

Richard Dwyer

From: Wilson, Anne [Yel] [Anne.Wilson@EC.GC.CA]
Sent: Wednesday, January 27, 2010 5:17 PM
To: Richard Dwyer
Cc: Groskopf, Glenn [Reg]; Stéphane Robert
Subject: RE: Meadowbank Water & Mine Waste Management Plans

Hi Richard,

I was speaking with Stephane earlier in respect of clarification of some of EC's comments on the Water Management Plan. With respect to seepage, the licence has the clause:

F.16.d. A protocol for distinguishing Seepage through facilities

It was put into the licence based on one of EC's recommendations:

Excerpt from the Water Licence Reasons for Decision:

Waste Rock and Tailings Cover: The Board agrees with EC that the management of tailings and waste rock from the mine is critical to the long term impact of the Project. 101 As discussed by EC, a key component to this is the establishment of a waste rock segregation protocol and routine audit to confirm that the rules for segregating rock are working. 102 The Board agrees this is essential to ensuring that rock that is potentially acid generating or metal leaching is properly disposed of, and that cover rock is effective. The Board also agrees with EC that till rock should be characterized to determine if it will generate acid rock drainage. Accordingly, the Board requires AEM to submit to the Board for review and approval within 6 months of the Licence approval, a revised Mine Waste and Water Management Plan that includes a protocol for segregating rock, confirming the segregation rules, monitoring till rock for acid drainage potential, and a protocol for distinguishing seepage through facilities.

In EC's letter of Dec. 10th the comment was made that

Item F.16.d. is not explicitly addressed, although seepage as a general category is discussed with respect to monitoring and management.

Discussion with Stephane this morning brought out the need for some clarification of the intent of the seepage comments shown above. I spoke with EC's mining expert, Glenn Groskopf, and confirmed the intent was to look at the quality of drainage coming from waste rock piles, so that the pile monitoring was acting as a "real life" leach pad. The monitoring of seepage water or in-pile pore water may indicate if segregation practices are sufficient to be protective as predicted (i.e. confirm that the mine rock is benign). Waste rock is segregated based on the potential for acid generation, as described in the Operational ARD-ML Sampling and Testing Plan.

Section 5 of the ARD plan discusses periodic audits that would be done to confirm the adequacy of segregation measures. The ARD plan mentions (page 29) that monitoring details are covered in other plans (Water Quality and Flow Monitoring Plan; Meadowbank Project Monitoring Plan). The Water Quality and Flow Monitoring Plan includes a section on seep characterization (3.1.2.6 on page 32) as required for licence monitoring (Part I Sections 8 & 15).

Bottom line:

The monitoring of seepage being done does address the requirement of clause F.16.d.

The licence specifies this be included under the Mine Waste and Water Management Plan.
Can this be addressed by simply referring the reader to the Water Quality and Flow Monitoring Plan?

It took me a bit of looking through the various plans, which highlighted the extensive work being done
- it is a little difficult to keep track of it all!

Anne

From: Wilson, Anne [Yel]
Sent: Thursday, December 10, 2009 4:49 PM
To: Richard Dwyer
Cc: Ogilvie, Carey [Yel]; Spavor, Carrie [Iqa]; Groskopf, Glenn [Reg]
Subject: Meadowbank Water & Mine Waste Management Plans

Hi Richard,
Attached are EC's comments on the above plans. Thanks very much for the time extension on this one!
Best wishes for Christmas and New Years!
Anne

<< File: EC comments Water and Mine Waste Management Plans Dec 2009.pdf >>