

Environmental Stewardship Division  
Environmental Approvals Branch  
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[www.gov.mb.ca/conservation/eal](http://www.gov.mb.ca/conservation/eal)

**CLIENT FILE NO.: 4412.00**

June 16, 2017

Mr. Stephen McCabe  
MidCanada Environmental Services  
1090 Kenaston Boulevard  
Winnipeg MB R3P 0R7

Dear Mr. McCabe:

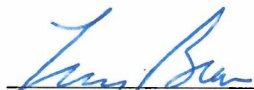
Enclosed is **revised Environment Act Licence No. 2482 RR** issued to **MidCanada Environmental Services** for the operation of the Development being a Class 1 Waste Disposal Ground located on subdivision 4 of Section 32 – Township 8 – Range 4 EPM in the Rural Municipality of Ritchot, in accordance with the Proposal filed under The Environment Act.

In addition to the enclosed Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with. A Notice of Alteration must be filed with the Director for approval prior to any alteration to the Development as licensed.

For further information on the administration and application of the Licence, please feel free to contact Yvonne Hawryliuk, Environment Officer at 204-945-5305.

Pursuant to Section 27 of The Environment Act, this licensing decision may be appealed by any person who is affected by the issuance of this Licence to the Minister of Sustainable Development within 30 days of the date of the Licence.

Yours truly,



**Tracey Braun, M.Sc.**  
**Director**  
**Environment Act**

c: D. Labossiere, D. Smiley, Y. Hawryliuk, Environmental Compliance and Enforcement  
Dave Edigar, D. Edigar Consulting Services; Mitch Duval, CAO, RM Ritchot  
Public Registries

**NOTE:** Confirmation of Receipt of this Licence No. 2482 RR (*by the Licencee only*) is required by the Director of Environmental Approvals. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by June 30, 2017

\_\_\_\_\_  
On behalf of the RM of Ritchot

\_\_\_\_\_  
Date

**\*\*A COPY OF THE LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES\*\***

Licence No. / Licence n°	<u>2482 RR</u>
Issue Date / Date de délivrance	<u>October 2, 2000</u>
Revised:	<u>January 15, 2001</u>
Revised:	<u>June 16, 2017</u>

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 Section 11(1) / Conformément au Paragraphe 11(1)

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

**THE RURAL MUNICIPALITY OF RITCHOT;**  
**"the Licencee"**

for the operation of the Development being a Class 1 Waste Disposal Ground located on subdivision 4 of Section 32 – Township 8 – Range 4 EPM in the Rural Municipality of Ritchot, in accordance with the Proposal filed under The Environment Act on January 22, 1999 and additional information as identified under Project Scope within this Licence; and subject to the following specifications, limits, terms and conditions:

**DEFINITIONS**

In this Licence,

"**access roads**" means a road that leads from a Provincial Trunk Highway, Provincial Road, or a municipal road;

"**accredited laboratory**" means an analytical facility accredited by the Standards Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Sustainable Development to be equivalent to the SCC, or be 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;

"**active area**" means an area of a landfill that is currently being used for the deposit of solid waste;

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

**"alternative cover"** means materials approved by the Director for use in temporarily covering waste in an active area;

**"approved"** means approved by the Director or assigned Environment Officer in writing;

**"baseline water quality"** means the quality of water in any geologic zone monitored with regards to the chemical and microbiological parameters specified in a Licence issued pursuant to The Environment Act by the Director;

**"cell"** means an area of a landfill in which solid waste has been, or is to be, deposited;

**"CFIA"** means Canadian Food Inspection Agency;

**"Closure Plan"** means a plan indicating the actions to be taken for the closure of the Development, or a portion of the Development;

**"compliance boundary"** means the planar surface that circumscribes the Development, extends vertically downward from the land surface, and constitutes the place at which the parameters of the baseline water quality as specified in a Licence issued pursuant to The Environment Act are not to be exceeded;

**"component"** means a landfill cell, pad or structure that forms a part of a process or system within an activity area of the Development;

**"concentration value"** means a restriction established by a Licence issued pursuant to The Environment Act by the Director on quantities, discharge rates and concentrations of pollutants;

**"cover material"** means inorganic soil, free of refuse, trash and vegetation, or other materials as approved by the Director, that is used to cover compacted solid waste;

**"daily"** means any 24-hour period;

**"dangerous goods"** means a product, substance or organism as defined in The Dangerous Goods Handling and Transportation Act, or any amendments thereto;

