In accordance with the Manitoba Environment Act (C.C.S.M. c. E125) (REVISED: JANUARY 3, 1991)

THIS LICENCE IS ISSUED TO:

70488 MANITOBA LTD.; APPLICANT
(ROSEBANK COLONY SITE)

The following limits, terms, and conditions shall be complied with in connection with the construction and operation of a wastewater collection system and a wastewater treatment lagoon located on NW 1/4 Section 22-5-6 WPM and with discharge of treated effluent onto agricultural land located on NE 1/4 Section 22-5-6 WPM:

1. The Applicant shall ensure that all sewage generated within the farm site is directed toward the wastewater treatment lagoon.

2. The Applicant shall ensure that no livestock waste is directed toward the wastewater treatment lagoon.

3. The Applicant shall not discharge effluent from the wastewater treatment lagoon:
   (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 fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;
   (c) where the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample;
   (d) between the first day of October of any year and the 15th day of May of the following year, unless prior approval, by the Director, is given.

4. The Applicant shall not discharge effluent from the primary cell of the wastewater treatment lagoon, except to the secondary cell of the said lagoon.

.../2
5. The Applicant shall operate and maintain the wastewater treatment lagoon in such a manner that:

(a) the release of offensive odours is minimized;

(b) the organic loading on the primary cell of the lagoon system, as indicated by the five day biochemical oxygen demand, is not in excess of 56 kilograms per hectare per day;

(c) the depth of sewage in the primary cell does not exceed 1.5 metres.

6. The Applicant shall discharge effluent from the wastewater treatment lagoon only onto lands owned by the Applicant.

7. The Applicant shall not discharge effluent:

(a) within 300 metres of any dwelling not owned or lawfully controlled by the Applicant;

(b) within 60 metres of any surface watercourse or groundwater well; and,

(c) within 20 metres of any property boundary.

8. The Applicant shall carry out the irrigation with effluent in such a manner that:

(a) effluent is only discharged to irrigate:

   (i) stubble fields, or worked stubble fields in the fall after the growing season has ended; or,

   (ii) cultivated summerfallow fields; or,

   (iii) grasslands which will not be utilized for hay, grazing or similar use during or for at least:

   A. 30 days prior to grazing by dairy cattle;

   B. 7 days prior to grazing by livestock other than dairy cattle; or,
(iv) **agricultural crops where:**

A. irrigation does not take place during or for at least 7 days prior to harvesting of the crops;

B. forage crops, cereals grain or oil seed crops are grown on effluent irrigated lands provided that where corn is grown it is used solely for silage.

(b) if surface ponding or surface runoff occurs during irrigation the gross depth of effluent applied during any application of effluent shall be reduced;

(c) during 10 continuous hours in every 24-hour period, no application of effluent takes place.

9. The Applicant 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) complete the repairs in accordance with the written instructions of the Director.

10. The Applicant shall prior to the construction of dykes for the wastewater treatment lagoon:

(a) remove all organic topsoil from the area where the dykes will be constructed; or,

(b) remove all organic material for a depth of 0.3 metres and a width of 3.0 metres from the area where the dyke will be built, providing all the lagoon dykes are lined with clay or other suitable material as required by Clause 11 to a minimum thickness of one metre.

11. The Applicant shall construct the wastewater treatment lagoon with clay or other suitable material such that all interior surfaces of the lagoon structure are underlain with a minimum of 1 metre of soil having a hydraulic conductivity of $1 \times 10^{-7}$ centimetres per second or less.
12. The Applicant shall arrange with the designated Environment Officer a mutually acceptable time and date for any required soil sampling between the 15th day of May and the 1st day of November of any year, unless prior approval, by the Director, is given.

13. The Applicant shall either:

(a) subject undisturbed soil samples from the completed wastewater treatment lagoon to hydraulic conductivity tests, the number and location of said samples to be specified by the designated Environment Officer up to maximum of twenty samples; or,

(b) where undisturbed soil samples cannot be taken, test the soil of 4 plane surfaces of the wastewater treatment lagoon for hydraulic conductivity by an insitu field test method as prescribed by the designated Environment Officer.

14. The Applicant shall, not less than 2 weeks before the wastewater treatment lagoon is placed in operation, submit to the Director the results of the tests carried out pursuant to Clause 13.

15. The Applicant shall install a fence around the sewage lagoon facility to limit access.
Dear Mr. Matview,

Re: 70488 Manitoba Ltd. - Rosebank Colony Lagoon

In response to your letter of December 20, 1991 in which you indicated an alteration to the design and construction of the wastewater treatment lagoon, the proposal has been reviewed pursuant to Section 14 of The Environment Act. It has been determined the alteration is of a minor nature and that a change in Environment Act Licence 1326 will be required, as follows:

"10 The Applicant shall prior to the construction of dykes for the wastewater treatment lagoon:

(b) remove all organic material for a depth of 0.3 metres and a width of 3.0 metres from the area where the dyke will be built, providing all the lagoon dykes are lined with clay or other suitable material as required by Clause 11 to a minimum thickness of one metre. "
Approval of the alteration is granted subject to the Applicant complying with Clause 10 of the revised Licence and the following conditions:

1. The Applicant shall arrange with the designated Environment Officer a mutually acceptable time and date for the required soil sampling.

2. The Applicant shall take undisturbed soil samples, at locations and elevations selected by the designated Environment Officer, within the clay core using a suitable drilling rig. The number of samples are to be specified by the designated Environment Officer, up to a maximum of twenty samples.

3. The Applicant shall provide the Director with "as-constructed" drawings of the wastewater treatment lagoon on or before May 1, 1991.

If you have any questions on this matter please contact Mike Van Den Bosch at 945-7015.

Yours truly,

[Signature]

Larry Strachan, P. Eng.
A/Director
Environmental Approvals Branch

Attachments

cc: Public Registries
bc: [Redacted]