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April 9, 2009

Tawanis Testart
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
Box 938, 5102-50th Avenue
Yellowknife NT X1A 2N7

Re: Draft Terms of Reference for the Environmental Assessment of the Giant Mine Remediation Plan and Draft Work Plan (EA0809-001)

Dear Ms. Testart

Please consider this letter and attachment as my comments on the Draft Terms of Reference for the Environmental Assessment of the Giant Mine Remediation Plan and revised Draft Work Plan.

To say that I was very disappointed with the Board's Reasons for Decision on the scoping of this environmental assessment would be an understatement. While my personal disappointment is of little importance to the Board, the narrow scoping has significantly eroded the value of this environmental assessment for residents of Yellowknife and future generations. Some of the most important issues such as alternatives and soil remediation standards are now excluded from consideration. I have questioned the value of my continued participation. I have concluded that there may still be some gains made in the areas of monitoring, commitments to on-going research and development, and independent oversight. This decision will re-evaluated after the final terms of reference are released.

I wish to again draw to the attention of the Board the issue of a lack of participant funding for this environmental assessment. I have raised this issue with the Board and the developer several times to no avail and have not received a written reply. In every other part of southern Canada there is an established and guaranteed right to participant funding for federal developments such as this one. With the technical complexity of this development, I am pleased to see that the Board has retained its own technical experts but this is not a replacement for participant funding. The quality of this environmental assessment and public involvement will continue to suffer as a result of this failure.

I have reviewed the Draft Terms of Reference to the best of my ability as a private citizen and offer the attached comments. In preparing these comments, I relied upon my personal experience with the Giant Mine over the last 20 years and the Environmental Impact Statement Guidelines prepared for the Environmental Assessment of the Sydney Tar Ponds and Coke Ovens Sites Remediation Project dated August 30, 2005 (http://www.ceaa-acee.gc.ca/050/document-eng.cfm?DocumentID=10263). I have also attached these Guidelines as an electronic file so that the Board, staff and other parties are aware of what has been done with regard to another major remediation project.

I have no comments to make on the revised Draft Work Plan other that it is not clear to me who the Responsible Ministers may be for this environmental assessment. I have previously requested clarification from the Board on who the Responsible Ministers are and reiterate that request.

I also wonder whether the Board has contacted Natural Resources Canada regarding the availability of its considerable expertise in mining and permafrost.

Should you wish any clarification of this submission, please contact me.

Sincerely,

Kevin O'Reilly

Attachments

1. Comments on the Terms of Reference for the Environmental Assessment of the Giant Mine Remediation Plan
2. Environmental Impact Statement Guidelines prepared for the Environmental Assessment of the Sydney Tar Ponds and Coke Ovens Sites Remediation Project

Attachment 1

COMMENTS ON THE
DRAFT TERMS OF REFERENCE FOR THE ENVIRONMENTAL ASSESSMENT OF THE GIANT REMEDIATION PLAN
EA0809-001

2. Referral to Environmental Assessment

Page 4—Third paragraph, second sentence. The March 31, 2008 referral letter from the City of Yellowknife was not solely based on "potential adverse environmental impacts within its municipal boundaries as the reasons for the referral". The letter also indicates that public concern was a basis for referral as follows (see page 2 of the letter):

> As a consequence, there are serious issues respecting arsenic contamination and environmental remediation which are of concern to the City and people of Yellowknife, and which may have significant adverse effects on the environment in the City. Many City councilors [sic] have received e-mails from residents that voice concerns regarding remediation of the Site. In addition, at a Council Meeting held on March 18, 2008, Council heard from concerned citizens with respect to the planned clean-up of the Site. Please find attached hereto as Schedule "C" copies of the submissions that were heard at that Council meeting.

3. Scope of Development

Page 5—First paragraph, first sentence, refers to the "clean up" of the Giant Mine. While this may be true of some of the physical works and activities, it would be technically incorrect to refer to the frozen block method for arsenic storage as a "clean up" as this alternative is not a permanent solution but a perpetual care management option. Please change the words "clean up" to something more appropriate such as "remediate" or "manage".