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

**"engineer(s)"** means an engineer or engineers registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba;

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

**"final cover"** means earth compacted to a thickness of at least 0.5 metres applied to the surface of the compacted waste cell that has achieved the final elevation for cell closure, and is graded to minimize ponding of water on the surface;

**"groundwater"** means water below the ground surface and within a zone of saturation;

**"hazardous waste"** means a product, substance or organism as defined in The Dangerous Goods Handling and Transportation Act, or any amendments thereto;

**"hydraulic conductivity"** means the quantity of water that will flow through a unit cross-sectional area of a porous material per unit of time under a hydraulic gradient of 1.0;

**"industrial waste"** means waste product generated by industry other than hazardous waste and liquid industrial waste;

**"landfill"** means waste disposal ground;

**"leachate"** means liquid that has percolated through solid waste, and that contains dissolved and/or suspended materials from the solid waste;

**"liner"** means a continuous layer of reworked soil, or manufactured materials, placed beneath and on the sides of a waste disposal ground cell or a storage area intended to restrict the downward or lateral escape of solid waste, leachate, and or gases, or to restrict the upward movement of groundwater into an area;

**"liquid waste"** means waste that has a slump of more than 150 mm using the Canadian Standards Association Slump Test Method A23.2-5C;

**"monitoring point"** means any installation or location used to determine the quality or physical characteristics of groundwater, surface water, or water in the unsaturated zone;

**"noise nuisance"** means an unwanted sound, in an affected area, which is annoying, troublesome, 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 unwanted sound

- 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, 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 unwanted sound 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;

**"notify"** means notify in writing;

**"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, 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;

**"operator"** means company or person who is responsible for the day-to-day maintenance and operation of the Development;

**"particulate matter"** means any finely divided liquid or solid matter other than water droplets;

**"pollutant"** means a pollutant as defined in The Environment Act;

**"Post Closure Plan"** means a plan indicating the actions to be taken for the care, maintenance, and monitoring of the Development after closure, that will prevent, mitigate, or minimize the threat to public health and the environment;

"**QA/QC**" means quality assurance/quality control;

"**qualified professional**" means an individual properly trained and authorized to practice in a specific area or field which may include assessment, design, or providing consultation for an aspect of the Development; to include but not be limited to Professional Engineers, Geoscientists or Landscape Architects;

"**radioactivity**" means the spontaneous decay or disintegration of an unstable atomic nucleus, accompanied by the emissions of radiation;

"**site**" means the area both permanent and temporary which is required for the construction and operation of the Development;

"**solid waste**" as defined in Manitoba Regulation 37/2016, or any future amendment thereto, respecting waste disposal grounds;

"**special waste**" means bagged asbestos containing materials, dead animals including specified risk materials (SRM), slaughterhouse waste and food products deemed to be unacceptable by the Canadian Food Inspection Agency (CFIA), biosolids, and any other waste identified by the Director;

"**SRM**" means specified risk materials;

"**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 Water Works Association and the Water Environment Federation;

"**top soil**" means soil that is free of roots, vegetation, weeds and stones larger than 50 mm, is capable of supporting good vegetative growth, and is suitable for use in top dressing, landscaping and seeding;

"**waste disposal ground**" means a parcel of land that is used for the disposal of solid or industrial waste, also referred to as a landfill;

"**water storage area**" means an area constructed in a manner approved by the Director to retain storm water runoff, for a limited time, for the purpose of chemical and bacterial analysis prior to disposal in a manner approved by the Director; and

"**water table**" means the upper surface of the zone of saturation at which point the fluid pressure is equal to the atmosphere.

## **PROJECT SCOPE**

Supporting documents and additional information for the Development, filed in accordance with The Environment Act include:

- a) Environmental Impact Assessment dated March 2, 2000;
- b) the Revised Phase I – Site Characterization report dated March 2, 2000;
- c) Phase II – Conceptual Design/Construction, Performance Monitoring and Closure report dated March 3, 2000;
- d) the Detailed Design – Construction, Operation and Closure report dated July 21, 2000;
- e) the R.M. of Ritchot W.D.G. plans dated August, 2000;
- f) the Special Provisions report dated August 17, 2000;
- g) the Addendum to Detail Design letter dated September 12, 2000;
- h) the Notice of Alteration of December 23, 2015; and
- i) the Notice of Alteration of November 15, 2016.

## **GENERAL TERMS AND CONDITIONS**

This Section of the Licence contains terms and conditions 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.

