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Meeting Minutes

Clyde River Sewage Lagoon – Clyde River
Held on September 16, 2008 10:30 EST, via Conference Call

Attendance:

Name	Representing
Dave Hohnstein	Nunavut Water Board
Phyllis Beaulieu	Nunavut Water Board
Karlette Tunaley	Nunavut Water Board
David Abernethy	Indian and Northern Affairs Canada
Andrea Cole	Indian and Northern Affairs Canada
Bhabesh Roy	CGS - GN
Richard Carbonnier	CGS - GN
Jonathan Balluq	CGS - GN
Kevin Biggar	BGC Engineering Inc.
Jim Oswell	Naviq Consulting
Surinder Aggarwal	Trow Associates Inc.
Steven Burden	Trow Associates Inc.

Agenda	Description	Action
1.	David Hohnstein indicated that the purpose of the meeting was to review the outstanding issues with the water licence application for amendment for the Hamlet of Clyde River related to the construction of the sewage lagoon. In particular, the outstanding items detailed in BGC's review of the geotechnical and geothermal submission. David asked Kevin Bigger review his outstanding concerns with the geotechnical report.	
2.	Kevin Biggar stated that the main concern that BGC has with regards to the geotechnical investigation and report completed by Trow Associates was the slope stability. After some discussion between Kevin Biggar and Surinder Aggarwal, Kevin concluded that he was in agreement with the works completed in the geotechnical report, however, believes that it may be possible that a failure mode for the slope has not been reviewed. Mr. Biggar suggested that it may be difficult to explain his concerns over a conference call and he would provide a sketch to Trow detailing the failure mode he would like Trow to review. It was agreed that Kevin Biggar would provide the sketch and Trow would review the mode of failure and provide further comments or analysis.	K. Biggar

3. Kevin Biggar stated that the other outstanding issue with regards to the geotechnical / geothermal report was the appropriateness of extrapolating the results from the geothermal analysis for the new sewage lagoon berms to the rehabilitated existing berm. Jim Oswell responded that he could see his point of view with regards to the analysis, however, does not feel that extensive geotechnical / geothermal analysis of the interior berm is warranted as the current design is to rehabilitate the existing berm to a 3H:1V slope, which is generally considered stable or low to moderate risk for failure. Given if the existing berm did breach, the entire contents of the upper cell could be contained in the lower cell within the freeboard available. Therefore the negative impact on the environment for breach would be negligible given the low to moderate risk of failure and the low to negligible impact of such a failure on the environment. From a risk assessment standpoint the risk to the environment would also be considered low to negligible. This low to negligible risk does not warrant substantial additional work. Kevin Biggar conceded the point, stating that this rationale had not been communicated well in previous reporting and response to comments.

4. Kevin Biggar asked for clarification on the installation of the thermistors installation. Steve Burden confirmed that as per the response to BCG's original comments, the thermistors will be installed in 5 m casings, as opposed to the 2 m originally proposed.

5. Kevin Biggar enquired about the possibility of installing thermistors in the liner key to better monitor the behaviour of the permafrost. Jim Oswell responded that it is possible to install thermistors at an angle, however, there are concerns about installing thermistors too close to a liner as installation may damage the liner. When it was enquired about installing the thermistors as part of the installation liner, Jim Oswell responded that that this is not the preferred method as the installation of the liners are generally protected during backfill which inherently leads to a possible weakness in the overall construction of the berm.

6. This concluded the review of the geotechnical / geothermal issues. Kevin Biggar and Jim Oswell excused themselves from the conference call.

7. David Abernethy expressed concerns with regards to the absence of an operation and maintenance manual prior to commissioning of the facility. Following discussions on the concerns and alternatives, it was recommended that a condition a draft operations and maintenance manual be submitted 90 – 120 days prior to commissioning for review and comment by regulatory authorities.

7. David Hohnstein raised the issue with regards to the Hamlet's existing water licence expiring on September 15, 2008, and the renewal process extending 60 – 90 days. It was proposed that the existing licence be extended for 90 days, allowing the Hamlet to stay in compliance. As part of this extension, conditions would be applied with regards to quarrying and protection of water courses. As well as the need for a spill contingency plan, related to the quarrying practice, Steve Burden indicated that Trow would be able to provide a spill contingency plan for review in a timely fashion. This would allow the quarrying practice to proceed shortly after the water licence extension was put in place. David Hohnstein replied that they would have to check with their legal representation to ensure that this approach was possible. It was agreed that all parties would attempt to co-operate so that the amended licence would be issued within one week, plus or minus, and the spill contingency plan would follow immediately to allow work to proceed. NWB/ Trow

8. Meeting was adjourned at 12:30 EST.

Note : These minutes were prepared from notes recorded by Trow at the meeting and are considered a true and accurate record of the items discussed. Notice of discrepancies, errors, and /or omissions should be submitted to Trow within seven (7) days or the minutes will be accepted as distributed.

Prepared By: Steve Burden

Reviewed By: Steve Burden

Distribution: All in attendance