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Your file Votre référence
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September 13, 2011

Chuck Hubert
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P.O. Box 938
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Via email

RE: Environment Canada's Final Submission for the Prairie Creek Mine Project & Comments on the Recent Possible Project Modifications

Environment Canada (EC) has reviewed the supplemental submissions concerning possible project modifications related to water quality objectives posted by the Canadian Zinc Corporation (the Proponent) to the Mackenzie Valley Environmental Impact Review Board's (the Board) on August 3, 2011. This letter is divided into two sections; the first applies only to the possible project modifications related to water quality objectives and the second section provides general concluding statements regarding the Environmental Assessment (EA) as a whole.

Section 1 - Possible project modifications related to water quality objectives

The following comments focus on issues related to environmental effects on migratory birds, and species at risk, which fall under the Department's mandated responsibilities arising from the *Migratory Birds Convention Act* and the *Species at Risk Act*.

The construction of the second Water Storage Pond (WSP2) will require additional land clearing or vegetation removal of 10.2 ha of the Spruce-Lichen vegetation unit. Although some of this area is already disturbed, Figure 1 in Golder Associates "Vegetation and Wildlife Assessment of Second Water Storage Pond" report suggests that most of this area is covered by vegetation. The report does not specify the anticipated timing of vegetation clearing for preparing the site for construction of the WSP2. EC reminds the proponent that Paragraph 6(a) of the *Migratory Bird Regulations* prohibits the disturbance, destruction or taking of the nests or eggs of migratory birds protected under the *Migratory Birds Convention Act*, which includes those designated at risk by COSEWIC and the federal *Species at Risk Act*. This prohibition applies anywhere migratory birds are found in Canada, including federal lands, provincial lands, territorial lands, First Nations lands and private lands. EC reiterates its recommendation provided in the technical

report for the July 2011 Public Hearings (CZN-EC EA0809-002 Technical Report - Issue 3.4.3, pg. 31-32) that all vegetation clearing should be conducted either before May 7 or after August 10, to avoid the migratory bird breeding season. If active nests are found during activities conducted outside of these dates, the area should be avoided until nesting is complete (i.e. the young have left the vicinity of the nest).

EC recommends that the Proponent implement its proposed monitoring of metal concentrations in the WSP2 and the use of scare tactics to deter birds from using the WSP2 should metal concentrations exceed the CCME water quality guidelines for livestock. As for the first Water Storage Pond, the Proponent should monitor and report bird use of the WSP2 using the approach outlined in their "Draft Wildlife Management Plan".

Section 2 - General Closing Comments

Following are general closing comments regarding the EA as a whole, for more detail please refer to EC's technical conclusions and recommendations submitted to the Board for the Prairie Creek Mine Project in its Technical Report Submission dated June 3, 2011 and presented at the Public Hearing on June 24, 2011; those conclusions and recommendations are not altered with the above review of the recent possible project modifications. Please refer to EC's June 3rd submission for details on our mandate, role and responsibilities with respect to this review.

EC believes that the migratory birds and species at risk aspects are mitigable with implementation of our recommendations. However, we do not have that level of confidence with respect to the topic of contaminant loading, incineration, and air quality. EC would like to reiterate our recommendations for management plans on each of these subjects. The Proponent has already developed outlines for them, and EC would like to simply anchor these commitments as recommendations from the Board.

EC is of the opinion that the issue of concentrate transport-related contamination is still outstanding, and the risks of contaminant loading from the transport of ore along the access road needs to be resolved. We understand that Environment and Natural Resources, GNWT, is of the same opinion and is in agreement with EC's comments and suggested mitigation measures on the subject. EC maintains that the bags proposed for concentrate storage are susceptible to tearing when exposed to the cold, sun, and/or precipitation, the fashion in which they are sealed is neither durable nor air-tight and could be compromised during transit or transfer. As well, the specifications of the concentrate dictate that under frozen conditions, concentrate would not remain in a contained block if released during a spill scenario. As such, secondary containment is the recommended mitigation measure. The Proponent has stated that they will conduct monitoring along the road alignment, and adjust practices if changes in zinc levels were detected. This could involve fairly extensive linear contamination, and EC feels that prevention is the better approach.

EC acknowledges the additional work undertaken by the Proponent, and would like to highlight that there are a number of outstanding initiatives underway which will inform the environmental assessment conclusions (e.g. Reference Condition Approach (RCA) value derivation, process water treatment options review, water storage options, and the ensuing predictions of receiving water quality). We also note the need for further broad evaluation of the proposed water management changes and water storage pond construction implications. While the Board may

determine some of these issues can be addressed with appropriate measures or in the regulatory stage, EC would have concerns with closing the public record prior to thorough assessment of the impacts associated with the proposed additional water storage options.

To conclude, Environment Canada would like to thank the Board for the opportunity to present our issues and recommendations. Should you have any questions or wish clarification on any aspect of this letter please do not hesitate to contact Jane Fitzgerald at (867) 669-4746 or jane.fitzgerald@ec.gc.ca.

Yours truly,



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