### **General Terms**

1. The Licencee shall operate the Development in compliance with the provisions of Manitoba Regulation 37/2016 respecting Waste Management Facilities, or any future amendment thereof.
2. The Licencee shall provide to an Environment Officer access throughout the duration of construction, operation and decommissioning of the Development to facilitate inspection.

### **Reporting Format**

3. The Licencee shall submit all information required to be provided to the Director or Environment Officer under this Licence, in written and electronic format, in such form (including number of copies) and of such content as may be required by the Director or Environment Officer, and each submission shall be clearly labeled with the Licence Number and File Number associated with this Licence.
4. The Licencee shall carry out any remedial measures, modifications, or alterations, as deemed necessary by the Director, in respect to matters authorized under this Licence.

### **Future Sampling**

5. In addition to any of the limits, terms and conditions specified in this Licence, the Licencee shall, upon the request of the Director:
  - a) sample, monitor, analyze and/or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants or ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, for such duration and at such frequencies as may be specified;
  - b) determine the environmental impact associated with the release of any pollutants from the Development; or
  - c) provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used, bioassay data, flow rate measurements and such other information as may from time to time be requested.

### **Sampling Methods**

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 or in accordance with equivalent preservation and analytical methodologies approved by the Director;
  - b) carry out all sampling of, and preservation and analyses on soil and air samples in accordance with methodologies approved by the Director;
  - c) have all analytical determinations undertaken by an accredited laboratory; and
  - d) report the results to the Director, in writing and in an electronic format acceptable to the Director, within sixty (60) days of the samples being taken, or within another timeframe as specified by the Director.
7. The Licencee shall, unless otherwise specified in this Licence carry out all sampling of groundwater, surface water, leachate, soil, and air in accordance with methodologies specified in the Operations Manual submitted pursuant to this Licence.

### **Equipment Operation**

8. The Licencee shall, in the case of physical or mechanical equipment breakdown or process upset where such breakdown or process upset results or may result in the release of a pollutant in an amount or concentration, or at a level or rate of release, that causes or may cause a significant adverse effect, immediately report the event by calling the 24-hour environmental accident reporting line at 204-944-4888 (toll-free 1-855-944-4888). The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event.



9. The Licencee shall, following the reporting of an event pursuant to Clause 8,
  - a) identify the repairs required to the mechanical equipment;
  - b) undertake all repairs to minimize unauthorized discharges of a pollutant;
  - c) complete the repairs in accordance with any written instructions of the Director; and
  - d) submit a report to the Director about the causes of breakdown and measures taken, within thirty (30) days of the repairs being completed.
10. The Licencee shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the Development, at all times.

### **Fire Reporting**

11. The Licencee shall in the event of a fire which continues in excess of thirty (30) minutes, or requires implementation of the Emergency Response Plan, or requires fire suppression assistance from personnel outside of the Development (e.g., fire department) report the fire by calling the 24-hour environmental accident reporting line at 204-944-4888 (toll free 1-855-944-4888), identifying the type of materials involved and the location of the fire.

### **Approvals and Permits**

12. The Licencee shall locate fuel storage and equipment servicing areas established for the construction and operation of the Development in compliance with the requirements of Manitoba Regulation 188/2001 respecting Storage and Handling of Petroleum Products and Allied Products or any future amendments thereof.
13. The Licencee shall obtain approval in writing from the Director for any proposed alteration to the Development before proceeding with the alteration.

## **SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS**

### **Odours and Air Emissions**

14. 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.
15. The Licencee, upon written request of and in a timeframe stipulated by the Director, shall comply with any air emission or ambient air quality criteria specified by the Director for any pollutant of concern to the Director which has been identified pursuant to Clause 5.

16. The Licencee shall take action to minimize the entrainment of particulate matter into the air at the Development resulting from the operation of vehicles or the transportation, storage or handling of wastes or other materials.

### **Noise**

17. The Licencee shall not cause or permit a noise 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 a noise nuisance.

### **Responsible Party**

18. The Licencee shall assign an engineer(s) or a qualified person(s) to be responsible for the construction of the Development and any required remediation action in accordance with the plans, specifications and design report(s) submitted in support of the proposal or this Licence.
19. The Licencee shall designate an employee, within sixty (60) days of the date of issuance of this Licence, as the Licencee's Environmental Coordinator, whose job description will include assisting the Licencee in complying with the limits, terms and conditions in this Licence and assisting Senior Management of the Licencee to manage environmental issues at the Development. The name of the Environmental Coordinator shall be submitted in writing to the Director within fourteen (14) days of appointment and any subsequent appointment.

