



Conservation

Environmental Stewardship Division
Environmental Assessment and Licensing Branch
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File: 5256.00

October 1, 2009

Paul Waldner
Can-Am Properties Ltd.
Box 9
Margaret, MB R0K 1J0

Dear Mr. Waldner:

Re: Can-Am Properties Ltd. – Sewage Treatment Plant – Requested Amendment to Environment Act Licence No. 2857

The Environmental Assessment and Licensing Branch has reviewed the requested amendment to Environment Act Licence No. 2857 (the Licence) described in the September 28, 2009 Burns Maendel Consulting Engineers Ltd. letter regarding Can-Am Properties Ltd.'s sewage treatment plant.

The requested amendment of the Licence is to remove Clause 13 that originally required the installation and maintenance of a layer of washed 20 – 24 mm stone overlying a permeable geotextile throughout the area containing the chambers of the distribution laterals and the specified sand ASTM C33 bed lining of the engineered disposal field. These design features were not included with the proposed engineered design.

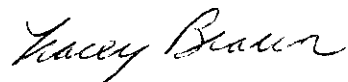
Upon review of the letter and related file, it was determined that the environmental effects as would result from the requested revision will be insignificant. Design features such as these have not typically been required for disposal fields of this type. Therefore, pursuant to Section 14(2) of The Environment Act, I hereby approve the implementation of the requested revision to the Licence as described in the September 28, 2009 letter.

The requested revision to the Licence has been made. Attached is Environment Act Licence No. 2857 R.

It is noted that Clause 22 of Environment Act Licence No. 2857 R (previously Clause 23 of the Licence) requires that an engineered groundwater monitoring plan relating to the engineered disposal field be submitted to the Director for approval. That plan has not been received, is overdue, and is required now by not later than October 30, 2009.

If you have any questions please contact Rob Boswick, Environmental Engineer at 945-6030.

Yours truly,



Tracey Braun, M.Sc.
Director
Environmental Assessment and Licensing Branch

Attachment

- c. Daniel A. Burns, P.Eng., Senior Engineer, Burns Maendel Consulting Engineers Ltd.
Luke Peloquin, Director – Western Region, Manitoba Conservation
Peter Crocker, Environment Officer, Manitoba Conservation

LICENCE

Licence No. / Licence n° 2857 R

Issue Date / Date de délivrance November 21, 2008

Revised: October 1, 2009

In accordance with The Environment Act (C.C.S.M. c. E125)
Conformément à la Loi sur l'environnement (C.P.L.M. c. E125)

Pursuant to Sections 11(1) and 14(2)/ Conformément au Paragraphe 11(1) et 14(2)

THIS LICENCE IS ISSUED TO: / CETTE LICENCE EST DONNÉE À:

CAN-AM PROPERTIES LTD. "the Licensee"

for the construction and operation of the Development being a wastewater collection system and a fixed activated sludge treatment sewage treatment plant located on SW 28-5-18WPM in the Rural Municipality of Riverside for the CanAm Colony and with discharge to an engineered disposal field located on NW 28-5-18WPM, in accordance with the Proposal filed pursuant to The Environment Act on February 15, 2007, and subsequent information submitted on June 4, 2007 and August 8, 2008 and the request for amendment dated September 28, 2009 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 international standard ISO/IEC 17025, or otherwise approved by the Director;

"affected area" means a geographical area excluding the property of the development;

"approved" means approved by the Director in writing;

"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;

"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 equal volumes of effluent, or flow proportional volumes, and may be collected manually or by means of an automatic sampling device;

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

"disposal field" means a system of wastewater effluent chambers laid in a shallow excavation or trenches and covered with top soil for the treatment and disposal of wastewater effluent;

"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;

"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;

"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;

"piezometer" means an instrument for measuring pressure head in a conduit, tank, or soil;

"septage" means the sludge produced in individual on-site wastewater disposal systems such as septic tanks;

"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;

"sludge solids" means solids in sludge;

"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;

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

"wastewater effluent" means wastewater after it has undergone at least one form of physical, chemical or biological treatment.

GENERAL SPECIFICATIONS

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;
 - b) have analytical determinations undertaken by an accredited laboratory; and
 - c) report the results to the Director, in writing, within 60 days of the samples being taken.

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 operate the sewage treatment plant in such a manner that:
 - a) all wastewater generated at the CanAm Colony farmsite is directed toward the sewage treatment plant or other approved sewage treatment facilities;
 - b) only wastewater as defined in this Licence is discharged into the sewage treatment plant;
 - c) sludge solids are disposed in a waste disposal ground operated under:

- i) a permit issued in accordance with *Manitoba Regulation 150/91* or any future amendment thereof; or
 - ii) the authority of a Licence issued under The Environment Act; and
 - d) sludge solids are transported in containers in such a manner to prevent loss of solids to the satisfaction of an Environment Officer.
5. The Licencee shall install, operate and maintain an effluent discharge pipeline from the sewage treatment plant to the engineered effluent disposal field such that freezing of the effluent in the pipeline is prevented.
6. The Licencee shall install, operate and maintain the engineered effluent disposal field such that:
- a) effluent is discharged through the disposal field with no surface breakout; and
 - b) freezing of the effluent in the disposal field is prevented.
7. The Licencee shall not spill, or allow to be spilled, wastewater and/or sludge in the area around the sewage treatment plant.
8. The Licencee shall have the construction and operation of the Development carried out by individuals properly trained and qualified to do so.
9. 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.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

