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July 4, 2011

Mr. Chuck Hubert
Mackenzie Valley Environmental Impact Review Board
#200 Scotia Centre
5102 – 50th Avenue
Yellowknife, NT X1A 2N7

Via email: chubert@reviewboard.ca

**Re: EA0809-002, Prairie Creek Mine, Canadian Zinc Corporation:
Post Hearing Process**

Dear Mr. Hubert,

Thank you for your letter of June 27, 2011 inviting us to provide comments on a process for resolving outstanding issues. Parks Canada believes there are three major categories of outstanding issues:

- Site-specific water quality objectives
- Tailings management
- Road project definition and impacts

We believe these outstanding issues can be resolved concurrently, concluding with final arguments. Our recommendations for the process and timelines are presented in the following table and are consistent with timelines proposed by Aboriginal Affairs and Northern Development Canada (AANDC).

Timeline	Step	Comments
Up to proponent	Submission of information by proponent on SSWQO, tailings management and road outstanding issues.	Other parties will be involved in portions of the SSWQO process as described by AANDC.
One month after the proponent submits information	Parties submit to MVEIRB an assessment of information which may include, where appropriate, revisions to recommendations made in technical reports.	
2 weeks	Parties (including Proponent) submit response to the assessment.	The final two steps provide fairness in responses.
2 weeks	Parties submit final argument.	



Attached we have detailed our rationale for why these issues need to be resolved prior to completion of the environmental assessment and what needs to be completed. At this point, Parks Canada does not consider that sufficient information and analysis exists to proceed to the permitting phase of the project.

In addition, on the final day of the hearings, Canadian Zinc Corporation suggested that if tailings and water balance predictions were wrong, two major mitigations were available; it was suggested that additional tailings could be put in the waste rock pile and an additional water storage pond could be built. This was the first mention of these approaches and we do not believe the feasibility and impacts/effectiveness of these potential mitigation options have been fully considered. We respectfully recommend the Review Board clarify if a new water storage pond and placing tailings in the waste rock pile are a part of the development, and if they are a part of the development, require an assessment of the impacts of this aspect of the development.

Sincerely,



Robert Kent
Field Unit Superintendent, Southwest NWT Field Unit
Parks Canada Agency

cc Eric Betsaka, Associate Superintendent, Nahanni National Park Reserve
Rob Prosper, Executive Director, Northern Canada, Parks Canada

Site-Specific Water Quality Objectives

Site-specific water quality objectives define the required condition of receiving waters and therefore accepted level of water quality impact from the project. Setting these objectives in the environmental assessment phase provides the Review Board with confidence that they have defined for regulators what impacts would be considered not significant. In addition, this definition is particularly important given the importance of water to local people and the ecological integrity to Nahanni National Park Reserve downstream of the mine.

Parks Canada supports the approach outlined by Aboriginal Affairs and Northern Development Canada (AANDC) to resolve outstanding issues related to site-specific water quality objectives. We believe this approach will ensure objectives are chosen that minimize the potential impacts on the ecological integrity of Nahanni National Park Reserve while considering the values of all involved parties.

Tailings Management

“Begin with the end in mind” is the best approach in mining to ensure that the impacts of a mine site are minimized 30, 50 and 100 years from now. Canadian Zinc has approached its mine design from this perspective by stating its goal is to place all tailings underground in the mine and leave no infrastructure in the Prairie Creek valley. At this point however, paste backfill predictions appear to be optimistic and no alternative mitigation has been proposed, raising concern if all generated tailings will completely fit underground and if not where they would be stored after mine closure. Canadian Zinc Corporation agreed to an undertaking to provide information on the tailings management model for assessment. Parks Canada believes there should be adequate time to review the model and provide analysis, as proposed by AANDC to ensure no significant adverse impacts are present from this project component.

