



NIRB File No.: 00MN059

October 23, 2015

Karen Costello
Director, Resource Management
Aboriginal Affairs and Northern Development Canada
P.O. Box 100
Iqaluit, NU X0A 0H0

Sent via email: karen.costello@aandc.gc.ca

Re: The Nunavut Impact Review Board's 2014-2015 Annual Monitoring Report for the Jericho Diamond Mine Project and Board's Recommendations

Dear Karen Costello:

The Nunavut Impact Review Board (NIRB or Board) issued its *2014-2015 Annual Monitoring Report for the Jericho Diamond Mine Project* (Monitoring Report) to Shear Diamonds (Nunavut) Corporation (Shear) and Fisheries and Oceans Canada under separate cover earlier today. The enclosed Monitoring Report is based on the NIRB's monitoring activities as set out within the Jericho Project Certificate [No. 002] and pursuant to Sections 12.7.1 and 12.7.2 of the Nunavut Land Claims Agreement (NLCA). This report provides the findings of the NIRB's monitoring of the Jericho Project from October 2014 to September 2015.

Please note that the Monitoring Report, Project Certificate and other materials pertaining to the NIRB's ongoing Monitoring program for the Jericho Project are also available from the NIRB's online public registry at:

<http://ftp.nirb.ca/03-MONITORING/00MN059-JERICH0%20DIAMOND%20MINE/>.

Based upon the Board's review of materials related to the Jericho Project, including site inspection forms and management reports submitted by AANDC, by way of motion carried during its regular meeting held in October 2015, the Board has issued the following recommendations in order to ensure the NIRB has all information necessary to adequately discharge its mandate with respect to provisions within Section 12.7 of the NLCA as such pertain to the Jericho Project.

Nuclear Gauges

Two nuclear gauges were located at the Jericho Mine site without an active license from the Canadian Nuclear Safety Commission for possession/storage/transfer. Through follow-up discussion with AANDC it was noted that as of September 8, 2015 the gauges were still located on-site and the department was considering the possibility of transporting the gauges off-site prior to the end of 2015.

Recommendation 4: The Board requests that AANDC provide the following information regarding the status of the nuclear gauges:

- a) Location of the gauges and whether they remain at the Jericho Mine site or have been transferred off-site;
- b) Licence number, licensee name, and applicable terms and conditions of any issued licenses; and
- c) Future plans regarding the storage, transfer, or disposal of the gauges as applicable.

The Board respectfully requests that AANDC provide a response to this request to our office within 60 days' receipt of this correspondence.

Site Risk Management during Temporary Shutdown

In correspondence received by the NIRB on July 2, 2013, AANDC indicated that management of site risk would focus on: site water during freshet; tailings and tailings facility management; and fuel and hazardous waste storage and containment.¹ During 2014 and 2015, AANDC made note of its continued efforts to manage the previously identified risks at the Jericho Mine site.

Site Water Management

In response to the Board's 2014 recommendations, AANDC provided an update on the site's water monitoring and sampling practices as well as releases of water at site. While it was noted that contaminated water in the lined bermed facilities surrounding the main fuel tanks not meeting discharging criteria was pumped back into the main fuel tank bermed area instead of being discharged, it was unclear what percentage of the total water that was and was not treatable by the Oztec filter to meet standards. The 2014 Water Licence Inspection Form further identified a need for future active management of contaminated water within the bermed fuel tank farm, although it was unclear whether this implied a continuation of current activities or that new management practices should be undertaken.

Tailings and Tailings Facility Management

AANDC provided information on the effects of windblown tailings from the processed kimberlite containment area (PKCA) at various locations on-site. In reference to three site visits in 2014, the AANDC Field Operations Water Resource Officer concluded that although mitigation measures undertaken by personnel at site during 2013 had reduced the spread of windblown tailings from the PKCA during the winter months, further measures would need to be undertaken in the future. In addition, it was noted that sediment deposited from the PKCA remained visible in the southeast dam pond. However, the levels of total suspended solids in the pond were not provided, making it difficult to determine the level of impact of sedimentation on the waterbody.

¹ Dated June 7, 2013. Correspondence from E. Paul, Water Resources Officer, Aboriginal Affairs and Northern Development Canada to P. Beaulieu, Manager of Licensing, Nunavut Water Board, Re: *Jericho Mine (2AM-JER1119)*. July 2, 2013.

Fuel and Hazardous Waste Storage

It was noted by AANDC that the hazardous waste treatment area (HWTa) contained a growing quantity of hazardous waste and that in 2011 to 2012 Shear indicated that the liner was suspect at the time. It was unclear from the reports submitted by AANDC whether water samples were collected from the HWTa. A potential glycol leak from the generator set by the day-tank berm was further identified. It is not clear how the receiving environment surrounding the HWTa and generator has been assessed for potential contaminants.

Recommendation 5: The Board requires that Shear, or, given the current site management regime, requests that AANDC continues to provide the NIRB with details of its water monitoring and sampling practices as well as releases of treated site contact water, and activities undertaken to manage the risks identified above at the Jericho site. The Board requests that the following details be included for the 2015 reporting year:

- a) Clarification on the percentage of total water from the main fuel tank farm not treatable by the Oztec filter to standards;
- b) The amount of total suspended solids found in water bodies tested, particularly in southeast dam pond; and
- c) Plans to monitor for potential contaminants from the hazardous waste treatment area and generator set on the receiving environment and any long-term management plans.

The Board respectfully requests that AANDC provide this information to our office within the timeline as requested for each of the recommendations.

Should you have any questions or require further clarification regarding the Board's request or related to the NIRB's monitoring program for the Jericho project, please contact the undersigned at (867) 983-4606 or hrrasmussen@nirb.ca.

Sincerely,



Heather Rasmussen, M.Env-EA
Jericho Project Monitoring Officer
Nunavut Impact Review Board

cc: Shear Diamonds (Nunavut) Corporation
Jericho Distribution List

Enclosure (1): The Nunavut Impact Review Board's *2014-2015 Annual Monitoring Report for the Jericho Diamond Mine Project*