



Environmental Stewardship Division
Environmental Approvals Branch
1007 Century Street, Winnipeg Manitoba R3H 0W4
T 204 945-8321 F 204-945-5229
www.gov.mb.ca/sd/

File No.: 4522.10

December 16, 2019

Joann Murphy, Chief Administrative Officer
Rural Municipality of Gimli
Box 1246
Gimli, MB R0C 1B0
Email: jking@rmgimli.com

Dear Joann Murphy:

RE: Rural Municipality of Gimli – Biosolids Storage Facility – Notice of Alteration Approval – Environment Act Licence No. 2473 R

I am responding to the Environment Act Proposal dated June 13, 2018 submitted by Mr. Jason Bunn, P.Eng., of WSP Canada Inc. and additional information dated October 23, 2019 submitted by Mr. Dana Bredin, P.Eng., of WSP Canada Inc., relative to a request for alteration to Environment Act Licence No. 2473 R (Licence), originally issued for the operation of the Development being the land application of biosolids from the Gimli Wastewater Treatment Plant onto lands in Parcel B Plan 31970 in Sections 12-19-3EPM, 13-19-3EPM, 7-19-4EPM, and 18-19-4EPM in the Rural Municipality of Gimli. The June 13, 2018 Environment Act Proposal and the October 23, 2019 submission is considered a Notice of Alteration (NoA) pursuant to Section 14 of The Environment Act.

The intent of the NoA is as follows:

- a) construct a 3-cell biosolids storage pond on portions of SW 10-21-3 EPM that will provide a total storage capacity of 13,740 cubic metres or approximately 3 years; and
- b) sample and test the in-situ till which is proposed to be used as a liner material for the bottom of the cells of the biosolids storage pond following the Standard Practice for Obtaining Block Samples (ASTM D7015) and the Standard Test Method for One-Dimensional Consolidation Properties of Cohesive Soil (ASTM D4186) to determine the material's hydraulic conductivity.

The June 13, 2018 Environment Act Proposal submission was for construction of a 2-cell biosolids storage facility with a plan to construct a 3rd cell in the near future.

Upon review of the NoA request and pursuant to Section 14(2) of the Environment Act, I hereby approve the implementation of the October 23, 2019 Notice of Alteration request in accordance with the specifications, limits, terms, and conditions prescribed under Attachment "A" of this approval.

All other clauses of Environment Act Licence 2473R remain in effect. This approval is contingent on your providing pertinent information for land application of biosolids by January 31, 2019 and receiving an updated Environment Act Licence in the near future.

Should you have any questions concerning this approval, please contact Asit Dey, Environmental Engineer at (204) 945-2614 or at asit.dey@gov.mb.ca.

Yours sincerely,



Siobhan Burland Ross, M.Eng., P.Eng.
Director
The Environment Act

Attachment

c: Dana Bredin, P.Eng., WSP Canada Inc.
Shannon Kohler/Yvonne Hawryliuk/Tyler Kneeshaw/Katie Martin, Environmental Compliance and Enforcement
Asit Dey, Environmental Approvals
Public Registry

Attachment "A" to December 16 Notice of Alteration Approval Letter

Pursuant to December 16, 2019 Notice of Alteration Approval Letter for Construction of the Biosolids Storage Ponds

DEFINITION

"odour nuisance" means a continuous or repeated odour, smell or aroma, in an affected area, which is offensive, obnoxious, troublesome, annoying, unpleasant or disagreeable to a person:

- a) residing in an affected area;
- b) working in an affected area; or
- c) present at a location in an affected area which is normally open to members of the public;

if the odour, smell or aroma

- d) is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director and within a 90-day period, from 5 different persons falling within clauses (a), (b) or (c), who do not live in the same household; or
- e) is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses (a), (b) or (c) and the Director is of the opinion that if the odour, smell or aroma had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90-day period, from 5 different persons who do not live in the same household.

SPECIFICATIONS, LIMITS, TERMS, AND CONDITIONS

Respecting Odour Nuisance

1. The Licencee shall not cause or permit an odour nuisance to be created as a result of the construction, operation or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate an odour nuisance.

