

Licence No.: 2428

Licence Issued: November 1, 1999

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

THE RURAL MUNICIPALITY OF EAST ST. PAUL; "the Licencee"

for the expansion and operation of the Development being an existing wastewater treatment plant located on Parcels 1 and 2 on River Lots #100 and 101, Parish of St. Paul, Rural Municipality of East St. Paul and in accordance with the Proposal filed under The Environment Act on June 10, 1999, 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/equity control (QA/QC) procedures in place equivalent to accreditation based on the Canadian Standard Can/CSA-Z753, extension of the international standard ISO 9000, Guide 25;

"affected area" means a geographical area excluding the property of the development;

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

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

"composite sample" means a quantity of wastewater consisting of a minimum of 10 equal volumes of effluent, or flow proportional volumes collected over a 24-hour period, and may be collected manually or by means of an automatic sampling device;

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

"DPD method" means the diethyl-p-phenylenediamine colometric method of determining chlorine residuals in accordance with the Standard Methods for the Examination of Water and Wastewater;

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

"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;

"final discharge point" means the effluent monitoring facilities located at the outlet of the blower building stilling basin;

"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 sewage 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;
- 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 Pollution Control Federation; and

"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.

GENERAL SPECIFICATIONS

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 extension to this plant, is operated in such a manner that:
 - a. all the sewage generated within the existing and future plan for the Rural Municipality of East St. Paul is directed towards the Hoddinott Sewage Treatment Plant;
 - 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.
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 install, operate, and maintain an effluent discharge pipeline from the sewage treatment plant into the Red River, and shall take the necessary steps to prevent freezing of the effluent in the pipeline.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

7. 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 9,248 m³ for any 24-hour period; and
 - b. organic loading not to exceed 642 kilograms of five-day biochemical oxygen demand (BOD₅) per day.
8. The Licencee shall not discharge sewage effluent from the sewage treatment system 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 sewage effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample at the final discharge point as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week;
 - c. the total coliform content of the sewage effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample at the final discharge point as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week;
 - d. the suspended matter content of the sewage effluent, as indicated by the non-filterable residue is in excess of 25 milligrams per litre;
 - e. the maximum concentration of ammonia is in excess of the maximum allowable loading as outlined in Schedule 1 attached to this Licence; or
 - f. the total chlorine residual content is in excess of 0.5 mg/l at the final discharge point.

MONITORING AND REPORTING SPECIFICATIONS

9. The Licencee shall provide a system acceptable to the Director, to measure the sewage flows to the wastewater treatment plant, prior to operating the wastewater treatment plant.
10. The Licencee shall arrange for the taking of samples of influent sewage before the sewage enters the treatment plant and of the treated sewage effluent at locations that are accessible during all weather conditions.
11. The Director shall approve the sampling locations for the influent sewage and the treated sewage effluent.
12. The Licencee shall:
 - a. take one composite sample of effluent from the sewage treatment plant during the discharge period once each month;
 - b. have the composite effluent sample analyzed for five day biochemical oxygen demand, field temperatures, field pH, ammonia and total suspended solids, using methods from the Standard Methods for the Examination of Water and Wastewater, or using other methods approved by the Director;
 - c. have grab samples analyzed for fecal coliform content and total coliform content using methods from the Standard Methods for the Examination of Water and Wastewater, or using other methods approved by the Director, and
 - d. report the results to the Director within 60 days of the samples being taken.
13. The Licencee shall monitor the chlorination process of the said wastewater treatment plant on a daily basis, using the DPD method or equivalent, and shall submit the results to the Director on a monthly basis, on a form approved by the Director.
14. 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 November 1, 2000, "as constructed drawings" of the Phase VI expansion of the existing wastewater treatment plant.
15. 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 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. 2003, 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.

"original signed by"

Larry Strachan, P. Eng.
Director

Environment Act

Client File No.: 2911.20

Schedule 1

To Environment Act Licence No. 2428

Month	Maximum Allowable Concentration of Un-Ionized Ammonia in Wastewater Effluent (mg/L)
January	0.27
February	0.27
March	0.27
April	0.05
May	0.05
June	0.05
July	0.05
August	0.05
September	0.05
October	0.27
November	0.27
December	0.27