

March 22, 2012

Our file: EA1011-001

Via email

David Swisher  
Vice President, Operations  
Avalon Rare Metals Inc.  
Unit 330 - 6165 Hwy 17  
Delta, BC V4K 5B8

Dear Mr. Swisher:

**Re: EA1011-001: Thor Lake Rare Earth Element Project – Information Request Response Clarification**

The Review Board would like to thank Avalon Rare Metals Inc. for responding to information requests related to the Thor Lake Rare Earth Element Project. The responses cover a number of important topics and form a basis for further investigation within the environmental assessment.

The Key Line of Inquiry for this environmental assessment explores potential impacts to water quality from the Thor Lake Project. There were a number of information requests from both the Review Board and parties seeking further information on the interaction between the project and the aquatic environment. After fully considering the water quality data Avalon has submitted to the registry at this point in the environmental assessment, the Review Board has decided that the following courses of action will serve to adequately address the data requirements for the Review Board's determination of significance for potential impacts to water quality from the project. Prior to the scheduling of a technical session:

1. Please submit results of both sublethal and chronic toxicity tests (as well as the associated acute toxicity test) on a sample of simulated effluent from the March 2012 pilot plant testing Avalon refers to in both Avalon Response #3.1 (in response to AANDC's IR# 3.1) and Avalon Response #23 (Environment Canada's IR#23).
2. Please adequately address Aboriginal Affairs and Northern Development Canada's (AANDC) Information Request #1 by submitting:
  - a. appropriate site-specific water quality objectives specific to the effluent likely to be discharged from the Thor Lake Rare Earth Element Project; and
  - b. specific location(s) where Avalon proposes to meet the site-specific water quality objectives.

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Site-specific water quality objectives are an important prerequisite to the technical session. The Review Board suggests Avalon meet with AANDC to establish appropriate site-specific water quality objectives and submit the ensuing objectives with adequate justification and supporting documentation to the Review Board for posting to the public registry. These objectives will enhance the Review Board's – and by extension the public's – understanding of the nature of interaction between the project and the aquatic environment and as stated above, would serve to address the Review Board's data requirements for a significance determination of potential impacts to water quality from the project.

The Review Board notes that responses such as the following are inadequate to address the data requirements for this Key Line of Inquiry:

...any water decanted from the TMF to the downstream receiving environment will be discharged in compliance with MVLWB Water Licence and federal MMER discharge criteria...(Source: Avalon's February 2012 Response to AANDC Information Requests)

MMER and/or CCME criteria may not always be as protective as needed for all developments in all project areas, in addition to not necessarily reflecting the potential vulnerability unique to a local environment such as small water bodies directly receiving project effluent.

3. Please submit the full suite of water quality test results associated with the March 2012 pilot plant testing Avalon refers to in both Avalon Response #3.1 (in response to AANDC's IR# 3.1) and Avalon Response #23 (Environment Canada's IR#23).

The Review Board will assess the adequacy of Avalon's responses to the above prerequisite items before scheduling the technical session. As stated above, the Review Board has made this decision in full consideration of information that Avalon Rare Metals Inc. has submitted to date for this environmental assessment. The expectation of establishing site-specific water quality objectives prior to the technical session has precedent in previous and recent environmental assessments. The Review Board notes that there may be other issues related to water quality that warrant further dialogue between Avalon and parties. The Board encourages the developer to continue to discuss any outstanding issues with parties in anticipation of the technical session.

Avalon has indicated pending test results related to AANDC IR#22 will be relayed to the Board. Please relay the May 2012 results as soon as possible, and also relay pending test results (for May) as soon as possible for the tests referred to in AANDC IR#20. Please also relay pending test results related to these information requests as soon as possible for the pending July and October tests. Please also indicate the scope of testing related to AANDC IR#22, and Avalon's expected submission date for such results. In the Review Board's view these information requests speak to important issues that must be addressed within the environmental assessment.



Sincerely,

Paul Mercredi

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cc.: Nathen Richea, Water Resources Division, Aboriginal Affairs and Northern Development Canada