Road Project Definition and Impacts

Spills

In our technical report and at the hearing, Parks Canada described the high probability of spills, the high consequence of spills, and therefore the potential for significant adverse environmental impacts associated with the proposed haul road. Similarly, the AANDC Technical Report highlighted the need for information on spill risk assessment during the environmental assessment phase: “Accordingly, the specific details of the spill contingency plan can be discussed and finalized during the regulatory phase of the project. However, during the environmental assessment phase, the proponent must describe the potential for spills to occur and the consequence (“significance”) to the

environment should a spill incidence arise” Pg 51. In addition, Nahanni Butte Dene Band highlighted in their technical report the high likelihood of a spill and the need for appropriate prevention and response.

Canadian Zinc Corporation’s spill risk analysis is general and their assessment of quantitative values (e.g., grade) of limited utility in our assessment of significance. For example even though a piece of road 30 km long may have an average grade of 1%, it may not account for 1 or 2 steep ravines with grades exceeding 10% which are present along this same 30 km. The specific locations may pose a significant spill risk of a major spill. In addition the derivation of information is not sufficiently clear; for example we don’t know how risk determinations were made and whether the different products were considered. There is remaining uncertainty in the information presented and the assessment conducted as to whether mitigations will be effective in minimizing the probability of a spill and in ensuring sufficient response, thereby ensuring significant adverse impacts are reduced or eliminated. We therefore have the following request (consistent with our Technical Report) to help ensure sufficient information and analyses are completed at the environmental assessment stage to ensure significant adverse impacts are reduced or eliminated.

Request

Conduct a spatial risk assessment along the length of the road that considers the frequency of spills, the consequence of spills, and the challenges of clean up. The assessment should lead to a fuller assessment of the potential impacts of spills, appropriate mitigation, and their significance. The information requested should include:

- (a) evaluation of locations where the frequency of potential spills is high, including, without limitation, steep grades, hairpin turns, road width including minimum widths, and landform as it relates to the road surface. Where possible, this should include measurable/numerical limits (e.g. grade, number of switchbacks exceeding xxx % turning radius, road bed substrate);
- (b) evaluation of locations and seasonal conditions where the environmental consequence of a spill is high, including, without limitation, the karst landforms, bull trout or other aquatic spawning areas, fish bearing streams, trumpeter swan or aquatic furbearer habitat, Polje Creek, and shoulder seasons conditions that may increase movement of contaminants;
- (c) evaluation of locations and seasonal conditions where spill response and/or clean-up is challenging, including, without limitation, difficulties in mobilizing equipment, or containing contaminants;
- (d) identification of the impacts of spilled substances, including all substances that may be transported over the road, including, without limitation, sulphuric acid, ore concentrate, process reagents, and fuel. This should include an evaluation of worst-case scenarios related to the above-noted risk factors.

(e) identification of mitigation considerations to address the risk factors identified above, including specific design and operational mitigations to reduce the risks.

(f) identification of appropriate spill response times for all sections of road based on the analysis above including the following factors: frequency of a spill, potential consequences, ability to respond, substances that could be spilled, and challenges with mobilization of equipment and resources to sites.

Water withdrawal/aggregate sources

As described in our technical report and at the hearing, the proponent has not provided complete quantity estimates and information about the locations of sources of water and aggregates for road construction and use. We believe this information is required in the environmental assessment stage because the terms of reference identified it as required, the level of detail is still general (significant additional information will be required at permitting stage) and it will enable Parks Canada to be confident we understand what activities will occur within Nahanni National Park Reserve and the potential impacts. At the hearing, the proponent clarified the sources and therefore the need for information is now narrower.

Request

1. Revise aggregate estimate to include the whole road and to include aggregate as mitigation for permafrost based either on the results of a permafrost assessment or a very conservative outline of all areas that could reasonably be underlain by permafrost.
2. Revise estimates for water withdrawal to include the whole road.
3. Conduct bathymetry mapping of road water source (Mosquito Lake) and an assessment of potential impacts if the water predicted is withdrawn.
4. Provide an assessment of the location and type of material of aggregate sources, including at the identified location at Sundog Creek and potential impacts of extracting aggregate at that location. Also provide options for minimizing the amount of aggregate required to be removed in the park.