



Conservation

Environmental Stewardship Division
Environmental Assessment and Licensing Branch
123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5
T 204 945-7100 F 204 945-5229
www.gov.mb.ca/conservation/eal
CLIENT FILE: 37.20

Jim Fenske, C.A.O.
Town of Beausejour
P. O. Box 1028
Beausejour MB R0E 0C0

November 2, 2009

Dear Mr. Fenske :

Mr. Glenn Steinke of the Town of Beausejour requested several alterations to the Town's wastewater collection and treatment facilities in a letter to me of July 9, 2009. The alterations involved lift station upgrades, lagoon dyke repairs, sludge removal from the primary cell of the lagoon, and installation of a truck dumping station. The lift station upgrades are regulated through the Office of Drinking Water. For the other alterations, the potential environmental effects are insignificant, and so approval can be provided pursuant to Section 14(2) of the Environment Act to implement the alterations. Environment Act Licence No. 1303 R dated November 2, 2009 is enclosed.

This licence provides for the continued operation of the wastewater treatment facility with alterations to the internal dykes, the spreading of sludge in the primary cell, and the construction and operation of a truck dumping facility. Effluent discharge requirements have not been changed from the facility's previous licence, except with respect to biochemical oxygen demand. The licence limit for this parameter has been changed from 30 mg/L to 25 mg/L in accordance with new national standards. As wastewater treatment lagoons typically produce treated effluent with much lower biochemical oxygen demand than this limit, this change is not expected to affect the operation of the facility.

If the Town wishes to explore an expansion of the facility in the future, we would encourage discussion between Town and Environmental Assessment and Licensing Branch staff concerning effluent retention time and nutrient limits. Both of these considerations would affect the design of an expanded facility.

In addition to the enclosed Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with.

For further information on the administration and application of the Licence, please feel free to contact Bruce Webb, Environmental Engineer, at (204) 945-7021 or bruce.webb@gov.mb.ca.

Yours truly,

Tracey Braun, M. Sc.
Director
Environment Act

Enc.

- c. Don Labossiere, Environmental Operations, Winnipeg
- Diane Oertel, Environmental Operations, Lac du Bonnet
- Kim Barlishen, Office of Drinking Water, Winnipeg

NOTE: Confirmation of Receipt of this Licence No. 1303 R (*by the Licencee only*) is required by the Director of Environmental Assessment and Licensing. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by Nov. 16, 2009.

On behalf of the Town of Beausejour

Date

LICENCE

Licence No. / Licence n° 1303 R

Issue Date / Date de délivrance August 30, 1989

Revised : November 2, 2009

In accordance with The Environment Act (C.C.S.M. c. E125) /
Conformément à la Loi sur l'environnement (C.P.L.M. c. E125)

Pursuant to Section 11(1) and 14(2) to/ Conformément au Paragraphe 10(1)

THIS LICENCE IS ISSUED TO: / CETTE LICENCE EST DONNÉE À:

THE TOWN OF BEAUSEJOUR; "the Licencee"

for the operation of the Development being a wastewater collection system and wastewater treatment lagoon system located in NE and NW 1-13-7 EPM and SE 12-13-7 EPM in the Rural Municipality of Brokenhead, with treated effluent to be discharged via the Bachman Drain to the Brokenhead River, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"**accredited laboratory**" means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation 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;

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

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

"**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" means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within five days at a temperature of 20°C;

"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;

"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;

"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;

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

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

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

"septage" means the sludge produced in individual on-site wastewater disposal systems such as septic tanks;

"sewage" means household and commercial wastewater that contains human waste;

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

"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 coliform" means a group of aerobic and facultative anaerobic, Gram-negative, nonspore-forming, rod-shaped bacteria, that ferment lactose with gas and acid formation within 48 hours at 35°C, and inhabit predominantly the intestines of man or animals, but are occasionally found elsewhere and include the sub-group of fecal coliform bacteria;

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

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

GENERAL TERMS AND CONDITIONS

This Section of the Licence contains requirements intended to provide guidance to the Licencee in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

1. In addition to any of the following specifications, limits, terms and conditions specified in this Licence, the Licencee shall, upon the request of the Director:
 - a) sample, monitor, analyze or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants, ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, and for such duration and at such frequencies as may be specified;
 - b) determine the environmental impact associated with the release of any pollutant from the Development; or
 - c) provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used, bioassay data, flow rate measurements and such other information as may from time to time be requested.
2. The Licencee shall submit all information required to be provided to the Director under this Licence, in writing, in such form (including number of copies) and of such content as may be required by the Director.
3. The Licencee shall direct all wastewater generated within the Town of Beausejour toward the wastewater treatment lagoon or other approved sewage treatment facilities.
4. The Licencee shall ensure that the operation of the Development is carried out by individuals properly trained or qualified to do so.
5. The Licencee shall operate and maintain the wastewater treatment lagoon and wastewater collection system in such a manner that the release of offensive odours is minimized.