Respecting Equipment Breakdown or Process Upset

2. The Licencee shall, in the case of physical or mechanical equipment breakdown or process upset where such breakdown or process upset results or may result in the release of a pollutant in an amount or concentration, or at a level or rate of release, that causes or may cause a significant adverse effect, immediately report the event by calling the 24-hour environmental accident reporting line at 204-944-4888 (toll-free 1-855-944-4888). The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event.
3. The Licencee shall, following the reporting of an event pursuant to Clause 2:
 - a) identify the repairs required to the mechanical equipment;
 - b) undertake all repairs to minimize unauthorized discharges of a pollutant;

- c) complete the repairs in accordance with any written instructions of the Director; and
 - d) submit a report to the Director about the causes of breakdown and measures taken, within one week of the repairs being done.
4. The Licencee shall, during construction and operation of the Development, report spills of fuels or other contaminants to an Environment Officer in accordance with the requirements of Manitoba Regulation 439/87 respecting Environmental Accident Reporting or any future amendment thereof.

Respecting All Weather Access Road

5. The Licencee shall construct and maintain an all-weather access road to access the cells of the biosolids storage pond as identified in Appendix ‘1’ of this approval.

Respecting Construction - General

6. The Licencee shall notify the assigned Environment Officer not less than two weeks prior to beginning construction of the cells of the biosolids storage pond as identified in Appendix ‘1’ of this approval. The notification shall include the intended starting date(s) of construction and the name(s) of the contractor(s) responsible for the construction.
7. The Licencee shall:
- a) conduct all ditch related work activities during no flow or dry conditions and not during the April 1 to June 15 fish spawning and incubation period;
 - b) not construct the Development during periods of heavy rain;
 - c) place and/or isolate all dredged and construction material where it will not erode into any watercourse;
 - d) implement effective long-term sediment and erosion control measures to prevent soil-laden runoff, and/or silt from entering any watercourse during construction and until vegetation is established;
 - e) routinely inspect all erosion and sediment control structures and immediately complete any necessary maintenance or repair;
 - f) revegetate soil exposed during the construction of the Development with native or introduced grasses or legumes. Native species shall be used to revegetate areas where native species existed prior to construction; and
 - g) use rock that is free of silt and clay for riprap.
8. The Licencee shall, during construction of the Development, operate, maintain and store all materials and equipment in a manner that prevents any deleterious substances (fuel, oil, grease, hydraulic fluids, coolant, paint, uncured concrete and concrete wash water, etc.) from entering the biosolids storage pond and any nearby

watercourses, and have an emergency spill kit for in water use available on site during construction.

9. The Licencee shall dispose of non-reusable construction debris from the Development at a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 37/2016 respecting Waste Management Facilities, or any future amendment thereof, or a Licence issued pursuant to The Environment Act.
10. The Licencee shall locate all fuel storage and equipment servicing areas established for the construction and operation of the Development a minimum distance of 100 metres from any waterbody, and shall comply with the requirements of Manitoba Regulation 188/2001 respecting Storage and Handling of Petroleum Products and Allied Products or any future amendment thereof.
11. The Licencee shall not alter local drainage patterns by the construction of the Development.
12. The Licencee shall, during construction and maintenance of the Development, prevent the introduction and spread of foreign aquatic and terrestrial biota by cleaning equipment prior to its delivery to the site of the Development in accordance with the requirements of Manitoba Regulation 173/2015 respecting Aquatic Invasive Species, or any future amendment thereof.

Respecting Fence

13. The Licencee shall install and maintain a fence around all cells of the Development to limit access. The fence shall be a minimum of 1.2 meters high and have a locking gate, which shall be locked at all times except to allow access to the cells of the biosolids pond.

Respecting Construction – Liners

14. The Licencee shall, prior to the construction of the dykes of the biosolids storage pond as identified in Appendix ‘1’ of this approval:
 - a) remove all organic topsoil from the area where the dykes will be constructed; and
 - b) remove all organic material for a depth of 0.3 metres and a width of 3.0 metres from the area where the cut-off liner will be constructed.
15. The Licencee shall construct and maintain the cells of the biosolids storage pond as identified in Appendix ‘1’ of this approval with a continuous liner under all interior surfaces of each cell in accordance with the following specifications:
 - a) the liner shall be made of clay;

- b) the liner shall be at least one metre in thickness;
- c) the liner shall have a hydraulic conductivity of 1×10^{-7} centimetres per second or less at all locations; and
- d) the liner of the cells of the biosolids storage pond, as identified in Appendix ‘1’ of this approval, shall be constructed to an elevation of 2 metres above the base of any cells of the biosolids storage pond.

