

**Bellefontaine, Kim MEM:EX**

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**From:** Warnock, George MEM:EX  
**Sent:** Wednesday, September 19, 2012 3:55 PM  
**To:** Howe, Diane J MEM:EX  
**Subject:** FW: Mount Polley Mine - 2012 Tailings Construction [Additional Raise]

FYI.

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**From:** Luke Moger [<mailto:lmoger@mountpolley.com>]  
**Sent:** Wednesday, September 19, 2012 3:33 PM  
**To:** Warnock, George MEM:EX  
**Subject:** RE: Mount Polley Mine - 2012 Tailings Construction [Additional Raise]

Hi George,

Thank you very much for your speedy reply. We have discussed with AMEC the FoS for the Main Embankment and the need for a buttressing program next year; this has been incorporated into our budgeting for 2013.

Thanks again,

**Luke Moger**

Project Engineer, Mining Operations  
Mount Polley Mining Corporation

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**From:** Warnock, George MEM:EX [<mailto:George.Warnock@gov.bc.ca>]  
**Sent:** Wednesday, September 19, 2012 1:39 PM  
**To:** Luke Moger  
**Cc:** Howe, Diane J MEM:EX  
**Subject:** RE: Mount Polley Mine - 2012 Tailings Construction [Additional Raise]

Hi Luke,

This e-mail is written to acknowledge receipt of your application to amend Permit M-200. I have reviewed AMEC's letter report and stability analyses which were submitted in support of increasing the dam raise to the 965 m elevation. I have passed my review comments on to Diane Howe and you should be hearing from her shortly. I do not anticipate that it will be a problem to permit the raise to the new design elevation. I am pleased to see that a transition is being made to the "centerline" construction method from the "modified centerline" (upstream) method. The factor of safety for the main embankment is only marginally above the short term design criteria of 1.3 and it seems likely that future raises constructed in an upstream manner would not achieve a factor of safety of 1.3 (for the main embankment). Further, it appears that the change to centerline construction will be necessary to achieve a long term factor of safety of 1.5. I note that AMEC has interpreted Table 6-2 from the 2007 Dam Safety Guidelines somewhat differently than I have seen in the past. This table recommends a minimum factor of safety of 1.3 at the end of construction and "before reservoir filling" and a factor of safety of 1.5 at the "normal reservoir level." AMEC has interpreted the construction period as the entire pre-closure period, and this is open to debate. However, I consider that sufficient mitigation measures are in place (i.e. piezometer trigger thresholds) to support this more liberal

interpretation in this instance. I will be interested in seeing how the factors of safety for future dam raises change with the change in construction methodology.

Regards,

*George Warnock, P.Eng.  
Manager, Geotechnical Engineering  
Ministry of Energy and Mines  
Phone: 250-565-4327*

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**From:** Luke Moger [<mailto:lmoger@mountpolley.com>]  
**Sent:** Tuesday, September 18, 2012 4:07 PM  
**To:** Warnock, George MEM:EX  
**Cc:** Hoffman, Al MEM:EX; Howe, Diane J MEM:EX  
**Subject:** Mount Polley Mine - 2012 Tailings Construction [Additional Raise]

Hi George,

We were hoping to add an additional 1.5m onto our 2012 Tailings Construction Program at Mount Polley, taking it to the 965.0m elevation. The existing 2012 Tailings Construction is permitted to 963.5m (June 2012), which we are continuing to construct towards presently. There are multiple reasons for our wish to permit this additional build in 2012:

- 1) We would like to add additional internal contingency for our freeboard capacity (past the 1.3m permitted and safely projected by our water balance)
- 2) We would like to relieve the pressure to continue construction during more challenging conditions (i.e. be able to target more continuous, cost effective construction rather than "stop-start" construction)
- 3) We are looking at a slight design modification to a centerline method (please see attached package from AMEC) and would like to include some construction using this method in 2012 to help model 2013 budgeting and construction methodology
- 4) We would like to take advantage of what has been a very successful construction season to date

Please find attached the construction drawings from our design engineers, AMEC, along with the associated stability analyses. You are already in receipt of our 2012 Construction Manual, from which the QA/QC and other details will remain constant.

If you would be able to confirm receipt of this package that would be much appreciated; please do not hesitate to contact me if you have any questions or comments.

Kindest Regards,

Luke



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