### **Operations Manual**

20. The Licencee shall update within six (6) months of the date of issuance of this Licence, the Operations Manual which is to include information regarding all aspects of the Development, to include but not be limited to:
  - a) operational parameters and objectives, including method of tracking placement of special wastes and those wastes requiring unusual management considerations;
  - b) waste acceptance parameters and limitations;
  - c) incident tracking and reporting parameters;
  - d) dust and litter control procedures;
  - e) vector control procedures;
  - f) methodologies and processes for all sampling (groundwater, surface water, leachate, soil and air);
  - g) leachate management, including transfer from landfill cells to leachate ponds, monitoring and sampling schedule;
  - h) surface and groundwater management, monitoring and sampling schedule;
  - i) identification of operational records to be maintained; and
  - j) an overview of staffing qualifications and positions.

21. The Licencee shall implement the Operations Manual developed pursuant to Clause 20 of this Licence, and subject to any terms and conditions set by the Director.

### **Transportation Routes**

22. The Licencee shall post at least one sign along the primary access road to the disposal site indicating the location of the site and the hours of operation.
23. The Licencee shall require that commercial vehicles transporting wastes to the Development access the Development by means of a transportation route(s) approved by the Director.
24. The Licencee shall require that commercial vehicles transporting waste to the Development are covered to prevent the spread of litter on transportation routes and the surrounding areas.

### **Signage and Staffing**

25. The Licencee shall post adequate signage at the entrance to the Development indicating, but not limited to the following:
  - a) the types of wastes accepted at the site;
  - b) the hours and days of operation; and
  - c) 24-hour telephone numbers to be called in the event of an emergency occurring at the site.
26. The Licencee shall staff and secure the Development so that:
  - a) an attendant is on duty at the scale at all times during hours of acceptance of materials to the Development from the public or contractors not employed by the Owner;
  - b) gates are provided for all access locations to the site;
  - c) the gates are kept locked when the attendants are not on duty or the Development is closed; and
  - d) other attendants to direct traffic and operate heavy equipment are on duty as necessary.

### **Materials Handling**

27. The Licencee shall deposit all waste, other than material intended for recycling, or processing, in an active area within the Development.
28. At the request of an Environment Officer; the Licencee shall position fencing, including adequate portable litter fences around the active area or other locations where unloading or handling of materials occur, to prevent litter or other material from collecting on or escaping from the boundaries of the Development.

29. The Licencee is responsible for litter clean up along access roads, facility fencing and adjacent properties.
30. The Licencee shall not accept the following wastes at the Development:
  - a) hazardous waste;
  - b) biomedical waste;
  - c) liquid waste;
  - d) radioactive waste or materials;
  - e) outdated drugs or cytotoxic waste;
  - f) explosives;
  - g) unbagged asbestos;
  - h) PCB's or PCB contaminated materials, excluding soils and sediments; or
  - i) soils or sediments containing contaminants in excess of the criteria specified for industrial occupancy in the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines (latest edition), and the CCME Canada Wide Standards.
31. Notwithstanding Clause 30 of this Licence, household hazardous waste collected or received by the Licencee, shall be allowed in designated areas at the Development in accordance with The Dangerous Goods Handling and Transportation Act and any Licence issued pursuant to the Act or regulations.
32. The Licencee may receive wastes prohibited in Clause 30 of this Licence if appropriate provisions have been provided in a proposal which has been submitted and approved by the Director.

### **Radiation Detection**

33. The Licencee shall provide a plan for the approval of the Director for the installation of instruments capable of detecting radioactivity and notifying the site attendant(s) of such detection.
34. The Licencee shall:
  - a) install instruments as approved pursuant to Clause 33 of this Licence;
  - b) maintain the instruments with certification or calibration as required by the manufacturers recommendations; and
  - c) not accept wastes with detectable radioactivity at the Development.

### **Special Wastes**

35. The Licencee shall not excavate in areas where special wastes have been previously buried without approval from an Environment Officer.
36. The Licencee shall keep record, by Global Positioning System (GPS), of the locations of buried special wastes.

**Site Preparation and Landscaping**

37. The Licencee shall, prior to any new construction of any component of the Development, remove all top soil to a minimum depth of 150 mm and store this top soil at a suitable location for future use.
38. The Licencee shall maintain the proposed landscaping and planting of trees and shrubs at the Development as indicated in the Detailed Design report dated July 21, 2000 submitted in support of the Proposal or other landscaping plan approved by the Director.

