

Alan Ehrlich

From: Alan Ehrlich
Sent: Monday, March 21, 2011 11:14 AM
To: 'Adrian Paradis'
Cc: Nicole Spencer; Martin Haefele
Subject: Clarification of IRs 3.6 and 7(c)

Dear Mr. Paradis,

In response to your questions:

1) You asked what "thermal loading from saturation water escaping from voids" in IR 3.6 refers to. The "thermal load" is the heat energy stored in the fluid (ground water) that can flow through the system with a potential ground water flow if the system starts to leak. It is a convective heat transfer. This may later change into a physical erosion once the ground has thawed and is no longer hindering any seepage.

Rewording the phrase you asked about, IR 3.6 would read: "Discuss the probability and consequence of a combination of increased groundwater, hydraulic connectivity by unidentified drill holes and voids, heat stored and transferred with potential groundwater flow (from unfrozen saturated voids located in the block to be frozen), leaked saline coolant from ruptured pipes, or other factors preventing the initial freeze".

2) You asked for more detailed instruction to address IR 7(c). This part of the IR asks if and how tunnels will be frozen or backfilled, and what will happen to their stability and that of any surrounding structures as they freeze.

To answer thoroughly, you should explain exactly what will happen (or could go wrong) when backfilling and freezing all the ancillary openings and tunnels. In particular, explain how backfills will be brought to the optimal humidity conditions for freezing, how freezing will develop and be monitored in those backfills, and give any other useful information in view of defining that the expected performance will be met. Explain what the impact of a malfunction of one or more part of the backfill or freezing would be, and what mitigative measures are planned to counteract such a malfunctioning, at small, local scale, and large/project scale.

I hope this is helpful to your team. Please let me know if you have any other questions.

Alan Ehrlich
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Mackenzie Valley Environmental Impact Review Board

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-----Original Message-----

From: Adrian Paradis [<mailto:Adrian.Paradis@inac-ainc.gc.ca>]
Sent: Thursday, March 17, 2011 8:58 PM
To: Alan Ehrlich; Nicole Spencer

Cc: Andrew Liddiard; Anne Snider; Glen Stephens; Lou Spagnuolo; Ryan Parmenter; Tamara Hamilton; Morag McPherson; Kevin McCormick; Ricki Hurst; Dave Bynski; Erika Nyyssonen; Ken Hall; Ray Case; Steve Clark; Benny Nordahn; James Lawrance; Katherine Silcock; Lisa Colas; Lorraine Seale; Manuel Lim; Mark Palmer; Martin Gavin; Robert Jenkins; Tara Kramers; Yose Cormier; Carla Conkin; Karin Taylor; Desmond O'Connor; Henry Westermann; Lisa Dyer; Mark Cronk; Tony Brown; Daniel Hewitt; Daryl Hockley; Kevin O'Reilly; Lynda Comerford; Gordon VanTighem; Todd Slack

Subject: Clarification of Review Board Information Requests

Mr. Ehrlich,

The Giant Mine Remediation Project Team has reviewed the Information Requests (IRs) received from the Mackenzie Valley Environmental Impact Review Board (Review Board) and is requesting clarification of two IRs.

Specifically, can the Review Board is clarify:

1. what is meant by "thermal loading from saturation water escaping from voids" in IR 3.6; and
2. in 7 (c) by "Details on the saturation, the backfill and associated freezing front penetration are to be provided." Additional instructions are requested to address this IR completely.

If you have any questions please contact me 867.669.2425 or adrian.paradis@inac-ainc.gc.ca.

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