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Staff Report

Applicant: Aboriginal Affairs and Northern Development Canada	
Location: Giant Mine, NT	Application: MV2012L8-0010
Date Prepared: March 22, 2013	Meeting Date: March 28, 2013
Subject: Board Confirmation on Applicability of Paragraph 119(b) of the Mackenzie Valley Resource Management Act	

1. Purpose/Report Summary

The purpose of this Staff Report is to obtain a confirmation from the Mackenzie Valley Land and Water Board (MVLWB or the Board) on the applicability of paragraph 119(b) of the Mackenzie Valley Resource Management Act (MVRMA) as presented in a new Type B Water Licence (WL) application, submitted by Aboriginal Affairs and Northern Development Canada – Contaminants and Remediation Directorate, Giant Mine Remediation Project (AANDC-CARD).

2. Background

- December 19, 2012 – WL application received;
- January 2, 2013 – WL application deemed complete and sent out for review and comment;
- February 15, 2013 – Comment deadline;
- March 8, 2013 – Responses to comments received from AANDC-CARD; and
- March 28, 2013 –WL application presented to the Board.

3. Discussion

This WL application package is for a Type B WL for the deconstruction of the roaster complex (see below for description) and underground stabilization activities at the Giant Mine site. AANDC-CARD is requesting that the MVLWB "...via section 119(b) of the Mackenzie Valley Resource Management Act proceed to the licensing phase for these two activities". Included with this application are stamped letters from independent

engineers outlining the risks associated with the deterioration of the roaster complex and underground workings and the urgent need for this work to occur.

The roaster complex is a group of highly contaminated industrial process structures including the following:

- Mill Pipe Shop/AC Roaster Building
- Cottrell Precipitator
- Roaster Stack and Roaster Stack Fan House
- Calcine Plant
- Dorrco Roaster Building
- Silo Load-Out and Weight Scale
- Bag House
- Exterior Flue Network

In simplistic terms, all of the components listed above and associated hazardous wastes will be taken down and removed. For further details on the roaster complex deconstruction please refer to the Detailed Project Description document included with the WL application.

The proposed underground stabilization work includes the following:

- Reinforcing existing and construction of new bulkheads to prevent arsenic trioxide within the chambers from spreading deeper into the underground workings or into the environment;
- Filling the voids between the arsenic trioxide dust and the crown pillars in the underground chambers and stopes to prevent failure or collapse;
- Filling empty stopes adjacent to arsenic trioxide filled chambers to prevent a "domino effect" failure that releases arsenic trioxide dust deeper into the mine or to the environment; and
- Filling empty stopes in sensitive areas such as those under Highway 4 and Baker Creek to prevent sinkholes, surface cracks and other surface deformations from forming that may either permit water to enter the underground workings or create physical risks to worker and public safety.

- Underground Stabilization Detailed Project Description, Page 10

It is important to note that these two activities are currently part of Environmental Assessment (EA) EA0809-001 for the remediation of the entire Giant Mine site. This EA is not yet complete. However, AANDC-CARD and the Government of the Northwest Territories (GNWT) wish to

proceed with these activities on an accelerated timeline in order to protect the environment, and in the interest of public welfare, health and safety. Presently, the Report of EA is expected to be released to the Minister of Indian Affairs and Northern Development this Spring. There is no way of knowing what recommendations this report will contain or if the Minister will endorse this report. Depending on what is to happen process wise, the timelines for AANDC-CARD to get a WL for the entire remediation project (which again includes these two activities) will vary.

The WL application along with draft WL conditions were circulated for review and comment (see Staff Report for WL for further information). Reviewers were also asked for any comments on the matter of the applicability of section 119(b) for this application.

Comments received on the applicability of paragraph 119(b) are summarized as follows:

- Environment Canada (EC) did not comment on this issue although they did provide comments on the draft WL.
- Fisheries and Oceans Canada (DFO) indicated that this decision is at the discretion of the Board.
- Yellowknives Dene First Nation (YKDFN) supported the application of section 119(b) for the Roaster Complex deconstruction work but are not supportive of the underground stabilization activities proceeding through the licensing phase.
- Alternatives North (AN) is not in support of the project proceeding with the licensing phase for a number of reasons and have asked the Board to consider holding a public hearing on this application.

The Mackenzie Valley Review Board (Review Board) responded to a request for comment from this Board on March 13, 2013. In this correspondence, the Review Board states that...

Although these activities were originally included in the scope of the ongoing environmental assessment of the Giant Mine Remediation project, the developer describes the emerging conditions as unacceptable emergency situations for which it is applying subsection 119 (b) of the Mackenzie Valley Resource Management Act. The Review Board accepts that this work is necessary to protect human health and the environment, and is willing to exclude these specific activities from the scope of the development undergoing assessment, based on the considerations described in its March 13th 2013 letter to the developer.

Considering the large quantity of arsenic in the roaster and the close proximity of a large population, the Review Board encourages the Mackenzie Land and Water Board to apply an appropriate level of caution with regard to this emergency work.

4. Comments

The Review Board has confirmed that these activities are excluded from the scope of the EA.

