

# Environmental Monitoring Advisory Board

Conference Call Minutes – July 31, 2019; 10:13 to 11:55 am

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## Present:

Arnold Enge, *Director*

Machel Thomas, *Director* (by phone)

North Slave Metis Alliance

Yellowknives Dene First Nation

## Absent:

Jack Kaniak, *Director*

Julian Kanigan, *Secretary-Treasurer*

Violet Camsell-Blondin, *Director*

Gord Macdonald, *Director*

Charlie Catholique, *Director*

Kitikmeot Inuit Association

Government of the Northwest Territories

Tlicho Government

Diavik Diamond Mines

Lutsel K'e Dene First Nation

## Staff:

John McCullum, *Executive Director*

(minutes)

Janyne Matthiessen, *Environmental Specialist*

(minutes)

Environmental Monitoring Advisory Board

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## Guests:

Bill Slater, Slater Environmental

Megan Cooley, North-South Consultants

Friederike Schneider-Vieira, North-South Consultants

Wednesday, July 31, 2019

Review of EMAB's Intervention for DDMI EA 1819-01 (PK to Pits Proposal)

### Call to Order

Meeting called to order at 10:13 am. Noted that quorum is not present so this is not an official Board meeting.

### Review of EMAB's Intervention – 10:14am

ED reviews table of contents

ED begins the review of the Intervention by section

### Review of plain language summary:

Discussion on A21

- Discussion on A21 being more likely to turn over

- Meromixis would breakdown over 50 years, whereas other pits would take more than 100 years to break down
- this may not be a bad thing, as it could be a more gradual introduction of contaminants into Lac de Gras (LDG)
- Loadings would end up in LDG at a faster rate
- Don't think the idea was to use all three pits anyways
- Agreed to discuss further when we get to A21 section of report

### **Significance Definitions**

Bill Slater presented

Discussion

Q: From reading the SIS Diavik interchangeably use residual effect and residual environmental effect, was this based on the original CSR definitions and do these apply to effects remaining after mitigation.

A: Diavik relied on historical definitions. For the CSR, Diavik proposed the definitions of significance and CEAA accepted them. The SIS provides an interpretation. It defines residual effects as effects remaining after mitigation. MVEIRB should require them to look at the context of those definitions, and should take them into account.

### **Reliability of Predictions**

Bill Slater presented

Q: Is there any calibration data from IEMA for the deposition of PK in Beartooth

A: No, there hasn't been much calibration there. Disappointed in the lack of calibration work that was done at Beartooth.

Q: Was there modelling done on the pits for the initial reclamation plan of flooding the pits without PK? Can that data be used in the new model with PK deposition to pits?

A: this question has not been resolved by Diavik yet. Initial pit flooding modelling included loadings to pits during filling, but it wasn't included in the new models with PK. Current model uses a much lower amount of groundwater in the pit. Diavik has not provided much rationale for their lack of modelling for the filling period and their exclusion of loadings from models.

NSC agrees that modeling should be revisited once data from current U. of A. study is available

Noted that NSC needs to go to another meeting in half an hour, so agreed that they will present findings on fish and monitoring now.

### **NSC Reviews Section 7 (Fish)**

### **NSC Reviews Section 9 (Monitoring)**

Discussion on if DO survey, as suggested by NSC was actually included in the intervention

- It was included

Noted that sediment quality should be monitored in the pits as it relates to aquatic habitat

Megan and Friederike left the meeting.

### **Effects to Water Quality**

Bill Slater presented

Discussion:

- Issue with possibility that PK could settle on top of water like a slurry
- Diavik said it would be pumped out until it was at a reasonable level
- Considering the settling rates are unknown it seems ambitious that Diavik thinks settling will be complete after 6 years
- Pumped out slurry would be treated
- Model assumes a settleable component but EFPK may not behave that way. Uncertainty about assumption that there will be 5m of water in the pit from the beginning.

### **Benchmarks for Unanticipated Mixing**

Bill Slater presented

### **Inclusion of A21**

Bill Slater presented

Response to earlier question about why earlier turnover of A21 is bad (response by Bill)

- Speed of diffusion of contaminants into LDG will be increased by including A21. Ideally, don't use A21.

Question brought up about DDMI's most recent IR responses on definitions of isolation

- Agreed to discuss at a different time, as these responses are not included in this intervention. Noted that pit lake isolation refers to fish, Diavik is proposing a water connection between pit and LDG.

Noted that recommendations include conditions on any PK deposited to A21 if it needs to be used.

### **Decision to Reconnect**

Bill Slater presented

### **Wildlife**

Bill Slater presented

### **Contingency Plans**

ED presented

**Revised Closure Objectives**

Bill Slater presented

Q: since the original closure plan also involves flooding pits, the main issue now is what are the chemical contents of the PK slurry. That might influence everything else. Diavik hasn't supplied info about what is in the EFPK?

A: This will be addressed in the next level of modelling when the results from the U of A PK slurry study are complete.

**Cumulative Effects**

Bill Slater presented. Very difficult to understand what Diavik did with respect to cumulative effects assessment

**Slimes**

Bill Slater presented

Noted that quorum is not present. Agreed that the approval of the intervention will be by email motion. Arnold and Machel will vote now and the motion will be sent out for email votes.

**Motion to submit intervention as reviewed**

**Moved: Arnold Enge**

**Seconded: Machel Thomas**

**ED to circulate email motion to rest of Board.**

Meeting adjourned at 11:55am