Respecting Operation - General

15. The Licencee shall obtain and maintain classification of the Development pursuant to Manitoba Regulation 77/2003 respecting Water and Wastewater Facility Operators or any future amendment thereof and maintain compliance with all requirements of the regulation including, but not limited to, the preparation and maintenance of a Table of Organization, Emergency Response Plan and Standard Operating Procedures.
16. The Licencee shall carry out the operation of the Development with individuals properly certified to do so pursuant to Manitoba Regulation 77/2003 respecting Water and Wastewater Facility Operators or any future amendment thereof.
17. The Licencee shall transport biosolids generated from wastewater treatment plant located in portions of 18-19-4 EPM in the Rural Municipality of Gimli to the cells of the biosolids storage pond located on portions of SW 10-21-3 EPM in containers in such a manner to prevent loss of biosolids, sludge solids and associated liquids to the satisfaction of an Environment Officer.
18. The Licencee shall operate and maintain the cells of the biosolids storage pond of the Development as identified in Appendix ‘1’ of this approval in such a manner that:
 - a) the depth of biosolids in the cells of the biosolids storage pond of the development does not exceed 1 metre; and
 - b) a minimum of 1.0 metre freeboard is maintained in the cells of the biosolids storage pond at all times.
19. The Licencee shall submit to the Director of Approvals Branch all the pertinent information for land application of biosolids by January 31, 2019 in order to obtain a revised Environment Act Licence for land application of biosolids generated from the cells of the biosolids storage pond.

Respecting Records Maintenance and Reporting

20. The Licencee shall during each year maintain the following records and retain them for a minimum period of five calendar years:

- a) reports of visual inspections of the biosolids storage pond conducted at a minimum of once per month;
 - b) estimated volume of biosolids hauled into the biosolids storage facility;
 - c) estimated quantity of biosolids taken out of the biosolids storage facility for land application purposes;
 - d) dates when the wastewater collected at the sumps hauled to the Gimli wastewater treatment plant;
 - e) estimated volume of wastewater hauled to the Gimli wastewater treatment plant;
 - f) maintenance and repairs; and
 - g) updated organization charts identifying all certified operators, including backup operators.
21. The Licencee shall submit an annual report to the Environment Officer by February 28 of the following year including all records required by Clause 20 of this Licence.

Respecting Operating Depth and Freeboard Non-Compliance Events

22. The Licencee shall immediately notify the Director each time the operating depth of any cell of the biosolids storage pond does not comply with the maximum operating depth and minimum freeboard requirements for that cell as specified in Clause 18 of this approval.
23. The Licencee shall, if reporting is required pursuant to Clause 22 of this Licence in two consecutive years:
- a) engage the services of a qualified consultant, acceptable to the Director, to undertake an investigation of the biosolids storage pond and related infrastructure, to determine the ability or inability of the existing system to meet the biosolids generation capacity of the Gimli wastewater treatment plant. The investigation shall include but not be necessarily limited to the following:
 - i) diagnosis of the cause(s) of the recent exceedances of maximum operating depth;
 - ii) current biosolids storage capacity of the system; and
 - iii) operating procedures;
 - b) provide to the Director, within four months of the notification given pursuant to Clause 22 of this Licence, an engineering report describing in detail the results and observations concluded by virtue of the investigation; and
 - c) provide to the Director, within four months of the report provided pursuant to Clause b) of this section, a remedial action plan in the form of a detailed engineering report describing recommended modifications, repairs or upgrading works in order to be compliant with Clause 18 of this approval.

Respecting Soil Liner Sampling, Testing and Reporting

24. The Licencee shall arrange with the designated Environment Officer a mutually acceptable time and date for any required soil sampling between the 15th day of May and the 15th day of October of any year, unless otherwise approved by the Environment Officer.
25. The Licencee shall take and test undisturbed soil samples, in accordance with the Standard Practice for Obtaining Block Samples (ASTM D7015) from the soil liners of the cells of the biosolids storage pond; the number and location of samples and test methods to be specified by the designated Environment Officer up to a maximum of 10 samples per cell.
26. The Licencee shall, not less than 2 weeks before any new or upgraded clay-lined cells of the biosolids storage pond is placed in operation, submit for the approval of the Environment Officer the results of the tests carried out, in accordance with the Standard Test Method for One-Dimensional Consolidation Properties of Cohesive Soil (ASTM D4186), pursuant to Clause 25 of this Licence.