The WL application contained a document titled "Site Stabilization Plan for the Giant Mine Remediation Project" dated October 14, 2011. This document contained a significant amount of unreadable text (i.e. the text was "blacked out" or redacted). Board staff reviewed the document and determined that it was unacceptable in its current form and did not lend itself to an open and transparent review process. Staff presented AANDC-CARD with a number of options to proceed. AANDC-CARD re-submitted the document with the redactions reduced to a minimum. This re-submitted document forms part of the accepted application.

5. Review Comments

For further information please refer to the attached Comment Summary Table and associated correspondence.

6. Security

Not applicable.

7. Conclusion

There are professionally endorsed documents and evidence within the WL application that indicate this work for the deconstruction of the roaster complex and the underground stabilization work is of an urgent nature. There are environmental and human health hazard risks associated with both of these activities. The Review Board has confirmed that these activities are excluded from the scope of the ongoing EA.

8. Options

Options for the Board to consider in proceeding with this request from AANDC-CARD include the following:

1. Deny the request to proceed with licensing and therefore do not issue a WL for any of these activities.
2. Confirm that this application is eligible for permitting and can proceed to the issuance of a WL for both of these activities.

3. Confirm that one or the other of these activities (the Roaster Complex Deconstruction or the Underground Stabilization Work) are eligible for permitting and deny the other.

The Board could also choose to hold a public hearing at any time on this application and/or request further information from any of the parties involved.

9. Attachments

- Comment Summary Table;
- WL Application & Related Links:
NOTE: These are large files and may take a long time to load

WL Application – Part 1 (includes support documentation for sec. 119)

WL Application – Part 2 (includes underground project description, WMP, EMP)

WL Application – Part 3 (includes roaster deconstruction project description, WMP, EMP)

WL Application – Part 4 (Emergency Response Plan)

WL Application – Part 5 (Arsenic Trioxide info)

WL Application – Part 6 (Communications Plan)

WL Application – Part 7 (Ambient Air Quality Monitoring info)

WL Application – Part 8 (includes draft of Application to the parties, various questions and answers, engagement records)

WL Application – Part 9 (Site Stabilization Plan included with the WL Application)

WL Application – Part 10 (various maps)

Site Stabilization Plan (re-submitted, minimally redacted version submitted Jan 2013);

- Review Comments from Yellowknives Dene First Nation (in full);
- Review Comments from Alternatives North (in full);
- Letter to MVEIRB from MVLWB;
- AANDC-CARD Response To Reviewer Comments;
- Mackenzie Valley Review Board Correspondence dated March 13, 2013 to The Giant Mine Remediation Team (Developer);
- Mackenzie Valley Review Board correspondence to MVLWB re Emergency Work at Giant Mine Site dated March 13, 2013;
- Draft Reasons for Decision

Respectfully submitted,



Lynn Boettger
Regulatory Officer

Giant Mine Roaster Complex Deconstruction Underground Stabilization - MV2012L8-0010
 Section 119 (b) Determination - AANDC- Giant Mine, NT

#	Reviewer	Topic	Reviewer Comment	Reviewer Recommendation	Company Response	Board Staff Recommendation	Board Decision
1	DFO	Sec 119	Regarding comments on the Giant Mine Remediation Team's request that the MVLWB proceed directly to licensing as per Section 119(b) of the MVRMA, it is DFO's understanding that this decision is solely within the mandate, and at the discretion, of the Board.	Not Applicable	The evidence before the Board demonstrates that the deteriorating condition of the roaster complex and the instability of the underground chambers and stopes constitutes an emergency. Technical evidence from independent engineers and the results of the Project Team's internal risk assessments were provided in the application package and summarized in the covering letter to our response package.	Not Applicable	
2	YKDFN	Sec 119 - Roaster Complex Deconstruction	The Yellowknives Dene have reviewed the application and are prepared to support the s.119 exemption for the Roaster, but not for the underground. FOR FURTHER INFORMATION SEE LETTER FROM YKDFN DATED FEBRUARY 15, 2013.	YKDFN accept Mr. Schmidtke's experience and <i>[sic]</i> credentials as a qualified person and in no way wish to interfere with a response to this emergency.	The Project Team notes the support of the YKDFN with respect to roaster deconstruction.	Not Applicable	
3	YKDFN	Sec 119 - Underground Stabilization	The Underground Stabilization Detailed Project Description provides no such declaration. YKDFN do not doubt that the site is deteriorating and there is some risk, but the evidence provided does not meet the threshold in the legislation. FOR FURTHER INFORMATION SEE LETTER FROM YKDFN DATED FEBRUARY 15, 2013.	This part of the 'Site Stabilization Plan' does not meet the statutory test set out and cannot be severed from the EA.	The evidence before the Board demonstrates that the condition of the underground workings constitutes an emergency. Please refer to our covering letter for our response package and to the letters provided by AECOM and Golder Associates dated December 17, 2012 for a complete discussion on the evidence.	The Board will need to confirm the applicability of paragraph 119(b) as it relates to this application.	

