Licence No.: 2295
Licence Issued: November 4, 1997

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

CAMP MANITOU INC; "the Licencee"

for upgrading and operation of the Development being an existing extended aeration package wastewater treatment plant located on lots 87 and 88 Parish of St. Charles in the Rural Municipality of Headingley, and in accordance with the Proposal filed under The Environment Act on September 16, 1997, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

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

"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 a minimum of 10 equal volumes of effluent collected at approximately equal time intervals;

"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 degrees Celsius, and associated with fecal matter of warm-blooded animals;

"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;

"five-day biochemical oxygen demand" (BOD_5) means that part of oxygen usually associated with biochemical oxidation of organic material within 5 days at a temperature of 20 degrees Celsius;

"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 the affected area;
b. working in the affected area; or
c. present at a location in the 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 in a form satisfactory to the Director from 5 different persons falling within clauses (a), (b) or (c), who are unrelated and who do not live in the same household, received by the Director within a 90 day period; 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 effluent" means sewage after it has undergone at least one form of physical, or biological treatment;

"sludge" means accumulated solid material containing large amounts of entrained water which has separated from wastewater during processing; and

"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 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.

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. 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; or
    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 carry out all preservations and analyses of all liquid samples in accordance with the methods prescribed in 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 Pollution Control Federation, or in accordance with equivalent preservation and analytical methodologies approved by the Director.

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 ensure that the wastewater treatment plant is operated in such manner that:
    a. all sewage generated within Camp Manitou is directed towards the treatment plant;
    b. only sewage is discharged into the wastewater treatment plant;
    c. waste solids and sewage sludge are treated and disposed at a facility approved by the Director; and
    d. measures are taken to prevent any upset in the biological treatment process due to any intermittent use of the plant.

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 install, operate, and maintain an effluent discharge pipeline from the sewage treatment plant into the Assiniboine River so that effluent is discharged a minimum of 20 metres from the nearest shoreline. The Licencee shall take the necessary steps to prevent freezing of the effluent in the pipeline.

7. The Licencee shall ensure that adequate instrumentation is installed to provide constant monitoring of the chlorination process to ensure compliance with the disinfection requirements and there is no excess release of chlorine above the set dosage to the effluent .

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

8. The Licencee shall ensure that the sewage load on the wastewater treatment plant does not exceed the design capacities as follows:
    a. hydraulic loading not to exceed 20,911 litres per day (20.91 cubic metres per day) peak flow condition; and
    b. organic loading not to exceed 8.18 kilograms of five-day biochemical oxygen demand (BOD_5) per day.

9. The Licencee shall not discharge sewage effluent from the sewage treatment plant, where:
    a. the organic content of the effluent, as indicated by the five-day biochemical oxygen demand (BOD_5), 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;
    d. the suspended matter content of the sewage effluent, as indicated by the non-filterable residue is in excess of 20 milligrams per litre;
    e. the sewage effluent will cause the total chlorine residual content in the receiving stream (Assiniboine River to be greater than 11 ug/L; and
    f. the maximum concentration of un-ionized ammonia in the effluent does not exceed the limits as indicated in Schedule 1 attached to this Licence.

MONITORING AND REPORTING SPECIFICATIONS

10. The Licencee shall provide a system acceptable to the Director, to measure the sewage flows to the wastewater treatment plant, prior to operating the wastewater treatment plant.

11. The Licencee shall arrange for the taking of samples of influent sewage before the sewage enters the treatment plant, at a location that is accessible during all weather conditions, and of the treated sewage effluent at a location that is accessible during all weather conditions.

12. 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 chlorination chamber; and
    b. an electrical power source of 15 amperes at 110 volts.

13. The sampling locations for the influent sewage, and the treated sewage effluent shall be approved by the Director.

14. The Licencee shall, during the three month period following the commissioning of the chlorine disinfection system:
    a. take grab samples of the effluent from the sewage treatment plant during the discharge period once each

week;
   b. have the grab samples analyzed for total suspended solids, fecal coliform content and total coliform content using methods from the latest edition of Standard Methods for the Examination of Water and Wastewater, or using other methods approved by the Director; and
   c. report the results to the Director within 60 days of the samples being taken.

15. 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 sample analyzed for five day biochemical oxygen demand, field temperatures, field pH, ammonia and total suspended solids;
   d. have the grab sample analyzed for fecal coliform content and total coliform content; and
   e. report the results to the Director within 60 days of the samples being taken.

16. The Licencee shall:
   a. prepare "as constructed drawings" for the Development, including the sewage treatment facility and the effluent discharge pipeline complete with final elevations, and shall label the drawings "As Constructed";
   b. prepare a schematic diagram of the treatment process for the development, and shall label the diagram as "Schematic Diagram"; and
   c. provide to the Director, on or before July 17, 1998, two sets of "As Constructed Drawings" and "Schematic Diagram" of the Development.

17. 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.

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.: 4104.00

Schedule 1

To Environmental Act Licence No. 2295

Maximum Concentrations of Un-ionized Ammonia in Assiniboine River

Camp Manitou Sewage Effluent

Months	Maximum Estimated Flow (cu.m/day)	Maximum Concentration of Un-ionized Ammonia (mg/L)
January	2	0.008
February	2	0.008
March	2	0.008
April	2	0.012
May	4.5	0.035
June	9.1	0.07
July	21	0.06
August	21	0.09
September	9.1	0.06
October	4.5	0.036
November	2	0.020
December	2	0.012