Licence No.: 2461

Licence Issued: June 30, 2000

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

#### WENDIGO TRAILER OWNERS ASSOCIATION; "the Licencee"

for the construction and operation of the Development being an extended aeration package wastewater treatment plant and collection system located on the northeast quarter of Section 17, Township 16, Range 12 EPM in the Rural Municipality of Lac du Bonnet and in accordance with the Proposal filed under The Environment Act on September 9, 1999, and the additional information dated December 21, 1999, and June 12, 2000, 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 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;
- "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;
- "bioassay" means a method of determining toxic effects of industrial wastes and other wastewaters by using viable organisms;
- "chlorine contact time" means the period of time between the addition of chlorine to the wastewater and dechlorination or final discharge of the effluent for the completion of the desired reaction;
- "collection system" means the system of sewer pipes used for collecting sewage within the property of the Development, the lift station and the sewer outflow from the wastewater treatment plant;
- "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;
- "dechlorination" means the partial or complete reduction of residual chlorine by any chemical or physical process;
- "Director" means an employee so designated pursuant to The Environment Act;
- "effluent" means treated wastewater flowing or pumped out of the wastewater 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 sampling location for the treated sewage effluent as approved by the Director;

"five-day biochemical oxygen demand" (BOD<sub>5</sub>) 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;

"lift station" means a structure, located within the property of the Development, that contains pumps and appurtenances, and other mechanical and electrical equipment for pumping wastewater;

"marsh" means the marshy area on the Winnipeg River shoreline as indicated in the drawing dated June 12, 2000 accompanying the Proposal;

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

"noise nuisance" means an unwanted sound, in an affected area, which is annoying, troublesome, 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 unwanted sound

- 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: 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 unwanted sound 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;

"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 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;

"operating season" means that part of each year during which the wastewater treatment plant operates and which does not begin before May 1st or extend past October 31st of any year;

"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:
- "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; and
- "wastewater treatment plant" means the plant, identified in the Proposal, 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, prior to the commencement of operation of the Development, receive approval pursuant to the Public Health Act for final plans for the Development.
- 5. The Licencee shall, at least two weeks prior to construction of the development, contact the Historic Resources Branch to make arrangements for Historic Resources staff to monitor excavations.

- 6. The Licencee shall operate the wastewater treatment plant in such a manner that:
  - a. all sewage generated within the Wendigo Trailer Owners Association property is directed towards the wastewater treatment plant or other approved sewage treatment facility;
  - b. only sewage is discharged into the wastewater treatment plant;
  - c. waste solids and sewage sludge are treated and disposed at a facility approved by the Director; and
  - d. measures are taken to prevent any upset in the biological treatment process due to any intermittent use of the plant.
- 7. The Licencee shall not cause or permit a noise 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 a noise nuisance.
- 8. 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.
- 9. The Licencee shall install, operate, and maintain a buried effluent discharge pipeline from the wastewater treatment plant to the marsh on the Winnipeg River shoreline, and shall take the necessary steps to prevent freezing of the effluent in the pipeline.
- 10. The Licencee shall:
  - a. install a gas chlorinator or a liquid chlorinator;
  - b. install adequate instrumentation to provide constant monitoring of the chlorination process to ensure compliance with the disinfection requirements;
  - c. ensure that there is no excess release of chlorine above the set dosage to the sewage effluent; and
  - d. if calcium hypochlorite powder or tablets are used:
    - i. dissolve the calcium hypochlorite in a separate mixing container;
    - ii. let the solution settle;
    - iii. decant the clear liquid into the chlorine solution tank; and
    - iv. dispose of the mixing container residue at a waste disposal ground.

# SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

- 11. The Licencee shall construct the effluent outfall such that:
  - a. the effluent outfall is placed at the edge of the marsh shoreline;
  - b. work is not conducted near the marsh shoreline from April 15 to June 15 of any year;
  - c. disturbance to the bed and shoreline of the marsh is minimized;
  - d. disturbed areas of the bank are stabilized using riprap or seeding with vegetation to prevent erosion and sedimentation;
  - e. all debris and temporary structures associated with placing of the effluent outfall pipe are removed upon completion of the work; and
  - f. re-fuelling and servicing of equipment takes place at least 100 metres from the water.
- 12. The Licencee shall ensure that the sewage load on the wastewater treatment plant does not exceed the design capacities as follows:
  - a. hydraulic loading of 65.5 m<sup>3</sup> for any 24-hour period; and
  - b. organic loading of 13.76 kilograms of five-day biochemical oxygen demand (BOD<sub>5</sub>) per day.
- 13. The Licencee shall design and operate the wastewater treatment plant such that there is a minimum chlorine

contact time of 15 minutes at peak flow.

