

Environment Act Licence Loi sur l'environnement Licence

Manitoba
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Licence No./Licence n° 2265 R

Issue Date/Date de délivrance June 5, 1997

Revised: November 9, 2005

IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)
THIS LICENCE IS ISSUED PURSUANT TO SECTION 11(1) AND 14(2) TO:

CITY OF SELKIRK; "the Licencee"

for the upgrading and operation of the Development being a wastewater collection system, sludge storage ponds and a wastewater treatment plant including a truck dumping station, located on River Lots 14 and 15, Parish of St. Peters and with discharge of treated effluent into the Red River, in accordance with the letter of alteration filed under The Environment Act on October 29, 1996, the additional information dated February 5, 1997, and the notice of alteration submitted on September 2, 2005 and related reports 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;

"aeration basin" means a basin or tank in which wastewater is aerated and forms part of wastewater treatment plant;

"affected area" means a geographical area affected by an odour nuisance, excluding the property of the Development;

"allowable mixing zone" means an area adjacent to a discharge where a receiving water may not meet all the water quality objective and is consistent with the criteria set out in the latest edition of the Manitoba Surface Water Quality Objectives;

****A COPY OF THE LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES****

"appurtenances" means machinery, appliances, or auxiliary structures attached to a main structure to enable it to function, but not considered an integral part of it;

"approved" means approved by the Director in writing;

"as constructed drawings" means engineering drawings complete with all dimensions which indicate all features of the alterations to the Development as it has actually been built and record drawings from previous construction;

"calibrate" means to determine, check or rectify the graduation of any instrument giving quantitative measurement;

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

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

"Environment Officer" means an employee so appointed 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;

"flow proportional composite sample" means a combination of not less than ten individual samples of equal volumes of wastewater taken at equal increments of wastewater flow over a specified period of time;

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

"influent" means water, wastewater, or other liquid flowing into the wastewater treatment facility or any component of the facility;

"leachate" means liquid that has percolated through solid waste or other permeable material and that contains dissolved and suspended materials from it;

"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 the 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;

"precipitation runoff" means rain, snow melt water, or ice melt water;

"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;

"sludge solids" means solids in sludge;

"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;

"truck dumping station" means a facility used to receive, store and meter wastewater, including septage, which has been hauled to the wastewater treatment plant with a truck;

"UV disinfection" means a disinfection process for treating wastewater using ultraviolet radiation;

"UV disinfection facility" means the component of the development where the ultraviolet disinfection process occurs;

"UV dose" means the units of intensity of ultraviolet light that is required to kill bacteria and viruses present in the wastewater effluent;

"waste disposal ground" means an area of land designated by a person, municipality, provincial government agency, or crown corporation for the disposal of waste and approved for use in accordance with Manitoba Regulation 150/91;

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

"wastewater treatment plant" means the central facility of the wastewater treatment facilities, which contains all treatment processes exclusive of the wastewater collection systems;

"wet industry" means an industry that generates manufacturing or processing wastewater but does not include an industry that generates only cooling process wastewater.

GENERAL REQUIREMENTS

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 generations.

1. The Licencee shall direct all wastewater generated within the City of Selkirk toward the wastewater treatment plant or other approved wastewater treatment facilities.
2. 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.
3. The Licencee shall ensure that wastewater and septage are transported in enclosed containers in such a manner to prevent loss of wastewater and septage, to the satisfaction of an Environment Officer.
4. The Licencee shall ensure that all sludge solids are directed to the sludge storage ponds.
5. The Licencee shall, in an event where a physical or mechanical breakdown of the wastewater collection system or the wastewater treatment plant results in or may

- result in the discharge of raw or partly treated wastewater or in non-compliance with any specification, limit, term or condition of this Licence:
- a) notify the Director by facsimile or any other notification procedure approved by the Director, stating the nature of the event, the time and estimated duration of the event and the reason for the event as follows:
 - i) as soon as possible but no later than within 12 hours of the event; or
 - ii) before noon of the first business day following an event on a weekend or statutory holiday;
 - b) identify the repairs required to the wastewater collection system or the wastewater treatment plant; and
 - c) complete the repairs in accordance with any written instructions of the Director.
6. 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.
7. The Licencee shall, unless otherwise specified in this Licence:
- a) carry out all preservations and analysis on liquid samples in accordance with the methods prescribed in the most current edition of "Standard Methods for the Examination of Water and Wastewater" or in accordance with an equivalent analytical methodology approved by the Director;
 - b) ensure that all analytical determinations are undertaken by an accredited laboratory or a laboratory approved by the Director; and
 - c) report the results of all monitoring and testing to the Director, in writing and in an electronic format acceptable to the Director, within 60 days of the samples being taken.
8. The Licencee shall carry out, as deemed necessary by the Director, any remedial measures or modifications in respect to matters authorized under this Licence.
9. 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.
10. The Licencee shall actively participate in any future watershed based management study, plan or environmental research or monitoring programs approved by the Director, for the Red River, Lake Winnipeg and associated waterways and watersheds.
11. The Licencee shall not allow the discharge of any industrial wastewater from a wet industry into the wastewater collection system, after the date of issuance of this Licence, unless the wet industry discharging the wastewater has first entered into an industrial use agreement with the Licencee. These agreements shall specify the quality, quantity and timing of discharges into the wastewater collection system and shall require the industry to advise the Licencee of any changes to these parameters.