**WEIGH SCALES**

39. The Licencee shall maintain federal certification of the weigh scales utilized at the entrance of the Development.

**MATERIAL STORAGE AREAS**

**Operation – Material Storage Areas**

40. The Licencee shall operate any and all material storage areas in a manner to prevent windblown waste, litter, odour generation, fire and other hazards, as well as preventing spills from contaminated runoff.
41. The Licencee shall remove ozone depleting substances from appliances using a certified contractor in accordance with Manitoba Regulation 103/94, or any future amendment thereof, respecting Ozone Depleting Substances and Other Halocarbons.

**LINERS AND CLAY COMPONENTS**

42. The Licencee 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 15th day of October of any year, unless otherwise approved by the Environment Officer.

43. The Licencee shall take and test undisturbed soil samples, in accordance with Appendix 'B' attached to this Licence, from:
  - a) the clay of any new waste disposal cell(s);
  - b) leachate ponds; and
  - c) any clay component of the Development requiring testing by the Director.
44. The Licencee may isolate a portion of a new waste disposal cell for sampling in accordance with Clause 43. Contingent upon the tested portion remaining isolated from any other non-tested portion, the Licencee may utilize the cell based upon the written approval of the tested area, subject to terms and conditions set by the Director.

### **LANDFILL CELLS**

#### **Construction – Landfill Cells**

45. The Licencee shall, unless otherwise required by this Licence or the Director, construct the Development in accordance with the R.M. of Ritchot W.D.G. plans dated August 2000 and the report entitled Special Provisions dated August 17, 2000, submitted in support of the Proposal and the redesigned layout dated November 15, 2016.
46. The Licencee shall submit to the Director, at least sixty (60) days prior to construction, the engineering design plans, sealed by an engineer(s) which address, but are not limited to the following:
  - a) engineering design with respect to construction of the waste disposal cell(s) base and sides;
  - b) engineering design with respect to the construction of the leachate collection system in each new cell, and connections, if applicable, to the overall leachate management system;
  - c) location of access road(s) to the waste disposal cell(s);
  - d) details of the location of the waste disposal cell(s) with respect to property lines; and
  - e) details of a drainage system to prevent water from entering the waste disposal cell(s) and to channel the surface run-off into the surface water system for the Development.
47. The Licencee shall construct new waste disposal cell(s) in accordance with the design plans submitted pursuant to Clause 46 of this Licence, subject to terms and conditions set by the Director.
48. The Licencee shall construct any waste disposal cell as follows:
  - a) the clay liner is recompacted to a minimum thickness of 1 metre for the side slopes and 1.0 metres for the base of the waste cell; and

- b) the in-place recompacted hydraulic conductivity of the clay liner on the side slopes and base of the waste cell is  $1 \times 10^{-7}$  cm/second or lower.

### **Operation – Landfill Cells**

- 49. The Licencee shall minimize the working face of any active area to reduce the generation of litter and leachate from the Development.
- 50. The Licencee shall compact waste deposited in the active area and cover the waste daily with cover material or alternative cover or at a frequency approved by the Director.
- 51. The Licencee, upon a written request to an Environment Officer, may, during extreme weather conditions, utilize temporary covering of wastes deposited in an active area. Such temporary covering material shall be replaced with permanent cover material when the extreme weather conditions cease; unless otherwise specified by an Environment Officer.
- 52. The Licencee shall not place or utilize soils or material with contamination of F2 Petroleum Hydrocarbons in excess of 1000 mg/kg at a location within the landfill cell that does not provide at minimum 1.0 metre depth of cover (waste or other material) in addition to the depth of the final cap (0.5 metre minimum); i.e. placement of contaminated material is greater than 1.5 metres from any eco-soil contact.

### **Burning**

- 53. The Licencee shall not burn materials or waste at the Development.

### **LEACHATE**

- 54. The Licencee shall design and operate the Development as follows:
  - a) the hydraulic capacity of the perforated leachate collection pipes can readily accommodate the expected quantity of leachate;
  - b) leachate that enters the pipe can readily flow within the pipes;
  - c) blockage of the perforations of the leachate collection pipes by sedimentation is minimized;
  - d) the leachate collection pipes have adequate structural integrity to withstand impacts from waste placement and other site operations; and
  - e) the leachate system is inspected annually.
- 55. The Licencee shall collect and manage all liquids collected in drain sumps or the leachate collection system at the Development in a manner approved by the Director, or at an alternative off-site licenced facility approved by the Director.

