Independent Environmental Monitoring Agency
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December 3, 2004

Stephen Nielsen
Interim Chairperson
Mackenzie Valley Land and Water Board
PO Box 2130
Yellowknife, NT X1A 2P6

Dear Sir,

Re: Draft 2 of Water Licence MV2003L2-0013

The Independent Environmental Monitoring Agency earlier submitted comments on Draft 1 of the above licence for seven separate issues. Those comments and recommendations should still be considered by the Board in its deliberations when finalizing the licence renewal.

The Agency focus of this submission is on the effluent quality criteria (EQC) proposed in Draft 2 of the water licence. We maintain that the effluent quality criteria for the renewed licence should be science-based using available data. We further believe that a valid approach for regulation should be first, to provide adequate protection of the receiving environment and second, to provide sufficient flexibility in the discharge limits to allow the operator sufficient capacity to deal with variability in discharge concentrations.

The Agency acknowledges the good environmental performance of BHBP in maintaining discharges with very low parameter concentrations and commends its ability and willingness to respond quickly to evidence of unexpected trends. However, we do not believe that good environmental performance is a sufficient justification for maintaining current licence limits when such limits could degrade the receiving environment.

1) Adequate Protection of the Receiving Environment

Some of the proposed effluent quality criteria (EQCs) would not ensure ecological protection of the Koala watershed if BHPB discharged at the proposed permitted levels.

Most of BHPB's discharge concentrations are well under permitted levels. However, at least two contaminants (arsenic and cadmium) are predicted to exceed CCME guidelines in the discharge in later years of the mine life, and more recent upward trends of other contaminants in Long Lake have yet to be explained.

Arsenic

We recommend that the regulated limit for arsenic be 0.01 mg/L. This would achieve CCME standards in the receiving environment at Moose Lake.

The draft licence proposes a licence limit of 0.5 mg/L which is over 80x greater than what BHPB predicts would be its maximum discharge concentration, without explanation of the reasons or potential consequences to aquatic life downstream of Moose Lake. Discharge of effluent at the proposed limit would result in exceedence of CCME aquatic guidelines as far downstream as the discharge from Slipper Lake into Lac de Gras.

Cadmium

We recommend that cadmium be added to the list of regulated parameters at a level of 0.0004 mg/L. This would achieve CCME standards in the receiving environment at Moose Lake.

Because of its pronounced toxicity for aquatic life and its propensity to bioaccumulate in fish tissue, cadmium is of particular concern to the Agency and should be regulated. The draft licence proposes 0.001 mg/L as a monitored but not regulated parameter for cadmium.

BHPB has flagged this parameter as attaining levels in the discharge which will exceed the CCME guidelines for aquatic life. No updated prediction of bioaccumulation in fish tissue has been presented to date. We propose a discharge limit of 0.0004 mg/L to protect aquatic life in the lakes downstream of Moose Lake and to minimize the burden of cadmium potentially available for bioaccumulation in fish.

We recommend that copper and chromium be regulated with limits that are protective of the environment at Moose Lake. We do not believe that the limits proposed for copper and chromium would be protective of the Koala watershed, based on recent analysis of available information.

2) The Goal for Establishing Limits

The overarching goal for establishing limits is to allow the mine to operate in ways that are protective of the downstream environment. If, on the other hand, there is proper justification for setting higher limits, then it should be provided for everyone's review. At present, such justification is lacking.

3) Use of non-regulated parameters

We recommend that, as a minimum, cadmium and chromium be added to the list of regulated parameters.

Draft 2 of the water licence proposes, for the first time, that non-regulated, monitored concentrations be identified for some parameters. The theory is that thresholds would be established which, when exceeded, would trigger some kind of responsive action by the company to remedy. At the same time, the company would not be placed in legal non-compliance if the critical thresholds were exceeded. In our view this approach is likely to compromise effective environmental protection and should not be contemplated for several reasons.

First, this places future regulation of the mine on a track of increased uncertainty, since success will depend on as yet unspecified and possibly unproven measures, contingency plans and adaptive management plans, to prevent environmental degradation. Not regulating the contaminants in the effluent discharge that are potentially toxic to aquatic life, is unacceptable.

Second, a year or more may elapse between the first detection of undesirable discharge and the successful implementation of measures to counteract the exceedance. We note that over one year elapsed before surprising upward trends in discharge levels were identified. The reasons for the trends have not been identified nor possible mitigation measures.

Third, the move to a results-based system of environmental protection, away from one with legal controls, is unlikely to be supported by Aboriginal members. This is not a direction the board should adopt without a much wider discussion and acceptance in the larger community.

Sincerely,

-ORIGINAL SIGNED BY-

William A. Ross
Chairperson

Cc: Society Members