



Sustainable Development

Environmental Stewardship Division
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File No. 78.10

May 2, 2018

Ken Peacock
Town of Powerview-Pine Falls
Box 220, 277 B Main Street
Powerview MB R0E 1P0
Email: cao@powerview-pinefalls.com

Dear Ken Peacock:

**Re: Town of Powerview-Pine Falls Wastewater Treatment Lagoon – Environment Act
Licence No. 638 R**

I am responding to the March 20, 2018 letter submitted by you relative to a request for alteration to Environment Act Licence No. 638 R (Licence), originally issued for continued operation of an existing wastewater treatment lagoon system on Parcel 33, reg. Plan No. 11673 in Pine Falls, Manitoba, serving the Pine Falls town site, with discharge of effluent to the Winnipeg River. The March 20, 2018 letter is considered a Notice of Alteration (NoA) pursuant to Section 14 of the Environment Act.

The intent of the NoA is to repeal Clause 2(a) related to the continuously discharging wastewater treatment system, and to remove the total coliform analysis and the total coliform limit as a condition for effluent discharge as the current wastewater effluent standards for wastewater treatment facilities do not include a total coliform limit to be met before the treated effluent is discharged.

Upon review of the NoA, I am satisfied that the identified changes in the environmental effects as would result from the proposed alterations will be insignificant. Therefore, pursuant to Section 14(2) of The Environment Act, I hereby repeal Clauses 1(d) and 2(a) of the Licence, and alter Clause 2 of the Licence as follows:

Clause 2

- (a) The Licencee shall not discharge effluent from the wastewater treatment lagoon:
- i) where the organic content of the effluent, as indicated by the five day carbonaceous biochemical oxygen demand, is in excess of 25 milligrams per litre;
 - ii) where the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;

- iii) where the total suspended solids content of the effluent is in excess of 25 milligrams per litre;
- iv) between the 1st day of November of any year and the 15th day of May of the following year unless otherwise approved by the Director;
- v) when flooding from any cause is occurring along the effluent drainage route; or
- vi) when such a discharge would cause or contribute to flooding in or along the effluent drainage route;

(b) The Licencee shall operate and maintain the wastewater treatment lagoon in such a manner that:

- i) the organic loading on the primary cell, as indicated by the five-day biochemical oxygen demand, is not in excess of 56 kilograms per hectare per day;
- ii) the depth of liquid in the primary cell and the secondary cells does not exceed 1.5 metres;
- iii) a 1.0 metre freeboard is maintained in the primary cell and the secondary cells at all times;
- iv) there is no contamination of groundwater; and
- v) the release of offensive odours is minimized.

(c) The Licencee shall, when chlorine is used as a disinfecting agent:

- i) notify the Director in advance;
- ii) dechlorinate effluent prior to discharge;
- iii) obtain grab samples prior to and daily during the discharge period and have them analyzed for total residual chlorine; and
- iv) not discharge effluent where the concentration of the total residual chlorine is in excess of 0.02 milligrams per litre.

(d) The Licencee shall, prior to each effluent discharge campaign, obtain grab samples of the treated wastewater and have them analyzed for:

- i) the organic content as indicated by the five-day carbonaceous biochemical oxygen demand and expressed as milligrams per litre;
- ii) the total suspended solids content expressed as milligrams per litre;
- iii) the fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
- iv) the total phosphorus content expressed as milligrams per litre; and
- v) the unionized ammonia nitrogen expressed as milligrams per litre expressed as nitrogen (N), at $15^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

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

- i) reports of visual inspections conducted at a minimum of once per month;
- ii) wastewater sample dates;
- iii) original copies of laboratory analytical results of the sampled wastewater;
- iv) a summary of laboratory analytical results;
- v) effluent discharge dates;
- vi) estimated effluent discharge volumes;
- vii) maintenance and repairs; and
- viii) a summary of any sanitary sewer overflows.

(f) The Licencee shall submit an annual report to the Environment Officer by February 28 of the following year including all records required by Clause 2(e) of this Licence.

Please find enclosed a list of definitions defining terms used in this approval letter and some additional terms for your reference only.

