

Review of Correspondence between EBA (Nov 25/05) and DIAND (Nov 08 and 18 /05)

Completed by: Joe Murdock

Date: December 1st, 2005

Licence: NWB1JER0410 Part D, Item 16

C1 Diversion

NWB1JER0410 C1 Diversion (Section D, Item 16)

This document evaluates Tahera's (EBA) response to comments presented by Robert Eno (DIAND) and identifies points where Tahera (EBA) is to provide further clarity. This document considers the responses provided by Tahera (EBA) to Acres to ensure that concerns are not repeated if so. It is also assumed that the INAC documents referenced in Tahera's (EBA) correspondence is the November 8th and 18th. Tahera (EBA) had listed November 21st documents in their response.

DIAND Review Section 1 – *General Design Comments (Nov 8/05)*

Bullet 1 Seepage through Fill Pad

The Board respects the opinion of the Proponent yet still requires the Proponent to simply state that the design presented is scientifically sufficient in this specific instance and does not warrant thermal analysis or provide the requested thermal analysis to satisfy the request of DIAND.

Bullet 2 Seepage through Active Layer Soils – Reach A

The Board once again respects the opinion of the Proponent yet still requires the Proponent to simply state that the design presented is scientifically sufficient in this specific instance and does not warrant thermal analysis or provide the requested thermal analysis to satisfy the request of DIAND.

The Proponent states that seepage losses from Reach A will be monitored during the first spring and summer of operation. Could the Proponent please advise the Board on how this information will be presented to the Board?

Bullet 3 Seepage through Active Layer Soils and Insulating Berm – Reach B + C

The Board once again respects the opinion of the Proponent and appreciates the discussion yet still requires the Proponent to simply state that the design presented is scientifically sufficient in this specific instance and does not warrant thermal analysis or provide the requested thermal analysis to satisfy the request of DIAND.

Could the Proponent please briefly detail or elaborate further on the multiple mitigation measures that could be implemented if anomalous behaviour is observed?

Bullet 4 Setback Distance

The Board appreciates the statement of site specific fact presented by EBA yet believes the question brought up by DIAND has not been adequately answered. The Proponent is requested to provide the reasoning for the design specification of 30 m.

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Bullet 5 Pit Wall Stability

The Board appreciates the statement of site specific facts presented by EBA yet believes the question brought up by DIAND has not been adequately answered. The Proponent is requested to provide still comment and provide reasoning on setback distance in relation to pit wall stability with respect to the C1 Diversion Structure as requested by DIAND.

Bullet 6 Insulating Berm

Could the Proponent please address the DIAND statement under this bullet with respect to road and insulating berm setback distances? A counter argument to the expression stated by DIAND is desired.

Bullet 7 Pit Slopes

The Board believes that the first point of this bullet was addressed by the Proponent yet believes that the second aspect of the bullet has not been fully addressed. The Board acknowledges the statement of facts given in the response yet does not believe that discussion has been presented. As stated by DIAND could the Proponent please provide "*discussion regarding the tie-in of the insulating berm to any thermal protection berms that may be required around the pit boundary to prevent permafrost degradation in the pit slopes*"? Does EBA believe that the observations provided by Tahera regarding the exposed pit wall are sufficient for the basis of the final design provided by EBA? Can EBA qualify this statement and comment with respect to the presented EBA design?

The Proponent states that *subsurface conditions including ice content and thickness of soil cover will be examined and confirmed as the open pit progresses toward the allowable limits of the pit*. Also measures to stabilize the overburden based on site conditions will be dictated by a P.Eng. Could the Proponent please advise the Board on how and when this information will be presented to the Board?

DIAND Review Section 2 – Drawings and Specs (Nov 8/05)

The Board would like to better understand if specifications exist for the list provided towards the end of the Nov 08/05 DIAND Letter. How and when will these specifications be provided to the Board? The reply provided by EBA indicates that all aspects listed by Acres will be addressed. Did the Proponent mean DIAND and if so what was meant by aspects addressed?

DIAND Review Section 2 – *Design Criteria and Parameters (Nov 18/05)*

1. Design Peak Flow

The Board would like to acknowledge the discussion provided by the Proponent. The Board would like the Proponent to reference *Acres Review and Comments Section 3 – Hydraulic Design Parameters* prepared by the NWB and presented to the Proponent for advisement on this issue.

3. Operational Guidelines

Mark Watson of EBA acknowledged the need to include provisions for glaciation in operational guidelines. How and when will this information be provided to the Board?

DIAND Review Section 7 – *Final Design Plan for Culverts Including Specific Location of Installation (Nov 18/05)*

The Proponent has not addressed any of the concerns identified by DIAND within this section. The Proponent is to provide sufficient detail to answer the questions and concerns listed and provide appropriate counter argument.

RECOMMENDATION:

To send back to Tahera (via Bruce Ott) when other regulatory comments and responses are evaluated by NWB for C1 Diversion.