

**Licence No.: 2594**

**Licence Issued: March 19, 2003**

**IN ACCORDANCE WITH THE ENVIRONMENT ACT (C.C.S.M. c. E125)**

**THIS LICENCE IS ISSUED PURSUANT TO SECTION 10(1) TO:**

**EDDIES GRAVEL SUPPLY LTD.; "the Licencee"**

for the construction and operation of the Development being a permanent asphalt plant located at the NW ¼ Section 6 Township 18 Range 4 EPM in the Rural Municipality of Gimli, in accordance with the Proposal under The Environment Act received January 21, 2002, 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 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;

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

**"aggregate"** means any crushed stone or slag, crushed or uncrushed gravel, sand or mineral filler;

**"approved"** means approved by the Director in writing;

**"asphalt or asphalt based material"** means a material produced as a result of crude oil distillation or solvent precipitation which is used as a binder or cementing agent when combined with aggregate and includes asphalt cement, cutback asphalt and emulsified asphalt;

**"ASTM"** means the American Society for Testing and Materials;

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

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

**"grab sample"** means a quantity of undiluted process water collected at any given time;

**"high water mark"** means the fluid level mark on the interior surface of the scrubber sediment retention pond which is normally reached when the cell is at the maximum allowable liquid level;

**"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;

**"low water mark"** means the fluid level mark on the interior surface of the scrubber sediment retention pond which is projected according to design or operational normal minimum volume storage;

**"noise nuisance"** means a continuous or repeated noise 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 the members of the public;

if the noise

- 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 noise 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;

**"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 the 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 unwanted 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;

**"opacity"** means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background;

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

**"particulate residue"** means that part or portion of an atmospheric emission which is deposited onto a surface;

**"point source"** means any point of emission from the Development where pollutants are emitted to the atmosphere by means of a stack;

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

**"RAP"** means any recycled material containing asphalt or asphalt based material;

**"riprap"** means small, broken stones or boulders placed compactly or irregularly on dykes or similar embankments for protection of earth surfaces against wave action or current;

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

**"significant"** means of important negative consequence as determined by an individual with demonstrated expertise who is qualified to make such judgements;

**"stack"** means a duct, pipe, chimney, vent, opening or other structure through which pollutants are emitted to the atmosphere;

**"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; and

**"wastewater"** means any liquid containing a pollutant as defined in The Environment Act, associated with or resulting from the Development which is discharged into the environment.

### **GENERAL TERMS AND CONDITIONS**

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. The Licencee shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the Development, at all times.
2. The Licencee shall reduce the production and dissemination of wastes by initiating and maintaining waste reduction and waste recycling programs.
3. The Licencee shall, upon the request of the Director and in addition to any of the limits, terms or conditions specified in this Licence:
  - 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 said 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.
4. 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. ensure that all analytical determinations are undertaken by an accredited laboratory; and
  - d. report the results to the Director within 60 days of the samples being taken.
5. 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.
6. The Licencee shall provide to the Director, upon request, all information required under this Licence, in writing and in such form and content (including number of copies), as may be specified by the Director.

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

#### **Respecting Air Emissions**

7. The Licencee shall not emit from the Development:
  - a. particulate matter in any air emission that:
    - i. exceeds 0.23 grams per dry standard cubic metre calculated at 25 degrees Celsius and 760 millimetres of mercury, from any point source of the Development;

- ii. exhibits a visible plume with an opacity of greater than 5 percent at any point beyond the property line of the Development; or
    - iii. results in the deposition of visible particulate residue at any time beyond the property line of the Development; or
  - b. particulate matter from any point source with an opacity that equals or exceeds:
    - i. 20 percent as the average of any 24 consecutive opacity observations taken at 15 second intervals;
    - ii. 20 percent for more than 16 individual opacity observations within any 1 hour period; or
    - iii. 40 percent for any individual opacity observation.
8. 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.
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.

### **Respecting Air Pollution Control**

10. The Licencee shall not store, use or process RAP at the Development.
11. The Licencee shall prevent the entrainment of particulate matter into the air at the Development resulting from the operation of vehicles or the transportation, storage or handling of aggregate or other material.
12. The Licencee shall, unless otherwise approved by the Director, for any process at the Development that causes a pollutant(s) to be directed into the air:
  - a. contain the pollutant(s) so as to prevent its release and dispersion; or
  - b. direct the polluted air stream to a pollution control device or system which has been designed for and demonstrated to be appropriate for reducing, altering, eliminating or otherwise acceptably treating or removing the pollutant(s);

such that compliance is maintained with any other applicable condition of this Licence.