Respecting Record Drawings

27. The Licencee shall:
 - a) prepare updated "record drawings" for the Development and shall label the drawings "record drawings"; and
 - b) provide to the Director, within four months of commissioning the Development, two electronic copies of the "record drawings" of the Development.

APPENDIX '1' TO THE DECEMBER 16, 2019 NOTICE OF ALTERATION APPROVAL

Pursuant to Clauses 5, 6, 14, 15, and 18

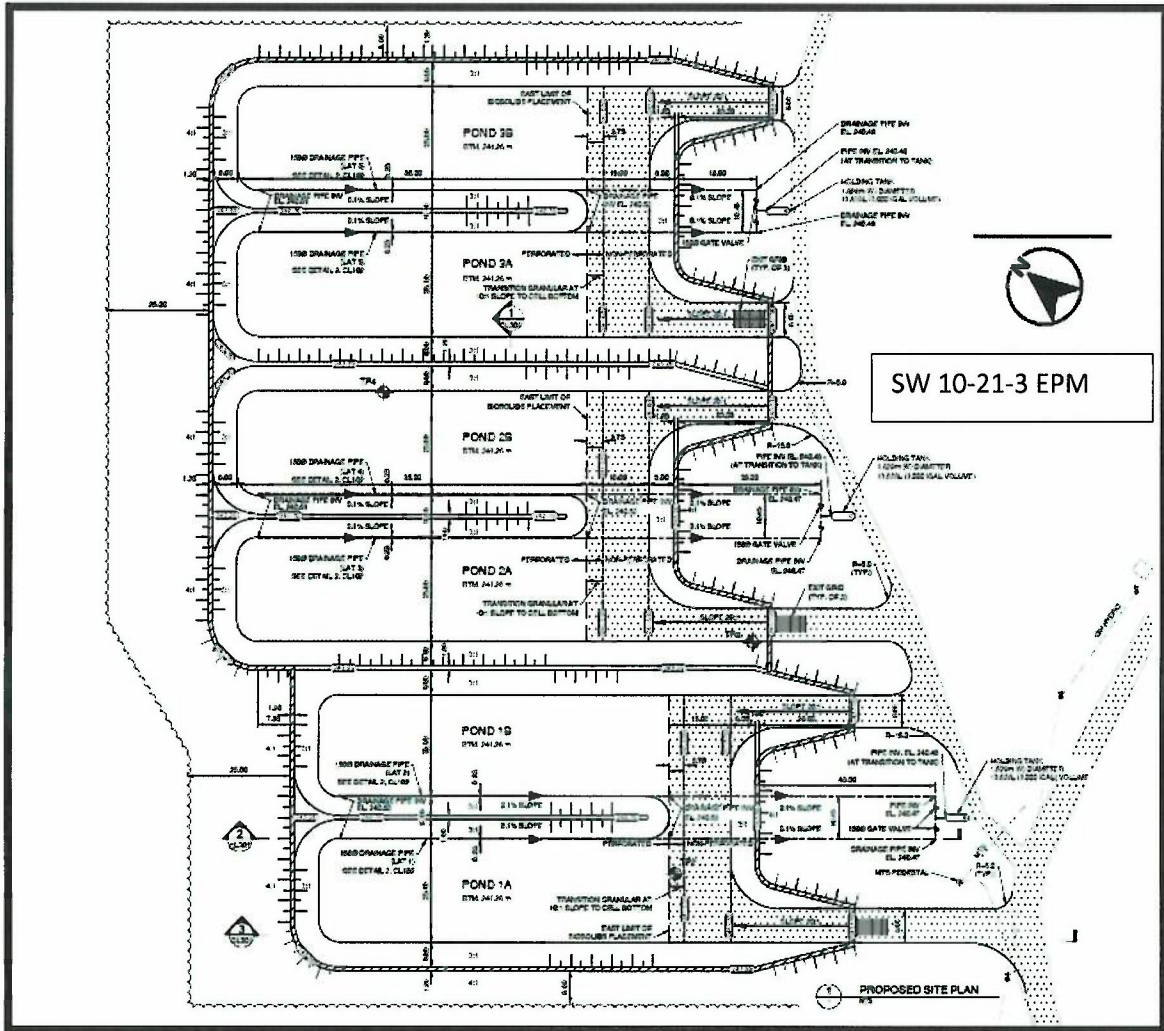


Figure 1: The Cells of the Proposed Biosolids Storage Facility

Not to scale