6. The Licencee shall actively participate in any future watershed-based management study, plan and/or nutrient reduction program, approved by the Director, for the Brokenhead River and associated waterways.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Respecting Construction:

7. The Licencee shall maintain the wastewater treatment lagoon with a continuous liner under all interior surfaces of the cells 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 shall be constructed to an elevation of 2.5 metres above the floor elevation of both the primary and secondary cells.
8. The Licencee shall construct and maintain an all-weather access road to the wastewater treatment lagoon.
9. The Licencee shall construct a truck dumping station for truck hauled wastewater. The truck dumping facility shall have a surface splash ramp with a smooth hard surface that can be easily washed free of solids.
10. The Licencee shall install and maintain a fence around the wastewater treatment lagoon to limit access. The fence shall be a minimum of 1.2 metres high and have a locking gate, which shall be locked at all times except to allow access to the wastewater treatment lagoon.
11. The Licencee shall remove interior dykes between existing cells 1 and 2 and between existing cells 3 and 4 in accordance with Clause 7 of this Licence. Excavation shall not be undertaken below the floor elevation of the cells adjacent to the dykes to be removed.
12. The Licencee shall restore the design configurations of the interior dykes between existing cells 1 and 5 and between existing cells 4 and 5. Dyke sideslopes shall be restored with clay material and protected as necessary with riprap to prevent erosion due to wave action.
13. The Licencee shall:
 - a) prepare "as constructed drawings" for the Development and shall label the drawings "As Constructed"; and
 - b) provide to the Director, within six months of the completion of the interior dyke removal and restoration and the construction of the truck dumping station, two copies of the "as constructed drawings" of the wastewater treatment lagoon.

Respecting Operation:

14. The Licencee shall, during operation of the Development:
 - a) immediately report any reportable spills to Manitoba Conservation's Accident Reporting Line at (204) 944-4888; and
 - b) provide a follow-up report to the Director on a reportable environmental accident outlining the cause(s) and proposing corrective action to prevent reoccurrence.
15. The Licencee shall operate the wastewater treatment lagoon such that the wastewater load does not exceed the design capacities as follows:
 - a) 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; and
 - b) the depth of liquid in all primary cells does not exceed 1.5 metres.
16. The Licencee shall not discharge septage into the wastewater treatment lagoon between the 15th day of October of any year and the 1st day of June of the following year.
17. The Licencee shall not discharge effluent from the wastewater treatment lagoon:
 - a) where the organic content of the effluent, as indicated by the five-day biochemical oxygen demand, is in excess of 25 milligrams per litre;
 - b) where the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;
 - c) where the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample; and
 - d) between the 1st day of November of any year and the 15th day of May of the following year, and between the 15th day of June and the 15th day of September of any one year, unless prior approval by the Director is given.
18. The Licencee shall not discharge effluent from the wastewater treatment lagoon:
 - a) when flooding from any cause is occurring along the discharge route; and
 - b) when the discharge of effluent will cause or contribute to flooding in or along the discharge route.
19. The Licencee shall, in case of physical or mechanical breakdown of the wastewater collection and/or treatment system:
 - a) notify the Director immediately;
 - b) identify the repairs required to the wastewater collection and/or treatment system;
 - c) undertake all repairs to minimize unauthorized discharges of wastewater; and
 - d) complete the repairs in accordance with any written instructions of the Director.

Respecting Maintenance:

20. The Licencee shall, if in the opinion of the Director, significant erosion of the interior surfaces of the dykes occurs, repair the dykes and place riprap on the interior dyke surfaces from 0.6 metres above the high water mark to the bottom of the dykes to protect the dykes from wave action.

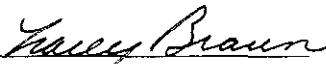
21. The Licencee shall provide and maintain a grass cover on the dykes of the wastewater treatment lagoon and shall regulate the growth of the vegetation so that the height of the vegetation does not exceed 0.3 metres on all dykes.
22. The Licencee shall annually remove by mechanical methods all reeds, rushes and trees located above the low water mark in every cell of the wastewater treatment lagoon.
23. The Licencee shall implement an ongoing program to ensure that burrowing animals are removed from the site of the wastewater treatment lagoon.
24. The Licencee shall carry out an annual maintenance program on all drains under its control which are used to transport effluent to the Bachman Drain.
25. The Licencee shall spread and level sludge adjacent to the forcemain outlet in the primary cell of the wastewater treatment lagoon within the primary cell.

MONITORING AND REPORTING SPECIFICATIONS

26. The Licencee shall, unless otherwise specified in this Licence:
 - a) carry out all preservations and analyses on liquid samples in accordance with the methods prescribed in the Standard Methods for the Examination of Water and Wastewater, or in accordance with equivalent preservation and analytical methodologies approved by the Director;
 - b) ensure that all analytical determinations are undertaken by an accredited laboratory; and
 - c) report the results to the Director, in writing and in an electronic format acceptable to the Director, within 60 days of the samples being taken.
27. The Licencee shall, prior to each effluent discharge campaign, obtain grab samples of the treated wastewater and have them analyzed for:
 - a) the organic content as indicated by the five day biochemical oxygen demand and expressed as milligrams per litre;
 - b) the fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample; and
 - c) the total coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample.
28. The Licencee shall:
 - a) during each year maintain records of:
 - i) wastewater sample dates;
 - ii) original copies of laboratory analytical results of the sampled wastewater; and
 - iii) effluent discharge dates;
 - b) make the records being maintained pursuant to sub-Clause 28 a) of this Licence available to an Environment Officer upon request; and
 - c) keep the maintained records of any one calendar year available for inspection for a period of three years following the respective calendar year in which they were recorded.

REVIEW AND REVOCATION

- A. Environment Act Licence No. 1303 is hereby rescinded.
- B. If, in the opinion of the Director, the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out in this Licence, the Director may, temporarily or permanently, revoke this Licence.
- C. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11 of The Environment Act.



Tracey Braun, M. Sc.
Director
Environment Act

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