- 14. The Licencee shall not discharge sewage effluent from the wastewater treatment plant, as sampled at the final discharge point, where:
  - a. the organic content of the effluent, as indicated by the five-day biochemical oxygen demand (BOD<sub>5</sub>), 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;
  - c. the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample;
  - d. the suspended matter content of the effluent, as indicated by the non-filterable residue is in excess of 30 milligrams per litre;
  - e. the maximum concentration of total chlorine in the effluent is in excess of 0.5 mg/L; or
  - f. the maximum concentration of total ammonia in the effluent is in excess of 1.0 mg/L.

### MONITORING AND REPORTING SPECIFICATIONS

- 15. 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.
- 16. The Licencee shall arrange for the taking of samples of:
  - a. influent sewage before the sewage enters the wastewater treatment plant, at a location that is accessible during all weather conditions; and
  - b. treated sewage effluent at a location that is accessible during all weather conditions.
- 17. The sampling locations for the influent sewage and the treated sewage effluent shall be approved by the Director.
- 18. The Licencee shall, during the operating season:
  - a. take one composite sample of effluent from the wastewater treatment plant during the discharge period once each month;
  - b. take three grab samples of effluent from the wastewater treatment plant during the discharge period once each month;
  - c. have the composite effluent sample analyzed for five day biochemical oxygen demand, field temperature, field pH, ammonia and total suspended solids;
  - d. have the grab samples analyzed for fecal coliform content and total coliform content; and
  - e. report the results to the Director within 60 days of the samples being taken.
- 19. The Licencee shall, prior to the first effluent discharge of each operating season:
  - a. take and have analyzed at least one set of treated wastewater samples as required by Clause 18 of this Licence;
  - b. ensure that the treated wastewater meets the effluent discharge requirements set out in Clause 14 of this Licence; and
  - c. notify the Director, in writing, of any actions taken to establish the biological treatment process.
- 20. The Licencee shall:
  - a. review the infiltration and extraneous flows in the collection system and identify any required remedial work;
  - b. on or before November 1, 2001, submit a report to the Director for approval, outlining the results of the review and a plan for the required remedial work; and

c. implement the plan in accordance with the approval of the Director.

#### 21. The Licencee shall:

- a. prepare "as constructed drawings" for the Development, including the wastewater treatment plant and the effluent discharge pipeline complete with final elevations, and label the drawings "As Constructed"; and
- b. on or before December 1, 2001, provide to the Director two sets of "As Constructed Drawings" of the Development.
- 22. The Licencee shall in case of physical or mechanical breakdown of the wastewater treatment plant and/or the collection system:
  - a. notify the Director immediately;
  - b. identify the repairs required to the wastewater treatment plant and/or the collection system; and
  - c. complete the repairs in accordance with the written instructions of the Director or take such steps as are necessary to ensure the repairs are carried out as required.
- 23. The Licencee shall, at all times, be responsible for taking all necessary steps to gain lawful entry to any land, structures or buildings for which its right of entry is or may be contested, for the purpose of the construction and operation of the wastewater treatment plant and collection system licensed herein. The issuance of this Licence should not be construed as conferring on the Licencee the right to use or otherwise enter any land, structures or buildings for the purposes of the wastewater treatment plant and collection system which is or may be the subject of a dispute with any other party.
- 24. The Licencee shall be responsible for taking such lawful steps as may be necessary to ensure all components of the collection system, including the lift station and main sewer lines are available for use at all times to facilitate the as designed operation of the wastewater treatment plant. If in the sole opinion of the Director, any component of the collection system is not reasonably available so as to facilitate the as designed operation of the wastewater treatment plant, the Director reserves the right to require the Licencee to make alternate arrangements for collection and disposal of sewage from the area serviced by the Development.

#### **REVIEW AND REVOCATION**

- A. 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.
- B. If the Licencee has not commenced construction of the Development within three years of the date of this Licence, the Licence is revoked.
- 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.: 4500.00**