There is a typographical error in the last sentence where the underlined words should be added as follows: "The development as described below is consistent with the development description found in the Giant Mine Remediation Plan..."

The bulleted list of physical works and activities should be amended to include all monitoring activities and any related work (e.g. thermistor cables, additional boreholes).

4. Scope of Assessment

Page 6—Geographic Scope—It is not clear whether the removal of any contaminated soils outside the surface lease area would be within the scope of the assessment. For greater clarity, the geographic scope of the assessment should be set in such a way that it captures the geographic locations of all of the physical works and undertakings proposed is section 3, regardless of whether those are on or off the Reserve R662T.

Page 7—Temporal Scope—Third Paragraph—I am very concerned that the Review Board has taken the position that future licences or other authorizations offer the best avenue to address any changes to the development or the environment. I am of the view that s. 157.1 of the *Mackenzie Valley Resource Management Act* will be used in the future to prevent any further public reviews of any and all remediation activities at the Giant Mine:

> s. 157.1 Part 5 [Mackenzie Valley Environmental Impact Review Board] does not apply in respect of any licence, permit or authorization related to an undertaking that is the subject of a licence or permit issued before June 22, 1984, except a licence, permit or other authorizations for an abandonment, decommissioning or other significant alteration of the project.

The Giant Mine was the subject of water licence prior to June 22, 1984 and once a further licence is issued for implementation of the Remediation Plan, it will be very difficult to prove that there is the need for a significant alteration beyond the frozen block approach. I respectfully disagree with the Board's scoping decision on this matter and its use in the draft terms of reference.

5. Terms of Reference

Page 8-9—General Considerations—The criteria listed here are acceptable but there should be at least two additions. Firstly, the developer should be required to disclose whether there is likely to be any differential costs, benefits or impacts for any identifiable individuals or groups such as women, Aboriginal people, or others. This will begin to get at the issue of the distribution of costs and benefits. Secondly, the developer should also be required to document and disclose any views on significance that were communicated to it by individuals or groups during the development of the Remediation Plan, or views expressed during the preparation the Developer's Assessment Report, and how it responded to such views.

Page 10—Key Lines of Inquiry—In my view, there should be at least two other Key Lines of Inquiry that were the subject of much discussion during the scoping hearing as follows:

- Commitments that should be made by the developer regarding on-going research and development into a more permanent solution for the underground arsenic; and
- How the developer can best build community confidence and involvement regarding the implementation and monitoring of the project, including public reporting, access to information and independent oversight.

Page 11—Specific Requirements B. Developer—Point c should be amended to include not just federal matters but territorial and municipal, and a description of how best practices have been adopted by the developer.

Two further points should be added to the list as follows:

e. A description of the process and the certainty of funding that the developer will use to finance the project, its monitoring and any on-going research and development into a more permanent solution for the underground arsenic.

f. A description of the corporate and management structure of CARD in relation to DIAND and any other involved federal and territorial government agencies.

Page 13—Specific Requirements D. Development Description—Add the following to the end of 7): "and how these will be monitored and maintained".

Add the following to the end of 8): "including any temporary and permanent measures to control fugitive dust from the tailings disposal areas."

Amend 13) to the following: "Estimated capital, operating and monitoring costs for the development on a year-by-year basis for the life of the development."

Add the following: "15) Describe the approval process for each development component, including the applicable legislation, regulatory agency in charge, and the status of the approval process."

Page 13—Specific Requirements E. Accidents and Malfunctions—The developer should be asked to develop a number of scenarios that represent potential risks such as forest fire, seismic and volcanic activity, flooding, vandalism and sabotage, all resulting possibly in some sort of catastrophic failure. A worst case scenario should be developed and only then should emergency response plans be prepared and presented as part of the Developer's Assessment Report.

Page 16—Specific Requirements F. Public Consultation—Add the following point: "6) Describe any plans the developer has to continue public consultation and involvement during implementation of the project and afterwards, with particular regard to reporting of monitoring results and any on-going research and development into a more permanent solution for the underground arsenic. This description should also cover how the developer intends to handle any public complaints and the dispute resolution process that will be applied."

