



August 3, 2011

Chuck Hubert
Environmental Assessment Officer
Mackenzie Valley Review Board
Suite 200, 5102 50th Avenue,
Yellowknife, NT
X1A 2N7

Dear Mr. Hubert

**RE: Environmental Assessment EA0809-002, Prairie Creek Mine
Possible Project Modifications related to Water Quality Objectives**

We refer to the letter from the Review Board on the above noted subject dated July 19, 2011.

As you know, during the June 23rd-24th public hearings in Fort Simpson, several parties expressed an interest in forming and participating in a committee to evaluate site specific water quality objectives (SSWQO) for the Prairie Creek Mine. Canadian Zinc Corporation (CZN) met with Aboriginal Affairs and Northern Development Canada (AANDC) on June 27, 2011 to collaborate in developing a framework for the proposed initiative. CZN and AANDC subsequently submitted their ideas to the Review Board on July 4, 2011. Both submissions included the evaluation, by CZN, of initiatives that would potentially lead to more stringent water quality objectives: a desk-based study of process water treatment alternatives; and, options for additional water storage.

In their letter of July 15, 2011 the Review Board elected not to specify a post-hearing process for further consideration of water quality objectives, but did encourage parties to meet to resolve outstanding issues prior to closing the registry on September 9th. In the mean time, CZN has continued to work on the process based on the steps described in our letter of July 4, 2011. A conference call was held with AANDC on July 26, 2011 to discuss progress (a meeting report has been submitted separately).

The desk-based study of process water treatment alternatives is nearing completion, and a report will be available before environmental assessment (EA) closure. However, work related to study results would be required post-EA. Options for additional water storage have also been evaluated. These consist of either additional capacity in the existing large pond which will become the Water Storage Pond (WSP), or the construction of a second WSP, which would constitute "possible modifications to the Prairie Creek Mine project that may result from meetings between CZN and parties regarding site-specific water quality objectives".

Consequently, as requested, CZN is providing an assessment, by Golder Associates, of additional water storage options (attached), including enhancing capacity of the existing WSP and a

conceptual design for a second WSP. This allows parties the opportunity to review and provide recommendations on possible modifications to project design during the current EA. Please note that the location of the proposed second WSP is the same as the site for a second pond permitted by Cadillac Mines in the 1980's, and some site investigation work had been completed. Please also note, however, that no decision has been taken by CZN regarding the adoption of an additional water storage alternative. This decision would be taken later when more information is available, including direction from the Boards.

Adverse impacts associated with additional capacity in the existing large pond which will become the WSP are not considered to be significantly different from those associated with pond rehabilitation, and therefore these will already have been considered in the EA process. There would be an incremental beneficial impact in that the additional storage capacity should allay concerns related to sufficient storage space to contain water during plant upsets and other unforeseen events, and the additional capacity may also lead to more stringent and achievable water quality objectives.

The conceptual design for a second WSP (attached) includes provision for detailed site investigation and design, including stability analyses. A double liner system has been proposed to ensure no leakage from the pond. This would also be verified by monitoring wells. Water would be delivered to, and returned from, the pond via pipelines. Appropriate safeguards will need to be put in place to minimize the potential for, and contain spills from, possible pipe rupture.

Golder Associates have also provided a vegetation and wildlife impact assessment for the second WSP site (also attached).

The beneficial impacts of the additional storage capacity that a second WSP would provide would be the same as for an expanded (first) WSP, except that these impacts would be magnified because of the considerably greater storage volume.

We note that the Review Board has requested final written submissions from parties by September 6th, and from CZN by September 9th. In order to respond in detail to review comments that may be received from parties on the technical material in this letter, we respectfully request that the Review Board consider setting an August 26th deadline for such comments.

We trust the above meets the requirements of the Review Board's July 19th letter.

Yours truly,
CANADIAN ZINC CORPORATION



David P. Harpley, P. Geo.
VP, Environment and Permitting Affairs