June 19, 2009

Alistair MacDonald
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
5102 50th Avenue,
Yellowknife, NT
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Dear Mr. MacDonald

RE: Environmental Assessment EA0809-002, Prairie Creek Mine
Response to Comments on Draft Terms of Reference and Draft Work Plan

We refer to the May 11, 2009 draft Terms of Reference (“TOR”) and draft Work Plan issued by the Mackenzie Valley Environmental Impact Review Board (“MVEIRB”) regarding environmental assessment (“EA”) EA0809-002, and to comments received by the MVEIRB dated June 12, 2009. Canadian Zinc Corporation (“CZN”) provides the following response to some of those comments.

INAC

On page 2 under the heading ‘General’, a suggestion is made to provide the developer with guidance as to the meaning of the many references to risk assessment in the TOR. An example is given, which is Appendix 4 of Parks Canada’s scoping submission. While CZN will appreciate any guidance the MVEIRB wishes to give, please note that CZN intends to consult the relevant regulatory agencies on the appropriate content of such risk assessments with the intention of satisfying expectations.

Environment Canada (EC)

On page 3 under the heading ‘Section 3.3.3’, EC recommends that preliminary drafts of all contingency plans be included in the Developers Assessment Report (DAR). CZN is not in favour of this approach. While we agree that sufficient information needs to be provided to confirm that the proposed contingency planning is both appropriate and feasible, we do not see the need for formal preliminary plans at this stage as these tend to be lengthy and will further enlarge the DAR. The normal course is for such plans to be requested as conditions of permits and licences, and for approved plans to be in place before works can proceed. In addition, it is premature to write such plans before all project designs have been finalized during the EA process.
On page 3 under the heading ‘Section 3.3.8’, with reference to the handling and transport of raw ore and concentrate, EC comment on Tamerlane being required by the MVLWB to produce a contaminant loading management plan. CZN urges caution be taken regarding a comparison since Tamerlane will haul concentrates in bulk in open trucks to the railhead year round, whereas the proposal for Prairie Creek consists of bagged concentrates being hauled in winter only.

**Natural Resources Canada (NRCan)**

In their comments, NRCan recommended the following text be inserted in the TOR:

> “Identify the location and extent of the Nahanni North Karst landform and describe its structure, permeability, stability, and other relevant characteristics of this landform (e.g. location of sinkholes, poljes) and include the occurrence of carbonates within the EA Study Area, a geophysical and drilling information based assessment of karst risks to project elements, as well as an assessment of the potential existence/formation of subsurface drainage paths due to karst.”

We have been in contact with the author of the NRCan letter to better understand their concerns. It appears the above text originates from someone other than the author, and it is not clear if the writer fully understands the project area and elements. NRCan undertook to investigate further and report back, perhaps in the form of a letter to the MVEIRB at a later date. At this stage, it is not clear which of the project elements the writer had in mind. Notwithstanding this, CZN feels a requirement to acquire ‘geophysical and drilling information’ is too narrow and prescriptive, and too broad a requirement if it applies to all project elements. CZN undertakes to evaluate karst risks to project elements, but the appropriate tools to do so are not clear at this stage, and it is premature to assume that geophysical and/or drilling investigation is appropriate. Therefore, CZN recommends that the words “geophysical and drilling” be deleted from the above text.

**GNWT**

The GNWT request the inclusion of a Spill Response Plan. As noted above, CZN is not in favour of such plans at this stage. There is no doubt that a suitable plan can be produced, but the appropriate time would be the permitting stage, not the EA stage.

**CPAWS**

Under the heading ‘ToR Page 12, section 3.1.3 and section 3.1.4’, CPAWS recommends that sections 3.1.3 and 3.1.4 also reference Section 3.3, Impacts on the Biophysical Environment. This would not be logical. As we understand it, Traditional Knowledge can be used to formulate the project, but is not relevant to the assessment of impacts on the environment. Further, ‘assessing the impacts of the environment on the development’ in a section where impacts on the environment are assessed does not make sense.

Under the heading ‘ToR Page 17, General Items 5’)’, CPAWS states that CZN’s current LUP #MV2003F0028 “does not permit CZN to operate and use the winter road in connection with the
proposed mining operations”, and that a new LUP application may be required. CZN does not see how this is relevant to the draft TOR given that CZN understands the MVEIRB has included the winter road in the scope of development, and use of the road for mine operations is in the scope of assessment and is part of the EA.

Under the heading ‘ToR Pages 20-22 3.2.2, CPAWS recommends that a flood analysis and assessment of the stability of the flood protection works be required, as a flood analysis was unable to be completed for Water Licence MV2001L2-003 because limited data was available. We refer to our January 19, 2009 letter to the MVEIRB which contained the following advice:

“Comments are made with respect to a flood analysis completed for the main flood protection dike for the site. Ecojustice comment that a Probable Maximum Flood (PMF) analysis was not completed because detailed data are required. Examination of the documents referred to (rfr 23 of 35) provides more background on this issue, and explains that a true PMF analysis is not possible because a lengthy time period of data is required, and such data do not exist. The magnitude of the PMF was approximated by Hay & Company Consultants Inc. (“Hayco”) on behalf of CZN using two different methods. The higher flow volume of the two was then used to compute a flood profile (elevations). The elevations computed were well below those used to select the height of rip-rap armour of the dike. The dike itself is much higher.”

“In performing their analysis, Hayco used 16 years of data from a Water Survey of Canada hydrometric station on Prairie Creek that provided continuous monitoring from 1974 to 1990. Ker Priestman performed their analysis in 1980, and so used 6 years of this data. Comparable data has not been collected since 1990. Mine projects are normally designed based on 1-2 years of local data.”

“Ecojustice refer to a 200 year flood standard used in a recent geotechnical assessment of the flood protection works. This is misleading. EBA Consultants and Hayco both recommended the use of a 1 in 200 year return period as the appropriate standard for considering the hydrologic stability of the dike because the main pond was not in use. As noted above, the rip-rap armour and dike were built to the much higher standard of the estimated PMF.”

Under the headings ‘ToR Section 3.3.10 Page 30 item 2b’ and ‘Work Plan Page 11. Table 2’, CPAWS discusses a need for further wildlife field studies, citing comments from GNWT (“ENR (Environment and Natural Resources) strongly urges CZN to commence baseline wildlife studies along the road corridor and other project areas to support future development and activities at the site.”) and the Water Board (“The (MVLWB) Board notes the lack of specific wildlife habitat information that is currently available and due to this lack of information is unable to set specific terms and conditions for protection of specific wildlife habitats.”). Following the GNWT’s comments, CZN undertook a wildlife survey of the winter road and mine area in April 2007. The comments from the Water Board need to be taken in context. The Water Board’s task was to set appropriate conditions in a land use permit. We believe the Water Board were not saying that wildlife habitat data do not exist, rather that in the absence of specific data (i.e, a sheep calving area), no specific conditions were possible. CZN’s wildlife consultant has recently been in contact with Nic Larter, the Regional Wildlife Biologist for the GNWT. Mr Larter indicated that
CZN has carried out sufficient wildlife surveys and the information is adequate, and that the information needs to be assessed in conjunction with other existing databases and incorporated as part of the EA process. CZN will be working closely with the GNWT and Parks Canada to do that.

Please note that, for the sake of brevity, CZN has not responded to all of the comments submitted to the MVEIRB. Please also refer to CZN’s comments of June 12, 2009 which address many of the other comments.

Yours truly,
CANADIAN ZINC CORPORATION

David P. Harpley, P. Geo.
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