56. The Licencee shall not recirculate leachate or water collected at the Development through the landfill cells.
57. The Licencee shall report any occurrence of leachate breakout which leaves the Development to an Environment Officer within twenty four (24) hours.

### **GROUNDWATER**

58. The Licencee shall sample, store and analyze monitoring point samples using approved field and laboratory techniques for dissolved analysis. The analytical results shall be retained in a format acceptable to the Director.
59. The Licencee shall sample the groundwater monitoring points for those parameters identified in Appendix 'A' once per year; or at a frequency as approved by the Director.
60. As a result of the operation of the Development, the Licencee shall not cause the concentration values of the parameters listed in Appendix 'A', attached to this Licence, to exceed baseline levels in groundwater at the compliance boundary.

### **EROSION AND STABILITY**

61. The Licencee shall construct and maintain the final side slopes of the above ground deposit of waste, including final cover, in the waste cell in accordance with the December 23, 2015 submission and supporting AMEC report, unless otherwise specified in the Closure Plan by the qualified professional, and approved by the Director.
62. The Licencee shall develop the site so that the maximum elevation of the above ground deposit of waste including the final cover does not exceed twelve (12) metres.

### **SURFACE WATER**

63. The Licencee shall place permanent and temporary dyke structures to control surface drainage and divert surface runoff away from active waste disposal cells, construction areas and material storage areas.
64. The Licencee shall manage surface water, at the Development to prevent uncontrolled release from the Development.



65. The Licencee shall operate an internal drain system to direct runoff from the Development to the water storage area.
66. The Licencee shall operate the Development so that surface drainage leaving the Development does not generate more drainage flow than existed in the area prior to site development (i.e. in 2000).
67. The Licencee shall operate and maintain all surface water courses to minimize odour and pest problems, minimize sedimentation within the waterways, and to maximize nutrient reduction.
68. The Licencee shall sample the liquid in any water storage area that collects water from the site for those parameters identified in Appendix 'A', and receive approval of the assigned Environment Officer prior to release off site or use of the liquid.
69. The Licencee shall, with respect to on-site earthen construction works, construct and maintain silt fences in the drainage routes transporting surface runoff off the property of the Development until vegetation has been re-established on the disturbed areas, at the request, and in a timeframe specified by an Environment Officer.
70. The Licencee shall operate the water storage area such that the maximum liquid depth does not exceed 2.5 metres at any given time.

### **MONITORING AND REPORTING**

71. Where the Licencee fails to undertake the monitoring program required pursuant to Clauses 59 or 68 of this Licence, the Director may cause such monitoring to be undertaken and recover the cost of such monitoring from the Licencee.
72. The Licencee shall develop an action plan to be implemented in the event that the monitoring program identified any pollutant in air, soil, surface or groundwater, as a result of the operation of the Development, in excess of baseline levels. The plan shall be submitted to the Director for approval within sixty (60) days of the date of this Licence.
73. The Licencee shall submit to the Director the details of all incidents requiring contingency action regarding groundwater or surface water pollution within seven (7) days from the occurrence of such incidents.

## **RECORDS AND ANNUAL REPORT**

### **Record Drawings**

74. The Licencee shall prepare “record drawings” for the Development and label the drawings “record drawings” after completion of construction of each component or portion of a component of the Development.

### **Operation and Monitoring Records**

75. The Licencee shall have available for inspection by an Environment Officer or the Director upon request, records of all operational activities, monitoring and analytical results, reports, certifications and documents identified in this Licence. The hard copy records may be stored at an offsite location where the Development is managed from.
76. The Licencee shall keep for inspection, operating and monitoring records at the Development site office. These records may be kept in an electronic format and shall include the following:
- a) quantity of waste deposited at the site;
  - b) number of samples collected to establish groundwater quality data;
  - c) details of all incidents requiring the implementation of the contingency action plan regarding groundwater or surface water pollution; and
  - d) all monitoring, testing and analytical data generated.

