

Graham, Cory (SD)

From: Paul Bauer <paulb@millerenvironmental.mb.ca>
Sent: June-20-18 11:25 AM
To: Graham, Cory (SD)
Cc: Burland Ross, Siobhan (SD); Kneeshaw, Tyler (SD); Yolo Ortiz; Dave Howes
Subject: RE: Repository Cell Expansion - Miller Environmental Corporation

Hello Cory,

Please find our response below.

Please contact me directly at 204-228-8340 should you require further clarification.

Regards,
Paul
Good Morning Dave,

The Proposal does not clearly state what the construction is going to consist of:

“The selection of which alternate base liner configuration (60 mil liner or recompacted clay liner), will be addressed at the time of construction. “

This is very unusual. The drawings only show a cut and fill type cell, with no liner apparent.

The liner system will consist of; a clay liner as per the last paragraph of page 2 of the Dillon report:

“The current approved liner system requires a recompacted clay liner to a minimum thickness of 1 meter for the side slopes and 1 meter for the base of the active area with a hydraulic conductivity of 1×10^{-7} cm/second or less (as per Licence No. 58 HW S2 RRRR, Condition 42). Two soil samples from the native clay material were analyzed for hydraulic conductivity by the flexible wall method (ASTM D5084) as part of TREK’s geotechnical investigation. Hydraulic conductivity results indicated values of 2.52×10^{-8} cm/s (TH17-08 at 1.5-2.1m) and 1.41×10^{-8} cm/s (TH17-01 at 4.6 - 5.2m), meeting the provincial cell liner hydraulic conductivity requirements.”

In addition, a 60 mil HDPE liner will be installed overlying the clay liner, creating a composite liner system. The HDPE liner will only be installed in the phase 1 zone, as indicated on Plan drawing 1. Phase 2 will have the clay liner prepared, but will not be commissioned for the receiving of treated solid waste at this time. A lined separation berm, as indicated in drawings 1 and 2 will be constructed between phase 1 and phase 2.

Also there is a statement included in the submission “Depending on the leachate generation rates, it might be required to collect and apply it to the top of the processed material”. To my understanding, this is not a practice currently endorsed for single liner cells in Manitoba.

Our current leachate management utilizes designed leachate evaporators (Land Shark Brand, 460v 3 phase), commonly used at landfills throughout North America. We have never and we don’t intent to utilize the method described in the Dillon report “collect and apply it to the top of the processed material”. This is an inaccurate statement that was not caught and corrected by our engineering group. Our evaporation system does not promote or require any leachate recirculation through the active cell in any manner. It is our plan to remove the leachate from the operating repository zone and evaporate the leachate utilizing the above evaporators. This will be included in the new revision of the Repository Operating Plan (as per Licence No. 58 HW S2 RRRR, Condition 54).

We will submit the new revision of the Operating Plan with detailed information on leachate management to your office at a later specified date so that we do not delay the construction schedule of the cell.

As I noted in an email to you in December 2017, the new repository cell would be approved under existing licence conditions, so this is not a Notice of Alteration, however sufficient details regarding the construction of a new cell is required to make a recommendation for the director.

The submission, as it sits does not clarify the type of liner to be used. The method by which the existing lined cell will be connected to the expansion, or if it will be a separate entirely.

This construction is intended to be a separate cell at this time. Any future "tie in" between the two cells will be made under a future design submission to your office at a later date.

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Miller Environmental Corporation

ISO 9001 14001 & OHSAS 18001