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August 31, 2018

File: W2015L2-0001

Mr. Sean Sinclair Diavik Diamond Mines (2012) Inc. P.O. Box 2498, 300-5201, 50th Avenue Yellowknife, NT X1A 2P8

Dear Mr. Sinclair,

<u>Re: Information Request for Diavik Water Licence (W2015L2-0001) Amendment Application</u> <u>for Processed Kimberlite to Mine Workings</u>

Diavik Diamond Mines (2012) Inc. (DDMI) submitted an Application to the Wek'èezhii Land and Water Board (WLWB or the Board) to amend its Water Licence (W2015L2-0001) to allow for the deposition of Processed Kimberlite (PK) material into mine workings.¹ The Application was distributed for public review on June 15, 2018. Under the Preliminary Screening Requirement Regulations of the *Mackenzie Valley Resource Management Act* (MVRMA), the Board must conduct a preliminary screening for such an application. As part of the public review, reviewers were encouraged to provide comments and recommendations to assist the Board with making its preliminary screening determination. Reviewers were asked to provide comments by August 2, 2018.

It has been determined that insufficient information is available on the record to inform a preliminary screening determination. As per rule #46 of the Board's Rules of Procedure,² an Information Request is being issued to obtain the additional information required to conduct the preliminary screening. DDMI is requested to inform the WLWB by September 14, 2018 of a timeline for when it would be able to provide the information requested below. The Work Plan for this Proceeding will be updated following receipt of the timeline from DDMI, and parties are hereby notified that the Technical Session currently scheduled for October 3, 2018 is postponed until further notice.

Comments and recommendations on the Amendment Application were received from Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada (ECCC), the Environmental Monitoring Advisory Board (EMAB), and the Government of the Northwest Territories – Environment and Natural Resources (GNWT-ENR). Comments received from all reviewers

¹ See WLWB Online Registry (www.wlwb.ca) for Diavik - WL Amendment Application - PK to Mine Workings - Jun 4_18.pdf

² MVLWB Rules of Procedure, Including Public Hearings (2004)

advised that they were unable to assess potential environmental impacts of the proposed Amendment because of a lack of information provided with the Application (e.g., DFO comment 1, ECCC comment 3, EMAB comment 7, and GNWT-ENR comment 6).

DDMI submitted its responses to reviewer comments by the deadline of August 23, 2018. In its responses, DDMI indicated that work to generate some of the information being requested by reviewers to assist in the assessment of potential environmental effects is underway and will be available at a later date. DDMI indicated that some of this information may be available within the next month; however, according to the schedule provided with its responses in Attachment A, not all information will be available during the course of the Proceeding based on the current Work Plan.³

To assist the Board with making its Preliminary Screening determination, DDMI is requested to:

- 1. Demonstrate how the water quality in each pit (i.e., A148, A154, and A21) will be impacted at closure/post-closure because of deposition of PK and PKC Facility "slimes" and demonstrate whether the water quality at closure/post-closure will be impacted such that the pits (i.e., A148, A154, and A21) may not be able to be reconnected to Lac de Gras, once flooded. This may include:
 - a. The potential effects of tailings on the water quality of the freshwater cap for all potential closure scenarios (i.e., with/without slimes, variable PK fill elevations);
 - b. Predicted water quality in deep waters of the mine pits and how this will change over time because of the deposition of PK;
 - c. The proposed maximum PK fill elevation within each pit in relation to overlying water quality, including an assessment of the water cover depth;
 - d. Identification of contaminants of potential concern within the freshwater cap over the tailings, and mitigation measures for any contaminants of concern;
 - e. The likelihood of PK material being re-suspended;
 - f. A risk assessment of the effects to surface water quality in the pits and Lac de Gras in the event that unanticipated mixing occurs;
 - g. The potential effects to Lac de Gras should modelling predict degradation of the water quality in the pits because of deposition of PK; and
 - h. A demonstration of how potential mitigation measures may optimize water quality in the freshwater cap.
- 2. Demonstrate whether the anticipated meromictic conditions within the pits (i.e., A148, A154, and A21) at closure/post-closure would be altered by the deposition of PK. This may include:
 - a. Modelling to demonstrate the stability of the anticipated meromictic condition with and without the deposition of PK and PKC Facility "slimes";
 - b. The influence of the final PK fill elevation on the stability of meromixis; and
 - c. A demonstration of how potential mitigation measures could improve the stability of the anticipated meromictic condition.

³ See WLWB Online Registry for Diavik - WL Amendment Application - PK to Mine Workings - Work Plan - Jun 26_18.pdf

- 3. Demonstrate whether fish and fish habitat are likely to be impacted at closure/postclosure because of deposition of PK and PKC Facility "slimes" into each pit. This may include:
 - a. Detailed information on any potential change and corresponding mitigation to the level of serious harm to fish resulting from the proposed Amendment;
 - b. The potential risk that water quality may not be suitable for the re-introduction or establishment of fish at closure;
 - c. The potential change in fish habitat conditions at closure/post-closure because of the proposed Amendment;
 - d. The potential risk to fish in the event that unanticipated mixing occurs at closure/post-closure;
 - e. The effect to the fish population in Lac de Gras if reconnection to Lac de Gras was not possible; and
 - f. A demonstration of how potential mitigation measures may limit potential impacts to fish and fish habitat.

Comments received during the review period have also identified that DDMI's pre-submission engagement may not have covered the full scope of what was included in the Application (i.e., PK to A418 versus PK to all three pits; see for example DFO comment 3, ECCC comment 2; and EMAB comment 13). To address this, DDMI is requested to answer the following:

- 4. Describe how DDMI's pre-submission engagement specifically addressed the proposal to deposit PK into all three mines; and
- 5. If DDMI has not engaged specifically on the deposit of PK into all three mines, provide a timeline for completing additional engagement (i.e., not associated with the Board's process) related to PK deposition in the A154 and A21 pits and updating the engagement record.

Should DDMI have any questions, please feel free to contact the Executive Director, Ryan Fequet, at rfequet@wlwb.ca or by phone at 867-765-4589.

Sincerely,

Ryan Fequet Executive Director, Wek'èezhii Land and Water Board

Copied: Diavik Distribution List