13. The Licencee shall, within 30 days of the issuance of this Licence, or other time frame approved by the Director, submit for the Directors approval, a standard operating manual and a maintenance schedule for each air emission pollution control device or system based on the manufacturers recommendations.
14. The Licencee shall not operate any process directing an emission to an air pollution control device or system at the Development unless:
  - a. the operating and maintenance measures and status of the device or system are in full compliance with the approved procedure and schedule;
  - b. all treated emissions from the air pollution control device or system are immediately directed to a stack; and
  - c. the treated emissions from the air pollution control device or system do not contain concentrations of pollutants which:
    - i. are in violation of any applicable legal instrument including this Licence, an Act, Regulation or by-law; or
    - ii. otherwise create a significant health or environmental impact beyond the boundaries of the Development.

15. The Licencee shall maintain a log book of the most recent 24 month period to record all events and maintenances for each air pollution control device or system. The log book shall be kept at the Development and shall be available upon request for inspection by an Environment Officer. The log book shall record, at minimum, the following information:
  - a. identification of the unit and the process(s) it serves;
  - b. time/date of log entry; and
  - c. nature of event/maintenance.
16. The Licencee shall handle, store and dispose of all pollutants collected by the air pollution control equipment in a manner suitable to their characterization as type of waste or dangerous good.

### **Respecting Air Emission Sampling and Analysis**

17. The Licencee shall, upon written request from the Director, provide a stack or stacks including all necessary sampling facilities for the sampling of air emissions at the Development. The stack or stacks shall be provided:
  - a. at a location(s) and within a time frame satisfactory to the Director; and
  - b. to the specifications and in accordance with the most recent version of Manitoba Conservation Guideline, *Guideline for Stack Sampling Facilities*, unless otherwise approved by the Director.
18. The Licencee shall, upon a written request from the Director, submit a detailed plan which is acceptable to and approved by the Director, for the sampling and analysis of potential air pollutants, released as stationary point and fugitive emissions, including any compounds determined by the Director. The plan shall identify the rationale for the sampling, the ways and means by which the sampling program will be implemented including any special measures or methods which would be necessitated by influencing factors such as unfavourable weather conditions, the need for large or additional sample volumes, the need for multiple sampling runs, the methods used for the sampling and the analysis for each compound, the detection level to be attained, a comprehensive QA/QC program, and other items as may be identified by the Director.
19. The Licencee shall perform all stack sampling in accordance with the most recent version of Manitoba Conservation Report No. 96-07, *Interim Stack Sampling Performance Protocol*, unless otherwise approved by the Director.
20. The Licencee shall arrange the scheduling of the sampling program, submitted and approved pursuant to Clause 18, of this Licence, such that a representative of Manitoba Conservation is available to observe and audit the implementation of the sampling program.
21. The Licencee shall, within a timeframe to be determined by the Director, complete the sampling of emissions according to the approved plan submitted pursuant to Clause 18 of this Licence.
22. The Licencee shall, within 60 days of the receipt of the analytical results of the sampling plan pursuant to Clause 18 of this Licence, submit a report for the approval of the Director containing at minimum:
  - a. the raw data collected;
  - b. a discussion of the sampling and analytical portions of the program including any anomalies of sampling and analysis; and
  - c. a discussion of the significance of the data gathered with specific attention to:
    - i. the significance for potential acute and chronic impacts to health or environment from exposure to concentrations of the compounds detected;
    - ii. the need for risk assessment of the impact of emissions;
    - iii. the need for the establishment of ambient air monitoring stations;
    - iv. the need for dispersion modeling of emissions;

- v. results and conclusions of the QA/QC program; and
- vi. other issues as may be determined by the Director.

23. The Licencee shall, upon the written request of and in a timeframe stipulated by the Director, 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 Clauses 3 or 18 of this Licence.

### **Respecting The Scrubber Sediment Pond – Construction**

24. The Licencee shall, prior to the construction of the scrubber sediment retention pond:

- a. remove all the organic topsoil from the area where the pond will be constructed;
- b. drill a minimum of 3 test holes to a minimum depth of 7 metres within the footprint of the scrubber sediment retention pond for purposes of soil characterization;
- c. characterize the soil profile with respect to texture, moisture content and hydraulic conductivity; and
- d. prepare and submit a report to the Director addressing the suitability of the soil for the location and construction of the scrubber sediment retention pond.

25. The Licencee shall install and maintain a liner system, to be approved by the Director, under all interior surfaces of the scrubber sediment retention pond, such that the liner provides a continuous material of sufficient thickness and construction to provide an equivalent to a hydraulic conductivity of  $1.0 \times 10^{-7}$  centimetres per second or less of 1 metre of compacted clay.

26. The Licencee shall not compact any soil used in constructing the liner system of the scrubber sediment retention pond referred to in Clause 25 of this Licence when ambient temperatures are below freezing conditions.

27. The Licencee shall arrange with the designated Environment Officer a mutually acceptable time and date for any required sampling of the liner system of the scrubber sediment retention pond during a period of time when the liner system is in an unfrozen state.

28. The Licencee shall take and test a minimum of 3 and a maximum of 10 samples of the continuous material of the scrubber sediment retention pond interior surfaces referred to in Clause 25 of this Licence, in accordance with Attachment 'A' to this Licence, from locations acceptable to the designated Environment Officer.

