



Water Resources Division
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU X0A 0H0

CIDMS #: 339284

June 9, 2009

Dave Hohnstein
A/Director Technical Services
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0A 1J0

Re: Response to the NWB's June 5, 2009 letter regarding Teck Resources Ltd's Application for Reduction in Security for the Polaris Mine Site (Water Licence 1AR-POL0311)

Dear Mr Hohnstein

Thank you for your correspondence of June 5, 2009 in which you requested that INAC provide additional clarification and justification on the amounts "proposed" for security with respect for ongoing monitoring of the site post license term. You specifically requested this clarification/justification to consider the inclusion of an additional \$815,500.00 for post closure monitoring beyond the monitoring requirements established in the approved post closure monitoring plan of the current license (expires 2011) as well as confirmation that the amounts of security being recommended for individual components include a contingency.

Several documents were reviewed. These include,

- Nunavut Waters and Nunavut Surface Rights Tribunal Act
- Current Water license - #1AR-POL0311
- Quarterly Reports and Annual Reports for 2007 and 2008



- June 14, 2005 Teck Cominco submitted: Polaris Mine Decommissioning and Reclamation – Response to letter of Direction Dated Feb 28, 2005
- June 24, 2008 Teck Cominco submitted: Request for Reduction of Water Quality Monitoring Requirements and Reduction of Reclamation Security
- March 5, 2009 Teck Cominco submitted a letter to the NWB and INAC: “Re: Polaris Mine – Request for Reduction of Reclamation Security (Water Licence NWB1POL0311)”
- May 15, 2009 INAC submitted a letter to the NWB: Response to NWB’s May 5, 2009 letter Teck Cominco’s Security for the Polaris Mine Site
- June 1, 2009 Teck Cominco submitted a letter to the NWB: Response to INAC’s Water Resources Division Letter of May 15, 2009 regarding Teck Cominco’s Security for the Polaris Mine Site
- June 5, 2009 NWB submitted a letter to Teck Cominco: Application for Reduction in Security – Type “A” Water Licence 1AR-POL0311

General

INAC respectfully reminds the Board of its jurisdiction regarding security under Section 76 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act) and Section 12 of the Northwest Territories Water Regulations (continued in Nunavut under Section 173 of the Act). In setting quantum of security regarding an undertaking, the Board may set an amount not exceeding the aggregate costs of abandonment, site restoration, and *ongoing measures that may remain to be taken after the abandonment of the undertaking*. This security is not to be released until the Minister is satisfied that the undertaking is permanently closed or abandoned and that none of the security will be applied under the Act. Also, as you are aware, under section 46 of the Act, cancellation or expiry of the license does not relieve the holder from any obligations imposed by the license. Therefore, to the extent that there may be ongoing monitoring measures required upon expiry of the license, INAC recommends that the Board require appropriate security until such time as the Minister is satisfied that none of the security will be required under the Act.

Clarification/Justification/Contingency

INAC’s security assessment as stated in correspondence to the Board dated May 15, 2009 included an additional \$815,500.00 for post closure monitoring beyond the expiration of the license. Part of that consideration is stated above.



In determining this amount INAC also considered several other factors. First, contaminated sites and other waste disposal sites, in general have post closure monitoring requirements in one form or another for periods far longer than that which is contemplated in the site's approved A&R plan. In fact these periods extend for up to 25 years (see INAC's Abandoned Military Site Remediation Protocol Vol 1 and 2, Dec, 2008). The key is that the proponent has to definitively prove that there will be no adverse effects to the environment as a result of the former activity at the site.

Further to this, there is no comprehensive assessment information that provides details related to the trend analysis of zinc concentrations in Garrow Lake (see annual and quarterly reports). There should be a discussion and rationale provided that considers possible and/or potential impacts to water as a result of previous mining activity. For example one item of concern is Teck's postulation that the elevated levels of zinc noted consistently at mid depth sampling events in Garrow Lake are the result of a "thin accumulated layer of bacterial tissue". This has not been substantiated. These zinc levels are significantly higher than CCME Guidelines for the Protection of Aquatic Life. Will there be remedial action required in the future? Could it be the result of mining? Or is it background? Could the elevated levels of zinc discharge to the receiving environment in the future? (current data – 2007, 2008 indicate all discharges meet license criteria). Another concern related to current post closure monitoring results (2007, 2008) is that Teck has only conducted 2 sampling events at the Garrow lake Center stations (262-3, 3a) and the license requires 3. Teck advises that they cannot conduct mid winter sampling due to the fact that charter aircraft will not land at the site in the dark. This is a legitimate safety issue and Teck advised the Board appropriately, however data related to post closure monitoring is nonetheless not available for assessment. Teck should request changes to their monitoring program as per their license to rectify this situation. All data required in a post closure monitoring program is essential to identify trends, potential impacts, etc.

Second, while no specific contingency amount per se was stated in INAC's May 15, 2009 submission that was related to each reclamation component, the additional monitoring assessment amount (amount based on Teck's submission of Mar 5, 2009) considered contingency actions should current monitoring activities identify a problem. An example would be the findings during INAC's 2008 Site Visit. It was noted that there was subsidence, albeit, minor, at a former portal. Teck has committed to repairing this during the 2009 season. Will future monitoring reveal more remedial measures that must be undertaken? The possibility exists based on historical results of site visits and inspections.

When the license expires and monitoring data is assessed in a comprehensive manner a further determination of security requirements can be undertaken. INAC assumes that this would most likely be part of a public hearing process.



Other

INAC intends to visit the site again this current field season (July, 2009) and is going to assess, among other things, the status of reclamation structures, water quality and determine if Teck addressed items identified in the 2008 Site Visit Report.

INAC also wishes to advise the Board and Teck that reclamation to date appears to have been thorough and generally in compliance with the approved plan. It also should be noted that there are components listed in INAC's assessment that, if completed by Teck during 2009, could warrant a further reduction in security should Teck request such. This would include remediation of the areas identified by INAC during the 2008 site visit – see May 15, INAC's submission to the Board and demobilization of the existing camp.

I trust that this clarifies our security assessment estimate for the Polaris site.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4738 or by email at Andrea.Cull@inac.gc.ca.

Yours truly,

Original Signed By

Andrea Cull
Water Management Specialist

Cc: Kevin Buck – Water Resources Manager, INAC
Bernie MacIsaac – Director of Operations, INAC
Dionne Filiatrault – Executive Director, NWB