Giant Mine Roaster Complex Deconstruction Underground Stabilization - MV2012L8-0010
 Section 119 (b) Determination - AANDC- Giant Mine, NT

#	Reviewer	Topic	Reviewer Comment	Reviewer Recommendation	Company Response	Board Staff Recommendation	Board Decision
4	Alternatives North	Sec 119	<p>Following the circulation in October 2012 of a draft water licence application and our comments of November 5, 2012 that questioned the evidence of an emergency situation at the Giant Mine, AANDC finally had its engineering consultants reassess the Roaster Complex and clearly state that it is in a "state of emergency" in the letter from AECOM dated December 17, 2012. We note that the memo from Golder Associates dated December 17, 2012 states that the underground work is needed "to avoid a failure and subsequent emergency situation". This is not the same as a response to an emergency and in our view, fails to meet the standard required for s. 119(b) exemption.</p> <p>FOR FULL DETAILS SEE LETTER FROM ALTERNATIVES NORTH DATED FEBRUARY 15, 2013 AND VARIOUS ATTACHMENTS.</p>	<p>- AN requests that should the MVLWB issue a water licence for this work, that a Public Engagement Plan similar to the Talston facility water licence MV2011L4-0002 – NTPC (Taltson) condition B.7 be required for the approval of the MVLWB for this undertaking....</p> <p>- We believe that is imperative to request more information of the applicant, particularly in relation to dust suppression and monitoring, for review and approval before any work begins at the site. It may be more reasonable to request that the contractor apply for the water licence as there will be more information available on the specific methods to be used for the work, mitigation and monitoring. It may also be advantageous to split the application into two parts giving higher priority to the roaster complex deconstruction....</p> <p>- We ask that in the absence of detailed dust management and monitoring plans for arsenic emissions, that the MVLWB consider a public hearing on this application.</p>	<p>Please refer to the covering letter for our responses to the use of Section 119; requirement for an Engagement Plan; and the request for a public hearing to address dust and air quality issues.</p> <p>As the custodian of the Giant Mine site, Aboriginal Affairs and Northern Development Canada must be the Licensee, not the contractors on site. Regulation of the site would be piecemeal if individual contractors applied for their own licenses, potentially resulting in increased risk to the environment and worker health and safety.</p>	<p>NOTE THAT THESE STATEMENTS ARE EXCERPTS FROM ALTERNATIVES NORTH LETTER DATED FEBRUARY 15, 2013. PLEASE SEE COMPLETE LETTER/ATTACHMENTS FOR FURTHER DETAILS.</p> <p>The Board will decide on how to proceed with this application. It should be noted that this work is currently undergoing an environmental assessment. Public hearings on the Giant Mine Remediation Project were held by the Review Board in September 2012.</p>	
5	Alternatives North	AANDC Dec. 19, 2012 Covering Letter (Reviewer Comment Table - Row 15)	<p>This letter does not clearly indicate whether the proposed undertaking is in response to an emergency at the Giant Mine site. No evidence is contained in the letter that the applicant intends to carry out the work forthwith.</p>	<p>AANDC and GNWT should clearly indicate, whether in their respective views, the proposed work is in response to an emergency at the Giant Mine site and provide evidence that the work is to be carried out forthwith with a clear schedule including details on contracting.</p>	<p>The evidence before the Board demonstrates that the condition of the underground workings constitutes an emergency. Please refer to our covering letter for our response package and to the letters provided by AECOM and Golder Associates dated December 17, 2012 for a complete discussion on the evidence.</p>	<p>The Board will need to confirm the applicability of paragraph 119(b) as it relates to this application.</p>	

Giant Mine Roaster Complex Deconstruction Underground Stabilization - MV2012L8-0010
 Section 119 (b) Determination - AANDC- Giant Mine, NT

#	Reviewer	Topic	Reviewer Comment	Reviewer Recommendation	Company Response	Board Staff Recommendation	Board Decision
6	Alternatives North (Reviewer Comment Table - Row 17)	Golder Associates Dec. 17, 2012 Memo	This memo does not clearly state that the underground stabilization work is necessary in response to an emergency at the Giant Mine site. It states that the work is to "avoid a failure and subsequent emergency situation". We also understand that AANDC has contracted for drilling of some of these sites over this winter and that this work may now be complete, pursuant to land use permit MV2012S0019.	AANDC should provide any further evidence it has from the drilling done under land use permit MV2012S0019 to support its attempt to use s. 119(b) of the MVRMA for the underground stabilization part of the application.	The drilling program that took place this past winter investigated areas along Baker Creek to determine bank stability related issues under the Design Support Drilling & Testing and 2.3.3 A1, B1 & C1 Pit Channel Stability programs identified in the LUP application (sections 2.3.2 and 2.3.3 of the LUP project description). The stabilization contractor will complete the necessary drilling to support the underground stabilization program. This drilling information, once collected, will be used to plan the stabilization activities for individual underground workings. Completed and forecasted stabilization activities are to be reported on in the annual reports. Please note that we recommend that these reports be submitted every 6 months rather than 12 months as identified in our suggested changes to the draft WL conditions.	Board staff are satisfied with this response. Drilling under Land Use Permit MV2012S0019 was occurring while this application was out for review.	