

Licence No.: 2140 S2 RR

Licence Issued: April 16, 1997

Licence Revised: May 12, 1997 & September 7, 2000

IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)

THIS LICENCE IS ISSUED PURSUANT TO SECTION 11(1) TO:

RURAL MUNICIPALITY OF GIMLI; "the Licencee"
STAGE 2 LICENCE

for the upgrading and operation of the Development being a wastewater collection system and a sewage treatment plant, including a truck dumping station, located on the west half of Section 18, Township 19, Range 4 EPM in the Rural Municipality of Gimli and with discharge of treated effluent to a drainage ditch which flows into Lake Winnipeg, in accordance with the Proposal filed under The Environment Act on October 23, 1996 and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

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

"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;

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

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

"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;

"filter media" means material through which wastewater is passed for the purpose of treatment;

"five-day biochemical oxygen demand" means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within 5 days at a temperature of 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 a wastewater treatment facility;

"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;

"peak wet weather flow" means the maximum daily influent domestic wastewater flow to the sewage treatment plant during periods occurring on the same day as maximum precipitation runoff enters the domestic wastewater collection system;

"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;

"sewage treatment plant" means the component of this development which consists of the central facility of the wastewater treatment facilities which contain 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;

"sludge solids" means solids in sludge;

"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;

"trickling filter" means a very coarse filter which utilizes a film of aerobic microorganisms on the filter media to metabolize the organic material in the wastewater trickling downward to underdrains;

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

"underdrains" means a system of drains that carry away drainage from a bed of filter media to which wastewater has been applied; and

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

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 Manitobans.

1. The Licencee shall direct all sewage generated within the Gimli Industrial Park toward the sewage treatment plant or other approved sewage treatment facilities.
2. 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.
3. The Licencee shall limit the sewage load on the sewage treatment plant as follows:
 - a. the hydraulic loading not to exceed 1,480 cubic metres over any 24 hour period; and
 - b. the organic loading not to exceed 400 kilograms of five-day biochemical oxygen demand over any 24 hour period.

4. The Licencee shall, in case of physical or mechanical breakdown of the wastewater collection and/or the sewage treatment plant:
 - a. notify the Director immediately;
 - b. identify the repairs required to the wastewater collection and/or the sewage treatment plant; and
 - c. complete the repairs in accordance with any written instructions of 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 mitigate an odour nuisance.
6. The Licencee shall, unless otherwise specified in this Licence:
 - a. carry out all preservations and analyses on liquid samples in accordance with the methods prescribed in the most current 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, 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 to the Director, in writing and in an electronic format acceptable to the Director, within 60 days of the samples being taken.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

7. The Licencee shall ensure that mercury seals are not used in the sewage treatment plant.
8. The Licencee shall, over a two year period commencing on the date of commissioning the truck dumping station, undertake a study of the volume of truck hauled wastewater, including septage, and the related organic load associated with this wastewater. The Licencee shall prepare an annual report on this study complete with all the supporting information and shall submit it to the Director, within 60 days of each anniversary date of the commissioning of the truck dumping station, for the duration of the study.
9. The Licencee shall advise the Director of the date on which the truck dumping station was commissioned.
10. The Licencee shall, prior to the commissioning of the truck dumping station, undertake all necessary repairs to the trickling filter, including cleaning or replacing the filter media and repairing or replacing the underdrains, to ensure that the sewage treatment plant is capable of treating the sewage load as follows:
 - a. a hydraulic load of 1,480 cubic metres over any 24 hour period; and
 - b. an organic load of 400 kilograms of five-day biochemical oxygen demand over any 24 hour period.
11. 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 influent 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.