Page 16—Specific Requirements H. Human Environment—This section is particularly weak in terms of any guidance for the developer. The developer should assess the impacts of the proposed development, including the following aspects of the human environment:

- traffic on the Ingraham trail and possible effects on access for residents and emergency services;
- any differential impacts likely to be felt by identifiable groups or individuals;

- effects on local infrastructure and utility costs that may result from the development's demands on these facilities and services.

Noise from the development, both during implementation and construction, and monitoring, has not been covered anywhere in the terms of reference.

Page 17—Specific Requirements H-1. Economy—Add the following point: "5) Plans to monitor and report to the public on employment and contracting commitments over the life of the development."

Page 22—Specific Requirements I-4. Wildlife and Wildlife Habitat—Please add "noise" as a potential impact from the development.

Pages 23-24—Specific Requirements J. Arsenic Containment—Please amend 1) b. to the following (additions underlined): "With the best available information, a prediction of the amount of active freezing, the amount of passive freezing, power requirements and numbers and general location of thermosyphons that will be necessary to achieve stability (stability being a state where active management of the site is no longer necessary). Describe the monitoring and maintenance requirements of the thermosyphons and how often and under what circumstances, they will be replaced."

Please add the underlined portion to 5) "Has the developer contemplated a reconsideration of the frozen block method should a technological advance or change in the environment make it either necessary or advantageous to do so? Has the developer contemplated assigning resources to make it possible to periodically review these questions? Is there a defined research and development program, including any necessary resources, to investigate and report on a more permanent solution for the underground arsenic?

One of my greatest concerns regarding the frozen block alternative for management of the underground arsenic is the reversibility of the process and whether it will prevent other options in the long terms such as in-situ treatment, removal and reprocessing or other methods of a more permanent nature. There is nothing in this section that deals with these matters and I propose the following:

"11) Describe how the frozen block would be intentionally thawed, how long this would take, and what the risks and impacts may be. Describe how and if the frozen block method will preclude or limit future management and treatment options for the underground arsenic including those that may involve in-situ treatment, and removal and reprocessing "

Page 25—Specific Requirements K. Environmental Monitoring—This section really only deals with monitoring of the environment and not monitoring of the development per se, to ensure that it is functioning as it should. There is also a need to provide some rationale for why monitoring is taking place and how the descriptions of the programs can be made more systematic and consistent. The Sydney Tar Ponds EIS Guidelines

(page 27) provide some helpful ideas in this regard and a relevant section is shown below:

> The Proponent shall include a framework upon which compliance and effects monitoring will be based throughout the life of the proposed project, including abandonment. Monitoring programs must be designed to determine the effectiveness of the implemented mitigation measures. Monitoring should be designed to incorporate baseline data, compliance data, and real time data. As part of the monitoring program, the Proponent shall describe the compliance reporting methods to be used, including reporting frequency, methods and format.
>
> The Proponent shall include a proposed monitoring schedule which indicates the duration of effects monitoring following Project completion.
>
> The description of the compliance and effects monitoring program shall include any contingency procedures/plans for addressing potential exceedances of environmental protection standards, guidelines or approvals.
>
> The compliance and effects monitoring program shall also indicate who will be responsible for ongoing monitoring as well as any plans to make monitoring results available for peer review or public review.
> Discuss the need for, and requirements of, a follow-up program, including consideration of:
>
> - the need for such a program and its objectives;
> - the main components of the program;
> - how it would be structured;
> - the roles to be played by the Proponent, regulatory agencies, Aboriginal people and others in such a program;
> - possible involvement of independent researchers;
> - the sources of funding for the program; and
> - information management and reporting.

The following wording is suggested to cover the aspect of project monitoring (rename this entire section "Monitoring" and add the following point and renumber the others in the draft so as to follow):

"1) a. The monitoring regime to ensure that the development components are working the way they were intended. Describe in detail the monitoring locations, frequency, duration, triggers or thresholds for actions (including what those actions would be), and

internal management systems to ensure that the results are properly assessed and appropriate actions taken, with particular regard to the frozen block method."