

September 13, 2016

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Mr. Robert Boswick, P. Eng.  
Manitoba Sustainable Development  
Environmental Approvals Branch  
123 Main Street, 2<sup>nd</sup> Floor  
Winnipeg Manitoba  
R3C 1A5

**M-706.01**

**via email only**

Dear Mr. Boswick,

**RE: Minitonas Wastewater Treatment Lagoon – Phase II EAP Notice of Alteration - Sludge to Cell #2**

Further to our discussion this afternoon, at the pre-construction meeting for the Minitonas Lagoon project held onsite yesterday, the Municipality of Minitonas-Bowsman requested if a change could be made to the proposed Environment Act License and related Notice of Alteration.

In the Notice of Alteration, it was proposed that the sludge from Cell #1 (the old secondary cell) be moved to Cell #3 (the new primary cell). The Municipality is now proposing to move the sludge from Cell #1 (the old secondary cell) to Cell #2 (the old primary cell).

The Municipality is concerned that by moving the sludge into Cell #3, there is a risk of damaging the PVC liner, either during the current sludge relocation, or in the future when the sludge is removed from Cell #3 for ultimate disposal. As well, having all the sludge in one cell is expected to facilitate future removal and disposal works.

In moving the sludge to Cell #2, the remaining terms of the license will be followed, i.e. the maximum sludge depth will be 1.5 m, with 0.25 m of liquid cover over the sludge, and a 1 m freeboard. (To maintain the freeboard, the effective maximum sludge depth will be 1.25 m.)

Based upon the sludge assessment by Assiniboine Injections, there is 5,889 m<sup>3</sup> of sludge in Cell #2, and 4,260 m<sup>3</sup> of sludge in Cell #1, thus after sludge relocation, there will be a total of 10,149 m<sup>3</sup> of sludge in Cell #2, which corresponds to a sludge depth of approximately 1.0 m, which is below the license requirement.

Provisions will be made to allow surplus liquid to be discharged from Cell #2 to either Cell #1 or Cell #4, so the cell does not become overfull.

To avoid damage from lateral hydraulic pressure on the liner of Cell #3, liquid will be kept in the cell.

Following sludge relocation, the works on Cell #1 will remain the same, i.e. installation of HDPE liner, complete with degassing system.

When the current phase of the project is finished:

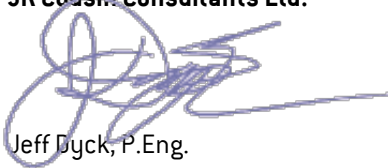
- Cell #1 will serve as primary cell;
- Cell #2 will serve as temporary sludge storage until final removal and disposal;
- Cell #3 will be unused, but kept full of liquid;

- Cell #4 will serve as the secondary cell.

Based upon our discussion, it was understood that this additional alteration will likely be approved. Please provide approval to proceed with this additional alteration, as the contractor is hoping to start the relocation of sludge on September 19<sup>th</sup>. If you have any questions, please contact the undersigned.

Yours truly,

**JR Cousin Consultants Ltd.**



Jeff Dyck, P.Eng.  
Senior Municipal Engineer, Principal

cc: Kasey Chartrand  
Travis Parsons / Tyler Foxton

Municipality of Minitonas-Bowsman  
MWSB

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