12. The Licencee shall, for a two year period commencing on the date of commissioning the truck dumping station:
 - a. measure and record the volume of the wastewater, including septage, discharged from the truck dumping station into the sewage treatment plant on a daily basis;
 - b. take one flow proportional sample of wastewater discharged from the truck dumping station over a 24 hour period during each alternate week;
 - c. have the samples analyzed for five day biochemical oxygen demand, chemical oxygen demand, and total suspended solids;
 - d. calculate the five day biochemical oxygen demand and total suspended solids loads (in kilograms per day) for the days during which samples were collected;
 - e. prepare a monthly report on:
 - i. the daily, average, peak, minimum and total monthly volume of wastewater discharged from the truck dumping station into the sewage treatment plant; and
 - ii. the five day biochemical oxygen demand, chemical oxygen demand and total suspended solids loads and the flow conditions on the days the sample were collected; and
 - f. file a copy of the report with the Director.
13. The Licencee shall, for a two year period commencing on the date of commissioning the truck dumping station:
 - a. measure and record the volume of the municipal wastewater discharged into the sewage treatment plant;
 - b. on the same day as the wastewater from the truck dumping station is sampled, take one flow proportional sample of municipal wastewater discharged into the sewage treatment plant over a 24 hour period during each alternate week;
 - c. have the samples analyzed for five day biochemical oxygen demand, chemical oxygen demand and total suspended solids;
 - d. calculate the five day biochemical oxygen demand, chemical oxygen demand and total suspended solids loads (in kilograms per day) for the days during which samples were collected;
 - e. prepare a monthly report on:
 - i. the daily, average, peak, minimum and total monthly volume of municipal wastewater discharged into the sewage treatment plant; and
 - ii. the five day biochemical oxygen demand, chemical oxygen demand and total suspended solids loads and the flow conditions on the days the sample were collected; and
 - f. file a copy of the report with the Director.
14. The Licencee shall, for a five year period commencing on the date of commissioning the truck dumping station:
 - a. take one flow proportional sample of effluent from the sewage treatment plant over a 24 hour period during each alternate week;
 - b. have the flow proportional sample analyzed for five day biochemical oxygen demand, ammonia, total suspended solids, and total residual chlorine content;
 - c. take 3 grab samples of the effluent from the sewage treatment plant with a minimum separation time of 2 hours between taking each sample, during the day on which the flow proportional sample collected pursuant to sub-section (a) of this Clause is collected;
 - d. have each of the samples collected pursuant to sub-section (c) of this Clause analyzed for fecal coliform content and total coliform content; and
 - e. report the results to the Director.
15. The Licencee shall, for a two year period commencing on the date of commissioning the truck dumping station,

submit an annual summary report of the hydraulic and organic loads to the sewage treatment plant and the effluent discharge from the sewage treatment plant, to the Director within 90 days of the end of each calendar year, that includes:

- a. the annual average flow from the truck dumping station;
- b. the annual average flow of the wastewater discharged into the sewage treatment plant, excluding flow from the truck dumping station;
- c. the annual peak wet weather flow of the wastewater discharged into the sewage treatment plant;
- d. the annual average flow of the effluent discharged from the sewage treatment plant;
- e. the five day biochemical oxygen demand and total suspended solids determined throughout the year, for each of the flow conditions listed in this Clause; and
- f. the total residual chlorine, total coliform content, fecal coliform content and ammonia determined throughout the year, for the flow conditions pursuant to sub-section (d) of this Clause.

16. The Licencee shall:

- a. submit a plan, on or before December 31, 1997 for a phased sewer repair program to the Director for approval; and
- b. implement the phased sewer repair program in accordance with the approval of the Director.

DISCHARGE LIMITS, TERMS AND CONDITIONS

17. The Licencee shall not discharge effluent from the sewage treatment plant:

- a. where the organic content of the effluent, as indicated by the five day biochemical oxygen demand, is in excess of 30 milligrams per litre;
- b. where the total suspended solids content of the effluent is in excess of 30 milligrams per litre;
- c. where the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;
- d. where the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample; or
- e. where the total residual chlorine content of the effluent is in excess of 1.0 milligrams per litre.

18. The Licencee shall ensure that sludge solids are disposed of in accordance with the requirements of Environment Act Licence 2473 issued to the Rural Municipality of Gimli on September 7, 2000.

19. The Licencee shall:

- a. prepare "as constructed drawings" for the Development and shall label the drawings "As Constructed Drawings"; and
- b. provide to the Director, on or before October 1, 1997, "as constructed drawings" of the Development.

REVIEW AND REVOCATION

- A. This Licence replaces Licence Nos. 2140 S1, 2140 S2 and 2140 S2 R, 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 the Licencee has not commenced construction of the Development within three years of the date of this Licence, the Licence is revoked.
- 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.

"original signed by"

Larry Strachan, P. Eng.

Director

Environment Act

Client File No.: 1086.10

RESCINDED