29. The Licencee shall, not less than 10 working days before the scrubber sediment retention pond is placed into operation, submit the results of the tests, pursuant to Clause 28 of this Licence, to the Director for approval.

30. The Licencee shall install and maintain a fence around the scrubber sediment retention pond to restrict unauthorized access.

31. The Licencee shall undertake any works deemed by the Director to be necessary to upgrade the liner system, and shall complete the works within a time frame determined by the Director.

32. The Licencee shall maintain, at all times, a minimum of 1.0 metre of freeboard in the scrubber sediment retention pond.

33. The Licencee shall place rip rap on the exterior or interior dyke surfaces from 0.6 metres above the high water mark to at least 0.6 metres below the low water mark to protect the dykes from wave action or erosion from flood water if, in the opinion of the Director, significant erosion of the interior or exterior surfaces of the scrubber sediment retention pond is apparent.

### **Respecting Scrubber Sediment Retention Pond Monitoring**

34. The Licencee shall collect a grab sample of liquid from the scrubber sediment retention pond each October and

analyse the sample for pH, conductivity, boron, chloride sulphate, nitrate/nitrite, calcium, magnesium, sodium absorption ratio, sodium, and total organic carbon. The sample results shall be submitted to the Director within 60 days of sampling.

### **Respecting Wastewater**

35. The Licencee shall not discharge wastewater beyond the property boundaries of the Development and shall prevent the seepage of wastewater such that the groundwater beneath the Development does not become contaminated.
36. The Licencee shall discharge sewage only to a registered private sewage disposal system, a holding tank, or a municipal sewer system designed to receive such wastes.

### **Respecting Solid Waste**

37. The Licencee shall dispose of all solid waste generated from any activity at the Development, which is not recycled, only to a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 150/91 or any future amendment thereof, or a Licence issued pursuant to The Environment Act.

### **Respecting Contamination from Asphalt or Asphalt Based Materials**

38. The Licencee shall, within 60 days of the written request of the Director, submit a plan:
  - a. to conduct a site assessment at the Development to determine any existing contamination of the soil, surface water or ground water; and
  - b. to describe measures to be taken to contain and remediate any potential leak or spill which might result from the transportation, storage or handling of asphalt or asphalt based material at the Development.
39. The Licencee shall implement, as determined by the Director, any or all of the works described in the plan requested in Clause 38 of this Licence, within a time frame as determined by the Director.
40. The Licencee shall comply with all the applicable requirements of:
  - a. Manitoba Regulation 188/2001, or any future amendment thereof, respecting the *Storage and Handling of Petroleum Products and Allied Products*; and
  - b. The Dangerous Goods Handling and Transportation Act, and regulations issued thereunder, respecting the handling, transport, storage and disposal of any dangerous goods brought onto or generated at the Development.
41. The Licencee shall underlay all areas where asphalt or asphalt based material or products containing asphalt or asphalt based material are handled or stored, by a minimum of 30 centimetres of compacted clay.
42. The Licencee shall grade, surface and dike or curb all areas where asphalt or asphalt based material are stored, loaded, transferred or otherwise handled in a manner and using appropriate impermeable materials approved by the Director, such that any product spillage and contaminated run-off water from these areas is contained within the Development and contamination of groundwater is prevented.
43. The Licencee shall provide containment within any diked or curbed liquid chemical storage area for a volume of liquid equal to:
  - a. 110% of the volume of the largest storage tank located therein; and
  - b. the effective displacement volume of all other tanks and structures located therein.
44. The Licencee shall maintain the containment area volume capacity in Clause 43 of this Licence by the immediate

removal and disposal, in a manner approved by the Director, of all accumulated fluids.

### **Respecting Emergency Planning**

45. The Licencee, within 90 days of the issuance of this Licence, or other time frame approved by the Director, shall submit for approval of the Director, a contingency plan in accordance with the Manitoba Industrial Accidents Council (MIAC) *Industrial Emergency Response Planning Guide*, outlining procedures to be used in the event of a leak, spill, fire, or other hazardous condition at the Development.

### **REVIEW AND 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, 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 10 of The Environment Act.
- C. If construction of the Development is not commenced within three years of the date of this Licence, the Licence is revoked.

"original signed by"

**Larry Strachan, P. Eng.**  
**Director**  
**Environment Act**

**Client File No.: 4734.00**

**Attachment 'A' To Environment Act Licence No. 2594**

### **Soil Sampling:**

1. The Licencee shall provide a drilling rig, acceptable to the designated Environment Officer, to extract soil samples from the liner which is not placed or found at the surface of the lagoon structure, and can include constructions with clay cutoffs at the interior base of the dyke or with a clay cutoff in the centre of the dyke. The drill rig shall have the capacity to drill to the maximum depth of the clay cutoff 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 lagoon liners placed or found at the surface of the scrubber sediment retention pond 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.

### 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.