### **Annual Report**

77. The Licencee shall, unless otherwise approved by the Director, on or before the 15th day of April of each year beginning in 2018, prepare an annual report with respect to all activities at the Development conducted pursuant to this Licence during the previous calendar year. The format of the report shall be approved by the Director and contain at minimum:
- a) a summary of any construction activities which occurred at the Development; including drawings required by Clause 74;
  - b) a topographic or UAV survey or plans showing the areas where waste has been disposed in the current and previous years;
  - c) the mass of each type of waste received (solid waste to tipping face, special wastes, SRM wastes, asbestos, etc.);
  - d) the mass of each type of material that was removed from the Development;
  - e) all Certifications and permits for acceptance of regulated materials (SRM (if applicable), weigh scale certification, etc.);
  - f) the volume of leachate which was removed from the Development for treatment (if applicable);
  - g) summary report of noise or odour complaints received;
  - h) monitoring results;

- i) details of all incidents requiring the implementation of the contingency action plan regarding groundwater or surface water pollution;
  - j) complaints received and actions taken; and
  - k) a summary report of any fires within the development requiring notification.
78. The Licencee shall compare the results included with the report pursuant to Clause 77 of this Licence with annual reports submitted in previous years to show trends and variances. The reports shall identify, at minimum, any significant variations, the cause of the variations and any actions taken.
79. The Licencee shall create an executive summary from the previous year's annual report, pursuant to Clause 77 of this Licence; the executive summary is to be submitted to the Director, and made available to the public:
- a) by deposit at the R.M. of Ritchot municipal offices and
  - b) at the Development site office.

#### **CONTINGENCY / EMERGENCY RESPONSE PLANS**

80. The Licencee shall prepare, within ninety (90) days of the date of issuance of this Licence, and maintain a contingency plan related to emergency planning and response at the Development, in accordance with the Canadian Centre for Occupational Health and Safety "Emergency Response Planning Guide" or other emergency planning guidelines acceptable to the Director, outlining procedures to be used in the event of leak, spill, fire, flood or other hazardous condition at the Development, or if waste management functions are disrupted.
81. The Licencee shall have available for inspection by an Environment Officer, upon request, records of the details of all incidents requiring the implementation of the Contingency or Emergency Response Plan at the Development site office.

#### **SITE SAFETY PLAN**

82. The Licencee shall maintain a Site Safety Plan in the Operations Manual in accordance with Provincial requirements.

#### **CLOSURE AND POST CLOSURE**

83. The Licencee shall submit, within twelve (12) months of the date of issuance of this Licence, for the approval of the Director, a preliminary Closure and Post Closure Plan for the Development. The plan shall address the closure of the leachate ponds and the landfill and shall include, but not be limited to, information with respect to the following:
- a) final cover design and maintenance;
  - b) maintenance of leachate detection, collection and treatment systems;
  - c) groundwater monitoring;

- d) removal of all ancillary equipment associated with the Development;
- e) restoration of the site to the satisfaction of the Director; and
- f) financial assurance required to implement the Plan.

- 84. The Licencee shall submit to the Director, not less than one (1) year prior to closure of the Development, an updated engineering design for the closure of the Development and the proposed post closure monitoring plan.
- 85. The Licencee shall, where an increase in the slope of the final cover due to settlement, or erosion of the final cover occurs during the post closure period, take remedial action to correct the situation and maintain the design.
- 86. The Licencee shall implement and maintain the approved Closure Plan for the Development pursuant to Clause 83 or 84 of this Licence and any terms and conditions set by the Director at the time of approval.

#### **FINANCIAL ASSURANCE/INSURANCE**

- 87. The Licencee shall provide to the Director confirmation of financial insurance coverage in the form of Environmental Impairment Liability insurance providing coverage subject to a minimum limit of \$1.0 million per occurrence or claim, including coverage for gradual, and sudden and accidental pollution. Coverage to include on-site and off-site clean up costs, and be placed with insurers satisfactory to the Province of Manitoba. The Province of Manitoba shall be added as an Additional Insured on the policy. The policy shall contain a clause stating that the Insurer will give Manitoba sixty (60) days prior written notice in case of significant reduction in coverage or policy cancellation.

#### **REVIEW AND REVOCATION**

- A. This Licence replaces Environment Act Licence No. 2482 R, which is now 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, 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**  
**The Environment Act**

**File: 4412.00**

**APPENDIX 'A'**  
**TO ENVIRONMENT ACT LICENCE NO. 2482 RR Clauses 59, 60 and 68**  
**Water Chemistry Parameters**

<b>Chemical Parameters</b>	
<b>Inorganics</b>	
Alkalinity – Total	Magnesium – Dissolved
Ammonia – Total	Manganese – Dissolved
Arsenic – Total	Mercury – Dissolved
Barium – Dissolved	Nitrate - Reported as N
Boron – Dissolved	Nitrite - Reported as N
Cadmium – Dissolved	Total Kjeldahl Nitrogen – Reported as N
Calcium – Dissolved	pH
Calcium Carbonate	Total Phosphorous
Chloride – Dissolved	Potassium – Dissolved
Chromium – Dissolved	Silicon – Dissolved
Conductivity	Sodium – Dissolved
Copper – Dissolved	Total Dissolved Solids (TDS)
Iron – Dissolved	Sulphate - Dissolved
Lead – Dissolved	Uranium – Dissolved
	Zinc – Dissolved
<b>Volatile Organic Compounds (VOC's)</b>	
BTEX	
<b>Other Organics</b>	
Biological Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)
Dissolved Organic Carbon (DOC)	
<b>Field Parameters</b>	
pH	Groundwater Elevation
Conductivity	Dissolved Oxygen
Temperature	

