpredicted spikes in several of the monitored parameters in Cell E, including chlorides. BHPB has responded accordingly, by undertaking a special study to better understand the rising levels of chloride and other parameters. As we understand it, the main source of the rising levels of some parameters, including chloride, is a result of increasing quantities of water from underground mining operations as the company shifts from above ground to underground mining. We would like to be able to confirm the relative inputs of chloride into LLCF from various sources.

The preliminary results of this special study are reported to show chloride levels in Cell E high enough to suggest a concern with the ability to protect downstream aquatic life. The Agency remains concerned about the predicted levels and would like to know more about how BHPB will be able to deal with this potential problem. More specifically, what are the details on which the predictions are based and what are the treatment options for chloride and what mitigative measures are there to avoid levels of chloride that may be harmful to the receiving downstream environment? We would like to have an opportunity to review the LLCF water quality study that BHPB has indicated it has done to help answer these questions.

BHPB is required to undertake a study to determine appropriate criteria for chloride levels within the Sable, Beartooth and Pigeon expansion under licence MV2001L2-008. A Tier I risk assessment for chlorides was submitted to the Mackenzie Valley Land and Water Board



in April 2004. This report dealt with the potential for chloride release from waste rock, lake dewatering and other mining operations in the expansion area. There was also a brief review of regulatory guidelines and standards in other jurisdictions for chloride releases and a short literature summary on effects. We note that BHPB is undertaking a Tier II risk assessment. We trust that this study will deal with the chloride levels that are and will be encountered from the increasing underground mining operations. Even though this study was undertaken for a different water licence, it ought to have information relevant to the release of water from LLCF.

The Agency also acknowledges that the issue of rising levels of chlorides in the LLCF, and any potential discharges into the downstream environment, will also be dealt with through an Adaptive Management Plan as required in Part H of the new licence. BHPB has indicated to us that the development of the adaptive management plan is scheduled to begin this fall.

In the view of the Agency, it is very important for the Board, and indeed all interested parties, to have the above two studies (the LLCF water quality study and the Tier II risk assessment for chloride) to understand that implications of approval for adding further chloride to LLCF through the processing plant. The Agency acknowledges that there are benefits to chloride in assisting with the settling of fine particles, but there may well be other means of dealing with that problem (see the March 31, 2006 letter from the Agency) and we wish to ensure the protection of the downstream receiving environment. It is difficult at best to make the assessment of the short term benefits of additional chloride versus the long term effects in the absence of the two studies and an Adaptive Management Plan.

We understand from BHPB that these two studies are undergoing an internal review and urge that they be released as soon as possible to allow for review by the Board and others and an informed decision on the permanent use of chloride in the processing plant.

Should a decision on the permanent use of chloride at the processing plant be necessary before the two studies have been submitted and before the approval of an Adaptive Management Plan, the Agency is of the view that the Board should take a precautionary approach. This would translate into setting an interim limit for the discharge of chloride from Cell E no higher than 150 mg/L as suggested in our June 16, 2006 letter.

We trust that this clarification sets out our reasons for the additional information that will allow the Board to make a better informed decision. We would be happy to discuss our concerns with you and BHPB staff.

Sincerely,

-ORIGINAL SIGNED BY-

Bill Ross
Chairperson

cc. Brent Murphy, BHP Billiton Diamonds Inc.