

LICENCE

Licence No. / Licence n° 2875

Issue Date / Date de délivrance April 1, 2009

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

Pursuant to Section / Conformément au Paragraphe 10(1)

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

R.M.D. Realty Ltd.; APPLICANT

for the construction and operation of the Development being a gasification plant located at River Lot 232 in the Parish of St. Norbert in the Rural Municipality of Ritchot, in accordance with the Proposal dated December 23, 2008, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"**accredited laboratory**" means facilities accredited by the Standard Council of Canada (SCC), or facilities accredited by another accrediting agency recognized by Manitoba Conservation to be equivalent to the SCC, or facilities which can demonstrate to Manitoba Conservation, upon request, that quality assurance/quality control (QA/QC) procedures are in place equivalent to accreditation based on the Canadian Standard Can/CSA-Z753, extension of the international standard ISO 9000, Guide 25;

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

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

"**biomedical waste**" means waste generated by human or animal health care facilities, medical or veterinary research and teaching establishments, health care teaching establishments, clinical testing or research laboratories, and facilities involved in the production or testing of vaccines and are human anatomical waste, animal waste, microbiological laboratory waste, human blood and body fluid waste and waste sharps;

"**dangerous good**" means any product, substance or organism designated in the regulations, or conforming with the criteria set out in the regulations, or in any regulation adopted in accordance with The Dangerous Goods Handling and Transportation Act, and includes hazardous wastes;

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

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

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

"hazardous waste" means a product, substance or organism that meets the criteria set out in the Classification Criteria for Products, Substances and Organisms Regulation, Manitoba Regulation 282/87, and that is intended for treatment or disposal and includes recyclable material;

"litter" means animal and agricultural wastes, domestic animal wastes, liquid and semi-liquid wastes, dead animals, ashes, garbage, construction and demolition wastes, industrial refuse, rubbish, solid wastes or refuse, motor vehicle parts, scrap metal, abandoned or unattended shopping carts and special wastes, including, but not limited to street cleanings, containers, packages, bottles, cans or parts thereof, and any discarded articles, products or goods of manufacture;

"maximum rate" means the determined maximum mass of feedstock material processed over a stated period of time at the Development and which may be used as reference for other determinations for limits, terms or conditions of this Licence;

"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 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; and
- f) is deemed by the Director, based on available information, to be valid.

"normal rate" means the determined average mass of feedstock material processed over a stated period of time at the Development and which may be used as reference for other determinations for limits, terms or conditions of this Licence;

"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; and

f) is deemed by the Director, based on available information, to be valid.

“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 emission” means any point of emission from the Development where pollutants are ducted into the atmosphere;

“QA/QC” means quality assurance/quality control;

“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

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. 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.
7. The Licencee shall designate an employee, within 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 14 days of appointment.

SPECIFICATIONS, LIMITS, TERMS, AND CONDITIONS

Respecting Air Emissions – Limits

8. The Licencee shall not emit particulate matter from the Development such that:
 - a) particulate matter:
 - i) exceeds 0.23 grams per dry standard cubic metre calculated at 25 degrees Celsius and 760 millimetres of mercury, corrected to 12 percent carbon dioxide 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) opacity from any point source of the Development 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.

Except where the Licencee demonstrates to the satisfaction of the Director that an equipment breakdown, process upset, shutdown, startup, or power failure has occurred.

9. The Licencee shall not cause or permit a noise nuisance to be created as a result of the operation or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.
10. The Licencee shall not cause or permit an odour nuisance to be created as a result of the 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 Equipment

11. The Licencee shall direct all air streams, which contain a pollutant(s) of concern to the Director, to a pollution control device which has been designed for and demonstrated to be capable of reducing, altering, eliminating or otherwise treating the pollutant(s).
12. The Licencee shall submit to the Director within 90 days of the issue date of this licence, a standard operating procedural manual and a maintenance schedule for each air emission pollution control device based on the manufacturer's specifications and recommendations.
13. The Licencee shall not operate any process directing an emission to an air pollution control device at the Development unless:
 - a) the operating and maintenance measures and status of the device are in full compliance with the approved procedures and timetables;
 - b) all emissions from the process are directed to the fully operational air pollution control device;
 - c) all discharges of treated emissions from the air pollution control devices are immediately directed to a stack; and
 - d) the emissions do not contain concentrations of pollutants which:
 - i) are in violation of any other applicable legal instrument including an Act, Regulation or by-law; or
 - ii) otherwise create a significant negative environmental or health impact in the affected area.
14. The Licencee shall maintain a log book of the most recent 24 month period to record any downtime of an air pollution control device due to either the breakdown or maintenance of that air pollution control device. 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 air pollution control device and the process(s) it serves;
 - b) time/date of log entry;
 - c) nature of event;
 - d) duration of event;
 - e) the accumulated downtime of this air pollution control device for the events for each calendar year; and
 - f) signature of the Environmental Coordinator.
15. 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 Emissions – Sampling, Analysis, Reporting

16. The Licencee shall provide a stack or stacks, at the request of the Director, at any area of the Development 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.