Note: This Schedule is subject to revision at any time by the Director.  
All metals (except Arsenic) are to be sampled for dissolved analysis.  
Dissolved samples should be filtered in the field and preserved in the field at time of sampling. If dissolved samples are not to be filtered and preserved in the field then the Director and the Laboratory must be notified prior to sampling.

**APPENDIX 'B'**  
**TO ENVIRONMENT ACT LICENCE NO. 2482 RR Clause 43**

**SOIL SAMPLING**

1. The Licencee shall provide a drilling rig, acceptable to the designated Environment Officer, to extract soil samples from the specified liner of the structure. This includes all liners constructed with clay. The drill rig shall have the capacity to drill to the maximum depth of the clay liner plus an additional 2 metres. The drill rig shall be equipped with both standard and hollow stem augers. The minimum hole diameter shall be 5 inches.
2. For liners placed or found at the surface of the structure, the Licencee shall provide a machine, acceptable to the designated Environment Officer, capable of pressing a sampling tube into the liner in a straight line motion along the centre axis line of the sample tube and without sideways movement.
3. Soil samples shall be collected and shipped in accordance with ASTM Standard D 1587 (Standard Practice for Thin-Walled Tube Sampling of Soils), D 4220 (Standard Practice for Preserving and Transporting Soil Samples) and D 3550 (Standard Practice for Ring-Lines Barrel Sampling of Soils). Thin-walled tubes shall meet the stated requirements including length, inside clearance ratio and corrosion protection. An adequate venting area shall be provided through the sampling head.
4. At the time of sample collection, the designated Environment Officer shall advise the Licencee as to the soil testing method that must be used on each sample. The oedometer method may be used for a sample were the Environment Officer determines that the soil sample is taken from an undisturbed clay soil which has not been remoulded and which is homogeneous and unweathered. The triaxial test shall be used for all samples taken from disturbed and remoulded soils or from non homogenous and weathered soils.
5. The Licencee shall provide a report on the collection of soil samples to the designated Environment Officer and to the laboratory technician which includes but is not limited to: a plot plan indicating sample location, depth or elevation of sample, length of advance of the sample tube length of soil sample contained in the tube after its advancement, the soil test method specified by the Environment Officer for each soil sample and all necessary instructions from the site engineer to the laboratory technician.
6. All drill and sample holes shall be sealed with bentonite pellets after the field drilling and sampling has been completed.

**APPENDIX 'B' (cont'd.)**  
**TO ENVIRONMENT ACT LICENCE NO. 2482 RR Clause 43**

**SOIL TESTING METHODS**

1. Triaxial Test Method
  - a) The soil samples shall be tested for hydraulic conductivity using ASTM D 5084 (Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter).
  - b) Soil specimens shall have a minimum diameter of 70 mm (2.75 inches) and a minimum height of 70 mm (2.75 inches). The soil specimens shall be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The hydraulic gradient shall not exceed 30 during sample preparation and testing. Swelling of the soil specimen should be controlled to adjust for: the amount of compaction measured during sample collection and extraction from the tube and the depth or elevation of the sample. The effective stress used during saturation or consolidation of the sample shall not exceed 40 kPa (5.7 psi) or the specific stress level, that is expected in the field location were the sample was taken, which ever is greater.
  - c) The complete laboratory report, as outlined in ASTM D 5084, shall be supplied for each soil sample collected in the field.
  
2. Oedometer Test Method
  - a) The soil samples shall be tested for hydraulic conductivity using ASTM D 2435 (Standard Test Method for One-Dimensional Consolidation Properties of Soils).
  - b) Soil specimens shall have a minimum diameter of 50 mm (2 inches) and a minimum height of 20 mm (0.8 inches). The soil specimens shall be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The soil specimen shall be taken from an undisturbed soil sample. The soil specimen shall be completely saturated.
  - c) The complete laboratory report, as outlined in ASTM D 2435, shall be supplied for each soil sample collected in the field.