All other clauses in Environment Act Licence No. 638 R remain in effect. This approval is contingent on your receiving an updated Environment Act Licence to be issued 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,


Tracey Braun, M.Sc.
Director

c: Don Labossiere/Scott Davies/Diane Oertel, Environmental Compliance and Enforcement Branch

DEFINITIONS

Please find below a list of definitions provided pursuant to the May 2, 2018 Notice of Alteration Approval Letter.

"accredited laboratory" means an analytical facility accredited by the Standards Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Sustainable Development to be equivalent to the SCC, or be able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

"affected area" means a geographical area, excluding the property of the Development;

"Approvals Branch" means the Environmental Approvals Branch of Manitoba Sustainable Development, or any future branch responsible for issuing licenses under The Environment Act;

"approved" means approved by the Director or an assigned Environment Officer in writing;

"approved facility" means a facility operating in accordance with the requirements of The Environment Act and the regulations thereunder;

"ASAE" means the American Society of Agricultural Engineers;

"ASTM" means the American Society for Testing and Materials;

"base" means the exposed and finished elevation of the bottom of any cell of the wastewater treatment lagoon;

"bioassay" means a method of determining toxic effects of industrial wastes and other wastewaters by using viable organisms;

"day" means any 24-hour period;

"Director" means an employee so designated pursuant to The Environment Act;

"effluent" means treated wastewater flowing or pumped out of the wastewater treatment lagoon;

"Environment Officer" means an employee so designated pursuant to The Environment Act;

"fecal coliform" means aerobic and facultative, Gram-negative, nonspore-forming, rod-shaped bacteria capable of growth at 44.5°C, and associated with fecal matter of warm-blooded animals;

"five-day biochemical oxygen demand (BOD₅)" means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within 5 days at a temperature of 20°C;

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"five-day carbonaceous biochemical oxygen demand (CBOD5)" means that part of the oxygen demand usually associated with biochemical oxidation of carbonaceous organic matter within five days at a temperature of 20°C, excluding the oxygen demand usually associated with the biochemical oxidation of nitrogenous organic matter;

"flooding" means the flowing of water onto lands, other than waterways, due to the overtopping of a waterway or waterways;

"grab sample" means a quantity of wastewater taken at a given place and time;

"high water mark" means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is at the maximum allowable liquid level or the line of the exterior of the perimeter dykes which is reached during local flooding;

"hydraulic conductivity" means the quantity of water that will flow through a unit cross-sectional area of a porous material per unit of time under a hydraulic gradient of 1.0;

"influent" means water, wastewater, or other liquid flowing into a wastewater treatment facility;

"in-situ" means on the site;

"low water mark" means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is discharged;

"MPN Index" means the most probable number of coliform organisms in a given volume of wastewater which, in accordance with statistical theory, would yield the observed test result with the greatest frequency;

"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 clause s 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 clause s 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;

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"operator" means the company or person who is responsible for the day-to-day maintenance and operation of the Development;

"primary cell" means the first in a series of cells of a wastewater treatment lagoon system and which is the cell that receives the untreated wastewater;

"record drawings" means engineering drawings complete with all dimensions which indicate all features of the Development as it has actually been built;

"riprap" means small, broken stones or boulders placed compactly or irregularly on dykes or similar embankments for protection of earth surfaces against wave action or current;

"secondary cell" means a cell of the wastewater treatment lagoon system which is a cell that receives partially treated wastewater from the primary cell and retains the wastewater for a period of time;

"sludge" means accumulated solid material containing large amounts of entrained water, which has separated from wastewater during processing;

"sludge solids" means solids in sludge;

"solid waste" means solid waste as defined in Manitoba Regulation 37/2016, or any future amendments thereto, respecting Waste Management Facilities, excluding waste rock;

"Standard Methods for the Examination of Water and Wastewater" means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation;

"total residual chlorine" means the sum of free chlorine and combined chlorine, including inorganic chloramines;

"wastewater" means the spent or used water of a community or industry which contains dissolved and suspended matter;

"wastewater collection system" means the sewer and pumping system used for the collection and conveyance of domestic, commercial and industrial wastewater; and

"wastewater treatment lagoon" means the component of the development which consists of an impoundment into which wastewater is discharged for treatment and storage.