

Licence No.: 2404 S2

Licence Issued: January 11, 2000

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)
THIS STAGE 2 LICENCE IS ISSUED PURSUANT TO SECTIONS 11(1) AND 13(1) TO:**

TOWN OF GILLAM; "the Licence"

for the upgrading of the Development being a sewage treatment plant and sludge dewatering facility located on the northwest quarter of Section 3, Township 85, Range 18 EPM, in accordance with the Proposal filed under The Environment Act on May 31, 1999, the additional information dated June 28, 1999 and November 24, 1999, 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 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;

"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 3 equal volumes of effluent collected at approximately equal time intervals over a sampling period of not less than 7 hours and not more than 24 consecutive hours, or at a rate proportional to flow, over a sampling period of not less than 7 consecutive hours and not more than 24 consecutive hours;

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

"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;

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

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

"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 Association;

"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;

"waste disposal ground" means an parcel of land that is used for the disposal of solid or industrial waste and is approved for use in accordance with Manitoba Regulation 150/91; and

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

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. The Licencee shall direct all wastewater generated within the Town of Gillam toward the sewage treatment plant or other approved sewage 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, 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.
3. 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;
 - b. ensure that all analytical determinations are undertaken by an accredited laboratory; 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.
4. The Licencee shall ensure that waste solids and sewage sludge shall be disposed of in a waste disposal ground.
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 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.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

7. The Licencee shall operate and maintain a continuous impermeable lining system for the sludge dewatering area equipped with a leachate collection pit, and shall ensure that all leachate from the dewatering area is returned to the influent line of the sewage treatment plant.
8. The Licencee shall ensure that the sewage load on the sewage treatment plant does not exceed the design capacities as follows:
- a. peak hydraulic load not to exceed 6,400 m³ for any 24-hour period;
 - b. 7-day average hydraulic load not to exceed 1,600 m³ per day;
 - c. 30-day average organic load not to exceed 80 kilograms of five-day biochemical oxygen demand (BOD₅) per day; and
 - d. 7-day average organic load not to exceed 352 kilograms of five-day biochemical oxygen demand (BOD₅) per day.
9. The Licencee shall:
- a. install and maintain a flow measuring device at a location acceptable to the Director which is capable of measuring the volume of influent with an accuracy of ± 2 percent; and
 - b. have the flow measuring device re-calibrated biannually or on the request of an Environment Officer.

10. The Licencee shall:
 - a. 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;
 - b. ensure that the monitoring stations are accessible to an Environment Officer at all times;
 - c. 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;
 - d. have the flow measuring device re-calibrated biannually or on the request of an Environment Officer; and
 - e. 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.
11. The Licencee shall not discharge effluent from the sewage treatment plant, as sampled at the effluent monitoring station, 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;
 - 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; and
 - d. the suspended matter content of the effluent, as indicated by the non-filterable residue is in excess of 30 milligrams per litre.
12. The Licencee shall:
 - a. take one composite sample of effluent from the sewage treatment plant during the discharge period once each month;
 - b. take three grab sample of effluent from the sewage treatment plant during the discharge period once each month;
 - c. have the composite effluent sample analyzed for five day biochemical oxygen demand and total suspended solids; and
 - d. have the grab samples analyzed for fecal coliform content and total coliform content.
13. The Licencee shall install and maintain a security fence around all components of the sewage treatment plant, including the sewage sludge dewatering area, that are not enclosed within secured buildings.
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 February 1, 2001, two sets of "as constructed drawings" of the sewage treatment plant.

REVIEW AND REVOCATION

- A. This Licence replaces Licence No. 500 and Licence No. 2404 S1, which are 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.: 151.10