10. The Licencee shall notify the assigned Environment Officer prior to beginning construction of the sewage treatment plant and disposal field. The notification shall include the intended starting date of construction and the name of the Licencee's contact person at the construction site.
11. The Licencee shall not cover the equalization tank, the sewage treatment plant or the engineered disposal field, in a manner that obscures them from view or interferes with inspection of the tank, plant or field, without authorization from the assigned Environment Officer.
12. The Licencee shall complete any open cut trenching across surface drainage courses only when there is no flow in the surface drainage courses.
13. The Licencee shall operate and maintain the sewage treatment plant in such a manner that:
- a) the maximum daily flow rate is not in excess of 18.0 cubic metres over any 24-hour period;

- b) the organic loading is not in excess of 4.5 kilograms of five-day biochemical oxygen demand over any 24-hour period; and
 - c) the release of offensive odours is minimized.
14. The Licencee shall locate fuel storage and equipment servicing areas established for the construction of the Development a minimum distance of 100 metres from any waterbody, and shall comply with the requirements of *Manitoba Regulation 188/2001* respecting Storage and Handling of Gasoline and Associated Products.
15. The Licencee shall install and maintain a security fence around all components of the sewage treatment plant that are not buried or enclosed within secured buildings.
16. The Licencee shall not discharge effluent from the sewage treatment plant, as sampled at the effluent monitoring station located at the lift station located after the sewage treatment plant, 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; and
 - b) the total suspended solids content of the effluent, as indicated by the non-filterable residue is in excess of 30 milligrams per litre.
17. The Licencee shall not discharge effluent from the sewage treatment plant except to the engineered disposal field.

MONITORING AND REPORTING SPECIFICATIONS

18. The Licencee shall monitor, and make the records of such monitoring available to the Director as may be requested, the sewage treatment process for the following parameters:
- a) total flow rate(s) into and through the sewage treatment plant; and
 - b) other process parameters approved or required by the Director.
19. The Licencee shall:
- a) take three grab samples of effluent, at the effluent monitoring station located at the lift station located after the sewage treatment plant during the discharge period, four times each year and with a minimum of 90 days between sampling events; and
 - b) have the grab samples analyzed at an accredited laboratory, using methods from the Standard Methods for the Examination of Water and Wastewater, or using other methods approved by the Director, for:
 - i) the organic content as indicated by the five day biochemical oxygen demand and expressed as milligrams per litre;
 - ii) total suspended solids as indicated by the non-filterable residue and expressed as milligrams per litre;

- iii) ammonia nitrogen content (as N) expressed as milligrams per litre;
and
 - iv) nitrate-nitrite nitrogen content expressed as milligrams per litre.

- 20. The Licencee shall, for a period of at least two years following the commencement of operation of the sewage treatment plant under this Licence, once every three months of any year and with a minimum separation time of 90 days between sampling events, obtain samples of treated effluent at the effluent monitoring station located at the lift station located after the sewage treatment plant. The samples shall be preserved, analyzed and reported in accordance with the requirements of Clause 2 of this Licence, and shall be analyzed for:
 - a) fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
 - b) total coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
 - c) total Kjeldahl nitrogen;
 - d) total phosphorus;
 - e) pH; and
 - f) temperature.

- 21. The Licencee shall report the results from the sampling required by Clauses 19 and 20 of this Licence to the Director in accordance with the requirements of Clause 2 c) of this Licence.


- 22. The Licencee shall, within six months of the date of this Licence, submit to the Director for approval, an engineered groundwater monitoring plan relating to the engineered disposal field that:
 - a) includes the installation and maintenance of piezometers to be installed around the engineered disposal field to monitor groundwater characteristics in the soils underlying the field; and
 - b) identifies:
 - i) how often and which groundwater characteristics will be monitored;
 - ii) who will monitor and report the groundwater characteristics;
 - iii) when groundwater monitoring will commence; and,
 - iv) strategies designed to allow the engineered disposal field to remain in compliance with this Licence, related regulations, and the Manitoba Water Quality Standards, Objectives, and Guidelines.

- 23. The Licencee shall, in case of physical or mechanical breakdown of the Development:
 - a) notify the Director immediately;
 - b) identify the repairs required to the wastewater collection system, sewage treatment plant, and/or engineered disposal field; and
 - c) complete the repairs in accordance with the written instructions of the Director.

24. The Licencee shall:
- a) prepare "as constructed drawings" for the Development, including the effluent discharge pipeline, complete with final elevations, and shall label the drawings "as constructed"; and
 - b) provide to the Director, on or before November 30, 2009, two sets of "as constructed drawings" of the Development.

REVIEW AND REVOCATION

- A. Environment Act Licence No. 2857 is 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 two 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.



Tracey Braun, M. Sc.
Director
Environment Act

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