

Ida Porter <ida.porter@nwb-oen.ca>

### 181109 2AM-MRY1325 Comment Request on Construction Drawings Submission **Run of MSSP-OLAE**

3 messages

#### Ida Porter <ida.porter@nwb-oen.ca>

Fri, Nov 9, 2018 at 4:20 PM

To: Christopher Murray <christopher.murray@baffinland.com>, Andrew Vermeer <Andrew.vermeer@baffinland.com> Cc: Assol Kubeisinova <assol.kubeisinova@nwb-oen.ca>, Fai Ndofor <FNdofor@qia.ca>, Ian Parsons <lan.Parsons@aandcaadnc.gc.ca>, "Forte, Sarah (AADNC/AANDC)" <sarah.forte@canada.ca>, "Campbell, Bridget (AADNC/AANDC)" <bri>dget.campbell@canada.ca>, "Dewar, Spencer (AADNC/AANDC)" <spencer.dewar@canada.ca>

Hi Chris,

Please find attached copy of QIA & CIRNAC Response to comments on Construction Drawings Submission Run of Mine Stockpile and Sedimentation Pond, please review and respond.

#### Regards, lda



## Ida Porter- $\triangle C > \triangle C$

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#### 2 attachments



181109 2AM-MRY1325 QIA CPL Run of Mine Stockpileand Sedimentation Pond Response-ILAE.pdf 482K



181109 2AM-MRY1325 CIRNAC Reply to BIM Response\_KM107\_ROMSTOCKPILE-IMLE.pdf 101K

Assol Kubeisinova <assol.kubeisinova@nwb-oen.ca> To: Christopher Murray <christopher.murray@baffinland.com> Fri, Nov 9, 2018 at 4:27 PM

Cc: licensing@nwb-oen.ca

Chris,

Could you also please let us know the following:

- the planned capacity of the pond is 3,500 m3. What would be the additional capacity if the pond were to contain a 10year flood, plus a standard/average volume of stored water (i.e., the runoff that had been collected just prior to the 10-year
- how often and at when/what time of year does BIMC discharge its ponds;
- is there a contingency plan in the event of a 10-year flood?
- is it possible that the pond may be left empty at some point? If so, for how long? CIRNAC raised a concern in of its submissions about liner deterioration due to mechanical and UV damage;

Thank you,



## Assol Kubeisinova- ついてはいるはい

Technical Advisor - Conseiller technique ADA®Q®DCQG®LC AbK®A-Piluagnagtuliginigmun Ikayugti

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181109 2AM-MRY1325 CIRNAC Reply to BIM Response\_KM107\_ROMSTOCKPILE-IMLE.pdf 101K

Christopher Murray <christopher.murray@baffinland.com> To: Assol Kubeisinova <assol.kubeisinova@nwb-oen.ca> Cc: "licensing@nwb-oen.ca" licensing@nwb-oen.ca>

Tue, Nov 20, 2018 at 12:20 PM

Hi Assol,

Please find below my responses to your inquiry in red, I am happy to discuss further.

Thank you,

Christopher Murray | Environmental & Regulatory Compliance Manager

Oakville - 2275 T: +1 416 364 8820 x5072 C: +1 647 472 9842



2275 Upper Middle Road East, Suite 300, Oakville, Ontario, Canada, L6H 0C3 www.baffinland.com

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From: Assol Kubeisinova [mailto:assol.kubeisinova@nwb-oen.ca]

Sent: November 9, 2018 6:28 PM

To: Christopher Murray <christopher.murray@baffinland.com>

Cc: licensing@nwb-oen.ca

Subject: [EXTERNAL] Fwd: 181109 2AM-MRY1325 Comment Request on Construction Drawings Submission Run of

MSSP-OLAE

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Chris,

Could you also please let us know the following:

- the planned capacity of the pond is 3,500 m3. What would be the additional capacity if the pond were to contain a 10year flood, plus a standard/average volume of stored water (i.e., the runoff that had been collected just prior to the 10-year flood);

There is no standard or average volume of water anticipated to be managed on an ongoing basis, as this is entirely dependant on meteorological conditions in a given year. The 1:10 year precipitation event was selected in the approved Civil Design Criteria for the project to be sufficiently protective of the receiving environment. By definition the 1:10 year event is not a common occurrence and is considered an extreme condition, therefore the pond has more than adequate capacity to withhold runoff from on-going operations.

- how often and at when/what time of year does BIMC discharge its ponds;

Discharge of the ponds only occurs during the flowing water season, approximately May to September of a given year. The frequency of discharge is dependant on meteorological conditions. For reference, the discharge dates are provided in the monthly and annual report for each pond.

- is there a contingency plan in the event of a 10-year flood?

The pond is designed to contain a 1:10 year rainfall event. In the event that this is exceeded, water would be discharged to the environment through the emergency spillway, which is designed for a 1:200 year rainfall event. This is consistent with the approved Civil Design Criteria and the construction of all existing ponds at the Project.

- is it possible that the pond may be left empty at some point? If so, for how long? CIRNAC raised a concern in of its submissions about liner deterioration due to mechanical and UV damage;

The pond is designed to be drained on an on-going basis to maintain adequate capacity. The duration that sections of liner will be exposed are not known or consistent as it will depend on the meteorological factors contributing to the

volume of water contained in the pond. The facility will be inspected bi-annually as part of the Geotechnical inspection to ensure the facility is acting as designed and not degrading at an accelerated rate.

It is important to note that UV degradation of plastics such as HDPE and LDPE are known and understood, and that commercially available liner products add UV stabilizing compounds to mitigate or slow the effects of UV radiation. Long terms studies on low density polyethylene have demonstrated lifespans in excess of 25 years in applications where UV exposure is more consistent than in the arctic, as the material in our application at the Project site is largely snow covered for 8 months of the year. Layfield Enviro Liner 6000HD is a product that has been used at the Project previously for the construction of containment areas, and is similar to the Atarfil LLD proposed for the KM107 Stockpile pond. Layfield estimates a lifespan of 25 years for Enviro Liner 6000HD (https://www.layfieldgroup. com/Geosynthetics/Tech-Notes/UV-Resistance.aspx). It is important to note that the Atarfil LLD material meets or exceeds the ATSM 5885 testing requirement for UV resistance, as detailed on the specification sheet contained in Appendix A of the design brief.

Thank you,



# Assol Kubeisinova- ついてはいるはい

Technical Advisor - Conseiller technique A\_4%a\_%DCA\_5%L Abt%A-Piluagnagtuliginigmun Ikayugti

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----- Forwarded message ------

From: Ida Porter <ida.porter@nwb-oen.ca>

Date: Fri, Nov 9, 2018 at 4:20 PM

Subject: 181109 2AM-MRY1325 Comment Request on Construction Drawings Submission Run of MSSP-OLAE To: Christopher Murray <a href="mailto:christopher.murray@baffinland.com">christopher.murray@baffinland.com</a>, Andrew Vermeer <a href="mailto:Andrew.vermeer@baffinland.com">Andrew.vermeer@baffinland.com</a>, Cc: Assol Kubeisinova <assol.kubeisinova@nwb-oen.ca>, Fai Ndofor <FNdofor@qia.ca>, Ian Parsons

<lan.Parsons@aandc-aadnc.gc.ca>, Forte, Sarah (AADNC/AANDC) <sarah.forte@canada.ca>, Campbell, Bridget 

Hi Chris,

Please find attached copy of QIA & CIRNAC Response to comments on Construction Drawings Submission Run of Mine Stockpile and Sedimentation Pond, please review and respond.

Regards,

Ida



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