

Licence No.: 2287

Licence Issued: October 14, 1997

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

PINELAND FARMS LIMITED/PINEY HOLDING CO. LTD.;
"the Licencee"

for the construction and operation of the Development being a wastewater collection system and a sewage treatment plant and effluent holding pond located on the northwest quarter of Section 8, Township 1, Range 12 EPM and with disposal of treated effluent by irrigation on agricultural land owned by the Licencee, in accordance with the Proposal filed under The Environment Act on July 15, 1997, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"appurtenances" means machinery, appliances, or auxiliary structures attached to a main structure to enable it to function, but not considered an integral part of it;

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

"ASTM" means the American Society for Testing and Materials;

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

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

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

"fecal coliform" means aerobic and facultative, Gram-negative, nonspore-forming, rod-shaped bacteria capable of growth at 44.5 degrees Celsius, and associated with fecal matter of warm-blooded animals;

"five-day biochemical oxygen demand" means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within five days at a temperature of 20 degrees Celsius;

"flooding" means the flowing of water onto lands, other than waterways, due to the overtopping of a waterway or waterways;

"high water mark" means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is at the maximum allowable liquid level;

"influent" means water, wastewater, or other liquid flowing into a wastewater treatment facility;

"low water mark" means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is discharged;

"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;

"riprap" means small, broken stones or boulders placed compactly or irregularly on dykes or similar embankments

for protection of earth surfaces against wave action or current;

"**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 degrees Celsius, and inhabit predominantly the intestines of man or animals, but are occasionally found elsewhere and include the sub-group of fecal coliform bacteria; 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 sewage generated within the farmsite of the Pineland Colony toward the sewage treatment plant or other approved sewage treatment facilities.
2. 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 wastewater collection and/or treatment system;
 - c. undertake all repairs to minimize unauthorized discharges of wastewater; and
 - d. complete the repairs in accordance with any written instructions of the Director.
3. The Licencee shall install and maintain a fence around the effluent holding pond to control access.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

4. The Licencee shall:
 - a. take one composite sample of effluent from the sewage treatment plant during the discharge period once each month;
 - b. take one grab sample of effluent from the sewage treatment plant during the discharge period once each month;
 - c. have the composite effluent samples analyzed for five day biochemical oxygen demand and total chlorine; and
 - d. have the grab sample analyzed for fecal coliform content and total coliform content.
5. The Licencee shall:
 - a. during each year maintain records of:
 - i. wastewater sample dates;
 - ii. original copies of laboratory analytical results of the sampled wastewater; and

- iii. effluent discharge dates;
 - b. make the records being maintained pursuant to sub-Clause 5 (a) of this Licence available to an Environment Officer upon request; and
 - c. keep the maintained records of any one calendar year available for inspection for a period of three years following the respective calendar year in which they were recorded.
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 Pollution Control 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.
7. The Licencee shall ensure that if, in the opinion of the Director, significant erosion of the interior surfaces of the effluent holding pond occurs, rip rap shall be placed on the interior dyke surfaces from 0.6 metres above the high water mark to 0.6 metres below the low water mark to protect the dykes from wave action.
8. The Licencee shall provide and maintain a grass cover on the dykes of the effluent holding pond and shall regulate the growth of the vegetation so that the height of the vegetation does not exceed 0.3 metres on all dykes.
9. The Licencee shall not discharge effluent from the sewage treatment plant, as sampled near the point of discharge from the sewage treatment plant, where:
- a. the organic content of the effluent, as indicated by the five day biochemical oxygen demand, 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.
10. The Licencee shall provide a heated and secured effluent monitoring station acceptable to the Director and equipped with:
- a. a direct access way for an effluent sampling line to a location near the discharge from the sewage treatment plant; and
 - b. an electrical power source of 15 amperes at 110 volts.
11. The Licencee shall ensure that all effluent is disposed of by spray irrigation onto land owned by the Licencee and that:
- a. effluent is only discharged to irrigate:
 - i. actively growing cereal, forage or oil seed crops between the 15th day of May and the 1st day of October of any year;
 - ii. grasslands which will not be utilized for grazing:
 - A. by dairy cattle for at least 30 days after effluent is applied; or
 - B. by livestock other than dairy cattle for at least 7 days after effluent is applied;
 - b. after agriculture crops are irrigated, harvesting of the crops does not take place for at least 7 days;
 - c. if corn has been grown, it is used solely for making silage;
 - d. for at least 10 continuous hours in every 24-hour period, no effluent is applied to the particular lands; and
 - e. if ponding or surface runoff occurs during application the gross depth of effluent applied during any application of effluent shall be reduced so that ponding or surface runoff does not occur.

12. The Licencee shall not discharge effluent, by spray irrigation:
 - a. within 300 metres of any dwelling not owned or lawfully controlled by the Licencee;
 - b. within 100 metres of any surface watercourse or groundwater well; or
 - c. within 100 metres of any adjoining property boundary.
13. The Licencee shall not place the sewage treatment plant into operation before the effluent holding pond has been constructed.
14. The Licencee shall advise the Director of the commissioning date of the sewage treatment plant and the effluent holding pond.
15. The Licencee shall, within 3 months of commissioning the sewage treatment plant and effluent holding pond:
 - a. prepare "as constructed drawings" for the Development and shall label the drawings "As Constructed"; and
 - b. provide to the Director two sets of "as constructed drawings" of the wastewater treatment lagoon.
16. The Licencee shall ensure that the sludge solids are disposed in a manner approved by the Director.

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.: 4266.00