

Sustainable Development

Environmental Stewardship Division Environmental Approvals Branch 1007 Century Street, Winnipeg Manitoba R3H 0W4 T 204 945-8321 F 204-945-5229 www.gov.mb.ca/sd/eal

File No.: 4114.10 Environment Act Licence No.: 2308 RRR

August 2, 2018

Ms. Lynda Braccio, Director Operations Middlechurch Home of Winnipeg 280 Balderstone Road West St. Paul, MB R4A 4A6

Dear Lynda Braccio:

#### Re: Cancellation of Environment Act Licence No. 2308 RRR

This letter is in follow up to the letter dated May 30, 2018 sent to you by Don Labossiere, Director, Environmental Compliance and Enforcement Branch, Manitoba Sustainable Development.

Environment Act Licence No. 2308 RRR was issued to Middlechurch Home of Winnipeg for the construction and operation of the Development being a package wastewater treatment plant (WWTP) located at 280 Balderstone Road on River Lot 13 in the Rural Municipality of West St. Paul.

By the May 30, 2018 letter, the submitted decommissioning report for the Middlechurch Home of Winnipeg was accepted by the Department.

This letter is to formally notify you that Environment Act Licence No. 2308 RRR has been cancelled. In addition, Client File Number 4114.10 has been closed.

If you need any clarification regarding the foregoing, please feel free to contact Asit Dey, Environmental Engineer at (204) 945-2614 or at <u>asit.dey@gov.mb.ca</u>.

Yours sincerely. Siobhan Burland Ross, M.Eng., P.Eng.

A/Director

c: Don Labossiere/Scott Davies/Yvonne Hawryliuk/Nada Suresh, Environmental Compliance and Enforcement Public Registries Licence No.: 2308 RRR Licence Issued: February 16, 1998 Revised: March 25, 1998 Revised: September 13, 1999 Revised: February 27, 2003

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

### MIDDLECHURCH HOME OF WINNIPEG; "the Licencee"

for the construction and operation of the Development being a package wastewater treatment plant located at 280 Balderstone Road on River Lot 13 in the Rural Municipality of West St. Paul, and in accordance with the Proposal filed under The Environment Act on September 29, 1997, 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 (W-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 with:

"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;

"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;

"flowable material" means a material which is self-leveling and flows into and readily fills a void without the need for conventional placing and compacting equipment;

"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<sub>5</sub>) means that part of oxygen usually associated with biochemical oxidation of organic material within 5 days at 20°C;

"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 a least 5 written complaints received within a 90 day period from 5 different persons who do not live in the same household;

"sampling location" means a location approved by the Director for taking samples of sewage effluent;

"SBR" means Sequencing Batch Reactor consisting of an existing open tank;

"sewage" means human body, toilet, liquid, waterborne alizary, sink or laundry waste;

"sewage effluent" means sewage after it has undergone a 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;

"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;

"UV" disinfection means a disinfection process for treating wastewater using ultraviolet radiation; and

"**UV dose**" means the units of intensity of ultra violet light that is required to kill bacteria and viruses present in the sewage effluent.

## **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; and
  - b. ensure that all analytical determinations are undertaken by an accredited laboratory.
- 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 non-red by the Director.
- 4. The Licencee shall ensure that the wastewater treatment plant is open ted in such a manner that:
  - a. all the sewage generated by Middlechurch Home of Winniec, is directed towards the Development;
  - b. only sewage is discharged into the Development; a
  - c. waste solids and sewage sludge are treated and disposed at a facility approved by the Director.
- 5. The Licencee shall not cause or permit an odear huisance 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 ensure that effluent's discharged into the Red River through the existing discharge outfall.
- 7. The Licencee shall ensure that adequate instrumentation is installed to provide constant monitoring of the UV process to ensure compliance with the disinfection requirements. Such instrumentation shall include but not be limited to the following:
  - a. an UV sensor to monitor lamp intensity;
  - b. an appropriate alarm and shutdown systems;
  - c. a lamp monitoring system to identify the location of individual lamp failures;
  - d. an hour meter which cannot be reset to display actual hours of UV lamp operation; and
  - e. protective circuits for overcurrent and ground current leakage detection.

## SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

- 8. The Licencee shall ensure that the sewage load on the Development does not exceed the design capacities as follows:
  - a. peak hydraulic loading not to exceed 240,000 litres per day; and
  - b. peak organic loading not to exceed 57.6 kilograms of five-day biochemical oxygen demand (BOD<sub>5</sub>) per day.
- 9. The Licencee shall ensure that the UV lamps have a rated output of at least 253 nanometers (nm) capable of delivering a UV dose in excess of 30,000 microwatt seconds/sq cm.

- 10. The Licencee shall not discharge sewage effluent from the Development, where:
  - a. the organic content of the effluent, as indicated by the five-day biochemical oxygen demand (BOD<sub>5</sub>), 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 at the approved sampling location, as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week;
  - 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 at the approved sampling location, as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week;
  - d. the suspended matter content of the sewage effluent, as indicated by the non-filterable residue is in excess of 30 milligrams per litre; or
  - e. the maximum concentration of total ammonia is in accordance with the loadings indicated in Schedule 1 attached to this Licence.

# MONITORING AND REPORTING SPECIFICATIONS

- 11. The Licencee shall provide a system acceptable to the Director, to measure to sewage flows to the Development, prior to operating the Development.
- 12. The Licencee shall arrange for the taking of samples of the treated sewage effluent at a location that is accessible during all weather conditions.
- 13. The Licencee shall provide a heated and secured caluert monitoring station acceptable to the Director and equipped with:
  - a. a direct access way for an effluent sampling life to a location near the discharge from the UV disinfection chamber; and
  - b. an electrical power source of 1. at 110 volts.
- 14. The Licencee shall:
  - a. take one composite ample or effluent from the Development during the discharge period once each month;
  - b. have the composite encoded sample analyzed for five day biochemical oxygen demand, field temperatures, field pH, ammonia and total suspended solids; and
  - c. ensure that all analytical determinations are undertaken by an accredited laboratory.
- 15. The Licencee shall, during the three month period following the commissioning of the UV disinfection system:
  - a. take grab samples of the effluent from the Development during the discharge period once each week;
  - b. have the grab samples analyzed for total suspended solids, fecal coliform content and total coliform content; and
  - c. ensure that all analytical determinations are undertaken by an accredited laboratory.
- 16. The Licencee shall report all the information requested through the provisions of this Licence to the Director, within 60 days of the samples being taken.
- 17. 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"; and

- b. provide to the Director, on or before May 30, 1998, two sets of "As Constructed Drawings" of the Development.
- 18. 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.

### **DECOMMISSIONING**

- 19. The Licencee, shall, after placing the Development into operation, decommission the existing pre-treatment system and SBR tank in accordance with the decommissioning terms stated in the Letter dated January 13, 1998 from Cochrane Engineering Ltd. to the Director, Environmental Approvals, with the exception that the Licencee shall:
  - a. prevent any additional wastewater or septage from being discharge linto the existing pre-treatment system consisting of an underground concrete tank and lift station, and into the existing SBR tank at Middlechurch Home, allocated at 280 Balderstone Road on Fiver Lot 13 in the Rural Municipality of West St. Paul, Manitoba;
  - b. rinse and remove all residuals from the pre-treatment system and the SBR tank and dispose of the contents at a treatment facility approved by the Director;
  - c. disconnect all electric supply lines and pipelines to be pre-treatment system and SBR tank;
  - d. remove and transport all pumps, electric supply lines, pipelines, electrical systems, collection and distribution lines and appurtenances related to the prostreatment system and SBR system from the site at 280 Balderstone Road, to a designated area or bulky metallic waste in a waste disposal ground operated under a permit issued in accordance with Manitoba Regulation 150/91; and
  - e. fill the pre-treatment tank and the SPR tank with on site concrete rubble and flowable fill.

# **REVIEW AND REVOCATION**

- A. This Licence replaces Licence No 2708 R which is 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.: 4114.10

#### Schedule 1

Months	Wastewater Treatment Plant Total Ammonia Loading In Wastewater Effluent (Kg/d as N)
January	2.40
February	2.40
March	2.40
April	2.40
May	1
June	1
July	1
August	1
September	1
October	2.40
November	2.40
December	2.4
5	

### To Environment Act Licence No. 2308 RRR