

October 26, 2012

Our file: EA1011-001

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 – Round 2 Information Request Responses**

Water quality impacts were designated as the Key Line of Inquiry for this environmental assessment in February 2011. The Review Board has reviewed Avalon Rare Earth Minerals Inc.'s (Avalon) responses to second round information requests. The Board has determined that Avalon's responses to RBIRs 2.01, 2.02, 2.05 and 2.06 are incomplete. Without the information requested through these IRs the Review Board and parties will not be able to fully assess issues related to the Key Line of Inquiry for this file.

The most critical information required by the Review Board was identified in RBIR 2.01. While the Review Board still considers the Avalon responses to 2.02, 2.05 and 2.06 to be incomplete, we will address these matters in the hearing. The issue of effluent treatment, however, requires immediate attention. Consequently, Avalon is directed to provide full and comprehensive answers to the following questions:

The Review Board requires evidence that, as per its current project proposal, Avalon actually possesses the means to maintain effluent quality at levels that will not cause a significant adverse impact to water quality, as suggested for various parameters in Avalon's tracer modeling. With this in mind, the Board requests more detail on the following matters than currently appears on record.

**1. Influent/Effluent**

The description of the treatment process appears to state that the influent stream to the process was water containing the Day 5 decant concentrations and that the treatment system would treat water discharged from the TMF. Avalon is requested to:

- (a) Provide a precise table of the water quality parameters and concentrations in the influent and effluent streams entering and exiting the treatment system,
- (b) Identify the specific treatment methodologies involved,
- (c) Identify any chemicals used in the treatment process,
- (d) Identify and describe any precipitates or other residues resulting from the treatment process, and



(e) Confirm whether the treatment system, if built, would treat water discharged from the TMF or treat water before discharge into the TMF.

**2. Trigger/Threshold for Treatment and Mitigation**

Avalon's response to RBIR 2.01 states in part "Avalon has stated that it will treat its effluent to achieve these criteria and guidelines if determined to be necessary". Based on the tracer modeling results, it already appears that treatment of the TMF discharge would be "necessary in order to meet the proposed SSWQOs".

Is Avalon therefore making a definite commitment to treat the TMF discharge or does it have a different criterion in mind to trigger the necessity of the treatment plant? If so, what are the specific criteria which Avalon will use to decide when the treatment plant is necessary? Justify and explain any criteria proposed for this purpose.

**3. Referenced Technologies for Water Treatment**

In the event that Avalon's proposed water treatment technologies fail to meet water quality objectives, Avalon has stated that other proven technologies exist to treat mine effluent. Please provide specific information about these other technologies. Demonstrate that they have been proven effective in treating rare earth elements in solution.

The Review Board anticipates Avalon's full cooperation in responding to these questions about effluent treatment technologies. This issue is of critical importance to the Key Line of Inquiry in this proceeding. The burden of proof at this stage in the proceeding is on Avalon to show that its proposed technologies are viable and that they will produce effluent which does not result in significant impacts on the environment. We remind you that other reviewing parties need this information in order for them to prepare Technical Reports in a timely and efficient way. Any further delay on Avalon's behalf to provide the information necessary to satisfy the Key Line of Inquiry could have consequential effects on the environmental assessment's timelines.

We would welcome the opportunity to meet if you have any questions or if we can assist by clarifying the exact nature of the information required. Please do not hesitate to contact me directly.

Sincerely,

Vern Christensen  
Executive Director