



Conservation and Water Stewardship

Environmental Stewardship Division
Environmental Approvals Branch
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File: 150.20

October 22, 2015

Gisele Smith
Acting Chief Administrative Officer
Local Government District of Pinawa
Box 100, 36 Burrows Road
Pinawa, MB R0E 1L0

Dear Ms. Smith:

Re: Notice of Alteration – Local Government District of Pinawa – Wastewater Treatment Lagoon – Environment Act Licence No. 230 VC R

I am responding to the October 8, 2015 Notice of Alteration (NoA) letter wherein it is proposed that the design of the bottoms of two cells of the Local Government District of Pinawa wastewater treatment lagoon (lagoon) be adjusted as a result of soil conditions encountered during construction. Environment Act Licence No. 230 VC R (Licence) applies to this lagoon.

The NoA letter identifies an approach to work with the site soil conditions such that continuous clay soil liners can be provided for Secondary Cells #3 and #4 that are currently under construction as follows:

1. In areas of the cells where unsuitable sandy clay till soil has been encountered at the uppermost 0.5 m of the excavated cell bottom, the areas will be excavated down an additional 0.5 m through the unsuitable soil and 1.0 m of clay soil placed to form the liner;
2. In areas of the cells where unsuitable sandy clay till soil has been encountered 0.5 m to 1.0 m below the excavated cell bottom, the areas will be built up with 0.5 m of suitable clay soil to achieve a 1.0 m thick clay soil liner;
3. A borrow area will be established within Secondary Cell #3 in an area of the cell floor where clay type soils exist to a depth of approximately 2.5 m to obtain clay soil liner material to be placed where unsuitable soil types have been encountered in other areas of this cell. The borrow area would not be excavated beyond 0.6 m below the design floor such that 1.0 m of in situ clay soil liner would remain in place at the bottom of the borrow area. The borrow area would then be backfilled with the sandy clay till type soil that is not suitable for use as soil liner material; and
4. Bedrock was encountered in two instances within the top 1 metre of existing clay type soil that was to form the liner of the bottom of Secondary Cell #3. The impacted areas will be built up with suitable clay soil to achieve a minimum 1.0 m thick clay soil liner and a 0.3

metre thick layer of rip rap underlain with geotextile will be placed over top of the soil liner at these locations to protect the clay soil liner.

Upon review of the Notice of Alteration and the Licence, I have decided that the environmental impacts of the proposed adjustments to the clay soil liner of these cells are insignificant. Accordingly, I hereby approve the proposed adjustments to the clay soil liner of these cells pursuant to the following conditions:

1. The clay soil liners must be adequately integrated at all locations so as to provide a continuous clay soil liner that satisfies the requirements of Clause 22 of the Licence at all locations of the clay soil liners of each cell;
2. The location of any borrow area within Secondary Cell #3 must be backfilled with compacted soil so as to attain an elevation equivalent to the design elevation of the bottom of that cell;
3. Secondary Cell #3 must remain available to undergo supplementary inspections in accordance with Clauses 23, 24 and 25 of the Licence prior to Manitoba Conservation and Water Stewardship providing authorization to use Secondary Cell #3;
4. Inspection of the clay soil liner of Secondary Cell #4 must be completed in accordance with the Licence requirements once construction of the cell has been completed; and
5. The areas where adjustments to the design of the clay soil liner have been implemented must be located by the consultant or contractor and identifiable during inspections of the clay soil liners by Manitoba Conservation and Water Stewardship Environment Officers and must be recorded and displayed on the record drawings upon completion of the record drawings.

If you have any questions or would like to discuss the foregoing, please contact Robert Boswick, Environmental Engineer, at 204- 945-6030.

Yours sincerely,

“original signed by”

Tracey Braun, M.Sc.
Director

- c. Dana Bredin, P.Eng., Geotechnical/Civil Engineer – WSP
Don Labossiere/Donna Smiley/Diane Oertel – Environmental Compliance and Enforcement, Manitoba Conservation and Water Stewardship