

## Rhonda Miller

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**From:** Wilson, Anne [Yel] [Anne.Wilson@EC.GC.CA]  
**Sent:** Wednesday, December 19, 2007 10:18 AM  
**To:** jason@mvlwb.com; permits@mvlwb.com  
**Cc:** Deborah.Flemming@ca.debeersgroup.com; Ed.Huebert@ca.debeersgroup.com; Hanna, Bruce; Kathleen Racher; dwhite@slema.ca; Ogilvie, Carey [Yel]; Covey, Tracy: INAC  
**Subject:** DeBeers Snap Lake - AN storage

Good morning Jason,

On behalf of EC I've reviewed the request from DeBeers Canada Ltd. to store additional bulk ammonium nitrate at the Snap Lake mine. While I haven't identified concerns with the proposed storage locations, I am concerned that ammonia use is now double that which was predicted and assessed for this project. The attachments to the request states that: "the amount is double because there is a need for more production over a year than originally anticipated" (email from Deborah Flemming to Pavel Zraly, November 6, 2007).

Because of the difficulties in treating ammonia and nitrate, considerable attention was paid at the technical meetings and water licencing hearings to setting appropriate licence criteria. Discharge limits were based on guidelines that would be protective of the lake, and determined to be achievable based on calculations done for lake concentrations which relied on the predictions of ammonia source concentrations.

It would be prudent for the water quality model to be re-run using updated ammonia inputs, and for monitoring data to be examined. I note that in the July SNP report there are already elevated levels of ammonia in surface runoff (about 8.5 mg/L) and in the permanent treatment plant effluent (a maximum of just below 5 mg/L). Will the annual loading limits for NH<sub>3</sub> and NO<sub>3</sub> be exceeded over time? Is the 2004 ammonia source control plan being followed? Have unexpected operational conditions been encountered?

To summarize, EC does not have any problems with the proposed storage of additional ammonium nitrate, but we feel that DeBeers needs to look at the broader implications of increasing the use of blasting reagents, and provide answers to the questions posed above.

On a practical note, it would be much appreciated if such requests for comments could be circulated by email rather than facsimile, as legibility of the diagrams is limited (and we like to save paper!).

Please don't hesitate to call or email to discuss the foregoing, and I would like to wish you all the best for Christmas and New Years!

Anne

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