12. The Licencee shall:
- develop alternative leachate treatment plans for the Development;
 - submit an engineering report detailing the alternative leachate treatment facility plans, for approval of the Director, in written and electronic format, on or before January 1, 2007; and
 - complete the construction and commissioning of the alternative leachate treatment facility in accordance with the approval of the Director.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

13. The Licencee shall limit the influent loading on the wastewater treatment plant as follows:
- the hydraulic loading not to exceed 17,000 cubic metres over any 24 hour period; and
 - the organic loading not to exceed 1530 kilograms of five-day biochemical oxygen demand over any 24 hour period.
14. The Licencee shall ensure that adequate instrumentation is installed to provide constant monitoring of the UV disinfection treatment process to ensure compliance with the disinfection requirements. Such instrumentation shall include but not be limited to the following:
- a UV sensor to monitor lamp intensity;
 - an appropriate alarm and shutdown systems;
 - a lamp monitoring system to identify the location of individual lamp failures;
 - an hour meter which cannot be reset to display actual hours of UV lamp operation; and
 - protective circuits for overcurrent and ground current leakage detection.
15. The Licencee shall ensure that both aeration basins and final clarifiers, located in the wastewater treatment plant, are maintained in an operational condition.
16. The Licencee shall:
- construct and make available for use by an Environment Officer, a secured and heated effluent monitoring station on all discharge pipelines or channels and shall ensure that direct access is provided to the effluent pipelines or channels;
 - ensure that the monitoring stations are accessible to an Environment Officer at all times;
 - install and maintain a flow measuring device at the monitoring station or at a location acceptable to the Director which is capable of measuring the volume of effluent with an accuracy of ± 2 percent;
 - have the flow measuring device re-calibrated biannually or on the request of an Environment Officer; and
 - ensure that each monitoring station is equipped with a flow-proportional sampling device equipped to function with the flow measuring device and

have the sampling device available on request for use by an Environment Officer.

17. The Licencee shall not discharge effluent from the wastewater treatment plant:
- where the organic content of the effluent, as indicated by the five day biochemical oxygen demand, is in excess of 30 milligrams per litre;
 - where the total suspended solids content of the effluent is in excess of 30 milligrams per litre;
 - where the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample, as determined by the weekly geometric mean; and
 - where the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample, as determined by the weekly geometric mean.

MONITORING REQUIREMENTS

18. The Licencee shall:
- maintain a record of all wastewater hauled to the wastewater treatment plant, including the number of loads on a daily and weekly basis, the volume of each load, the name of the hauler, and the source of the contents of each load according to the type of waste and the name and location of each property serviced;
 - make all records available to an Environment Officer upon request; and
 - submit an annual report of all the waste hauling information to the Director within 30 days of the end of the 12 month period.
19. The Licencee shall:
- measure and record the volume of the wastewater influent at the wastewater treatment plant;
 - take one flow proportional sample of wastewater influent at the wastewater treatment plant over a 24 hour period during each week;
 - have the samples analyzed for five-day biochemical oxygen demand and total suspended solids;
 - calculate the five-day biochemical oxygen demand and total suspended solids loads (in kilograms per day) for the days during which samples were collected;
 - prepare a monthly report on:
 - the average and total monthly volume of wastewater influent at the wastewater treatment plant; and
 - the five-day biochemical oxygen demand and total suspended solids loads and the flow conditions on the days the sample were collected; and
 - report the results to the Director within 30 days of the end of the month during which the samples were taken.


20. The Licencee shall:

- a) take one flow proportional composite sample of effluent from the wastewater treatment plant over a 24 hour period during each week;
 - b) have the flow proportional composite sample analyzed for five day biochemical oxygen demand, ammonia, total phosphorous and total suspended solids; and
 - c) report the results to the Director within 30 days of the end of the month during which the samples were taken.
21. The Licencee shall:
- a) each week:
 - i) take 3 grab samples of the effluent from the wastewater treatment plant with a minimum separation time of 2 hours between taking each sample, during the day on which the flow proportional composite sample collected pursuant to Clause 20 of this Licence is collected;
 - ii) have each of the samples collected pursuant to subsection a)i) of this Clause analyzed for fecal coliform content and total coliform content; and
 - iii) determine and record the weekly geometric mean for each of the fecal coliform and total coliform counts based on all the data collected during each week; and
 - b) report the results to the Director within 30 days of the end of the month during which the samples were taken.
22. The Licencee shall:
- a) submit a plan, on or before December 31, 1998 for a phased wastewater collection system repair program to the Director for approval; and
 - b) implement the phased wastewater collection system repair program in accordance with the approval of the Director.
23. The Licencee shall:
- a) prepare "as constructed drawings" for the UV disinfection process and related changes to the wastewater treatment plant and shall label the drawings "As Constructed Drawings"; and
 - b) provide to the Director, on or before January 1, 2007, "as constructed drawings" of the Development.

REVIEW AND REVOCATION

- A. This Licence replaces Licence No. 2265 which 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.

- D. 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

Client File No.: 140.20

rescinded