

Environment Act Licence

Loi sur l'environnement Licence

Manitoba
Conservation
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Manitoba



Licence No./Licence n° 2558

Issue Date/Date de délivrance July 4, 2002

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

LORD SELKIRK SCHOOL DIVISION NO. 11; "the Licencee"

for the construction and operation of the Development being a package extended aeration wastewater treatment plant and effluent holding pond located on Parcel A of River Lot 74, Plan 9483 in the Parish of St. Clements in the Rural Municipality of St. Clements and in accordance with the Proposal filed under The Clean Environment Act on July 10, 1986, the Notice of Alteration filed under The Environment Act on May 3, 2002 and the additional information provided on June 20, 2002 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 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;

"**approved**" means approved by the Director 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;

"**composite sample**" means a quantity of wastewater consisting of a minimum of 10 equal volumes of effluent or flow proportional volumes collected at approximately equal time intervals over a period of not less than 6 hours and not exceeding 24 hours, and may be collected manually or by means of an automatic sampling device;

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

"**effluent**" means treated wastewater flowing or pumped out of the wastewater treatment plant or the effluent holding pond;

"**effluent holding pond**" means the component of the development which consists of an impoundment into which treated wastewater is discharged for storage;

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

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

"final discharge point" means the sampling location for the treated sewage effluent as approved by the Director;

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

"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 plant;

"MPN index" means the most probable number of coliform organisms in a given volume of wastewater as determined by statistical estimation;

"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, and 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;

"sewage" means human body, toilet, liquid, waterborne culinary, sink or laundry waste;

"sewage effluent" means sewage after it has undergone at least one form of physical or biological treatment;

"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, non-spore-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;

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

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

"wastewater treatment plant" means a plant where sewage is collected and treated.

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, handling, treatment and disposal systems, for such pollutants, ambient quality, aquatic toxicity, seepage characteristics and discharge rates and for such duration and 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, bioassay data, flow rate measurements and such other information as may from time to time be requested.
2. The Licencee shall, unless otherwise specified in this Licence:
 - a) carry out all preservations and analyses of 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; and
 - b) ensure that all analytical determinations are undertaken by an accredited laboratory.
3. 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.
4. The Licencee shall ensure that the wastewater treatment plant and the effluent holding pond are operated in such a manner that:
 - a) all the sewage generated within Happy Thought School is directed towards the wastewater treatment plant or other approved facility;
 - b) only sewage as defined in this Licence is discharged into the wastewater treatment plant; and

- c) waste solids and sewage sludge shall be disposed of in a waste disposal ground operated under a permit issued in accordance with Manitoba Regulation 150/91 or at a treatment facility approved by the Director.
5. 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 to mitigate an odour nuisance.
6. The Licencee shall construct and maintain an all-weather access road to the wastewater treatment plant and effluent holding pond.
7. The Licencee shall install and maintain a fence around the effluent holding pond to control access.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

8. The Licencee shall ensure that the sewage load on the wastewater treatment plant does not exceed the design capacities as follows:
 - a) hydraulic loading not to exceed 152 m³ for any 24-hour period; and
 - b) organic loading not to exceed 16.3 kilograms of five-day biochemical oxygen demand (BOD₅) per day.
9. The Licencee shall ensure that the UV lamps have a rated output of at least 253 nanometres (nm) capable of delivering a germicidal dose in excess of 30,000 microwatt seconds/sq cm.
10. The Licencee shall ensure that the UV units are sized to give a germicidal dose of 20,000 microwatt seconds/sq cm or more, at the end of lamp life.
11. The Licencee shall ensure that the organic loading on the storage pond as indicated by the five-day biochemical oxygen demand (BOD₅) is not in excess of 56 kilograms per hectare per day.
12. The Licencee shall not discharge effluent from the effluent holding pond where:
 - a) the organic content of the effluent, as indicated by the five-day biochemical oxygen demand (BOD₅), is in excess of 30 milligrams per litre;
 - b) the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample; or
 - c) the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample.
13. The Licencee shall ensure that there is no discharge of effluent from the effluent holding pond between the 1st day of November of any year and the 15th day of May of the following year.


MONITORING AND REPORTING SPECIFICATIONS

14. The Licencee shall provide a system, acceptable to the Director, to measure the sewage flows to the wastewater treatment plant.

15. The Licencee shall take samples of influent sewage before the sewage enters the wastewater treatment plant and of treated sewage effluent at the final discharge point.
16. The Licencee shall:
 - a) take one composite sample of effluent from the effluent holding pond prior to discharge;
 - b) have the composite effluent sample analyzed for five day biochemical oxygen demand;
 - c) take three grab samples of effluent from the effluent holding pond prior to discharge;
 - d) have the grab samples analyzed for fecal coliform content and total coliform content; and
 - e) report the results to the Director prior to discharge of the effluent holding pond.
17. The Licencee shall:
 - a) prepare "as constructed drawings" for the Development, and shall label the drawings "As Constructed"; and
 - b) provide to the Director, on or before October 1, 2003, "as constructed drawings" of the wastewater treatment plant and effluent holding pond.
18. The Licencee shall in case of physical or mechanical breakdown of the wastewater collection and/or treatment system, including the UV disinfection system:
 - a) notify the Director immediately;
 - b) identify the repairs required to the waste collection and/or treatment system; and
 - c) complete the repairs in accordance with the written instructions of the Director.

REVIEW AND REVOCATION

- A. This Licence replaces Licence No. 1112 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.
- 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.


Larry Strachan, P. Eng.
Director
Environment Act