17. The Licencee, within 90 days of the issue date of this Licence, shall 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. 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.

18. The Licencee, within 180 days of the issue date of this Licence, shall complete the sampling program approved pursuant to Clause 17 of this Licence.

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, approved pursuant to Clause 17 of this Licence, such that a representative of Manitoba Conservation is available to monitor and audit the implementation of the sampling program.

21. The Licencee, within 60 days of the receipt of the analytical results of the sampling program approved pursuant to Clause 17 of this Licence, shall 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.

22. The Licencee, upon the 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 Clauses 3, 11, or 21 of this Licence.

Respecting Air Dispersion Modelling of Emissions

23. The Licencee shall submit, upon the request and for the approval of the Director, a proposal for the air dispersion modelling of all emissions from the Development such that any health, environmental or nuisance impact is assessed.

24. The Licencee shall submit, within a time frame stipulated by the Director, a report discussing the results of the air dispersion modelling performed in accordance with the proposal approved pursuant to Clause 23 of this Licence.

Respecting Feedstock Receipt, Storage, and Processing

25. The Licencee shall only accept at the Development natural plant material as feedstock material which is intended for processing.

26. The Licencee shall only store or accumulate at the Development natural plant material as feedstock material which is intended for processing.

27. The Licencee shall not store more than 30 tonnes of natural plant material as feedstock material at the Development at any time.

28. The Licencee shall only process natural plant material in the gasification plant, unless otherwise approved by the Director.

29. The Licencee shall not accept dangerous goods or hazardous waste at the Development, at any time.

30. The Licencee, notwithstanding Clause 29 of this Licence, shall remove all dangerous goods or hazardous waste from the feedstock material prior to processing, and shall properly segregate, store and dispose of the dangerous goods in a manner approved in writing by the Director.

31. The Licencee shall not store any feedstock material within 100 metres of a surface watercourse, surface water body, spring, or well.

32. The Licencee shall not accept biomedical waste at the Development at any time.

33. The Licencee shall not allow litter beyond the property boundaries of the Development resulting from the transportation, storage or processing of feedstock material at the Development.

Respecting Feedstock Material Recordkeeping

34. The Licencee shall account for and record all feedstock material received at the Development on a 24 hour basis and shall maintain the most recent 24 months of records at the development. This 24

hour period shall begin at 12:00 am. The record shall identify for each day that feedstock material is received:

- a) the type of feedstock material received;
- b) the date of receipt of the feedstock material; and
- c) the 24 hour period gross mass of the feedstock material received in tonnes.

35. The Licencee shall account for and record all feedstock material gasified at the Development on a 24 hour basis and shall maintain the most recent 24 months of records at the development. This 24 hour period shall begin at 12:00 am. The record shall identify for each day that feedstock material is processed:

- a) the type of feedstock material processed;
- b) the date of processing of the feedstock material; and
- c) the 24 hour period gross mass of the feedstock material gasified in tonnes.

36. The Licencee shall submit to the Director, upon written request of the Director, monthly summaries of the information required by Clauses 34 and 35 of this Licence by the last day of the following month.

Respecting Feedstock Material Processing

37. The Licencee shall not incorporate the use of fossil fuels in the processing of feedstock materials and in the general operation of the gasification plant, unless approved by the Director.

Respecting Ash Management

38. The Licencee shall, within 90 days of the issue date of this Licence sample a representative portion of ash generated at the facility for analysis by an accredited laboratory to determine:

- a) toxicity in accordance with the most recent edition of Environment Canada, Environmental Protection Service test method EPS 1/RM11, "*Biological Test Method: Acute Lethality Test Using Daphnia spp.*"; and
- b) leachate characteristics for copper, nickel, and zinc and for the compounds listed in Table 1 of Schedule B of Manitoba Regulation 282/87, or any future amendment thereof.

39. The Licencee shall submit a report of the analyses conducted pursuant to Clause 38 of this Licence to the Director within 15 days of their receipt.

40. The Licencee shall store ash at the site in a manner that prevents fugitive dust emissions from being generated and prevents the ash from becoming a hazard.

41. The Licencee shall not dispose of ash generated at the Development which is characterized as a hazardous waste without written approval from the Director.

42. The Licencee shall dispose of ash only at approved waste disposal grounds, unless otherwise approved by the Director.

43. The Licencee shall determine and record the mass and volume of all ash generated at the Development on a weekly basis and shall maintain the most recent 24 months of records at the Development.

Respecting Emergency Response Planning


44. The Licencee shall, within 60 days of the issue date of this licence, submit an emergency response contingency plan in accordance with the Manitoba Industrial Accidents Council (MIAC) *Industrial Emergency Response Planning Guide*.

Respecting Decommissioning

45. The Licencee shall submit within one (1) year prior to closure of the manufacturing facility, for the approval of the Director, a formal detailed Decommissioning Plan for the manufacturing facility.

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.



Tracey Braun, M. Sc.
Director
Environment Act

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