

# Environment Act Licence

## Loi sur l'environnement Licence

Manitoba  
Conservation  
Conservation  
Manitoba



Licence No./Licence n° 2735  
Issue Date/Date de délivrance September 27, 2006

**IN ACCORDANCE WITH THE ENVIRONMENT ACT (C.C.S.M. c. E125)  
THIS LICENCE IS ISSUED PURSUANT TO SECTION 10(1) TO:**

### **MINTO ETHANOL LTD.; "the Licencee"**

for the operation of the Development being an on farm ethanol and distillers grain (mash) manufacturing plant, to be located on the SE ¼ 28-15-19 WPM in the Rural Municipality of Whitewater, in accordance with the Proposal filed under The Environment Act on June 26, 2006 and subject to the following specifications, limits, terms and conditions:

### **DEFINITIONS**

In this Licence,

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

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

"**baghouse**" means a chamber containing fabric filter bags that remove particles from stack exhaust gases;

"**boiler**" means any combustion equipment fired with fossil fuel, biomass or a by-product derived from fossil fuel, for the purpose of generating hot water or steam;

"**CCME**" means Canadian Council of Ministers of the Environment;

"**CO**" means carbon monoxide;

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

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

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

**"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 the 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;

**"NO<sub>x</sub>"** means oxides of nitrogen, including nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>), expressed collectively as a nitrogen dioxide equivalent;

**"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 of 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;

"**organic compounds**" means chemical compounds containing carbon combined with hydrogen, and often also with oxygen, nitrogen and other elements;

"**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;

"**PM<sub>10</sub>**" means particulate matter less than or equal to 10µm in diameter;

"**PM<sub>2.5</sub>**" means particulate matter less than or equal to 2.5µm in diameter;

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

"**ppm**" means parts per million

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

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

"**specific gravity**" means the density of a substance relative to the density of water;

"**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;

"**TPM**" means total particulate matter; and

"**volatile organic compounds (VOC)**" means any organic compound which participates in atmospheric photochemical reactions, excluding methane, ethane, 1,1,1-trichloroethane, methylene chloride, chlorofluorocarbons, fluorocarbons, hydrochlorofluorocarbons.

### **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) engage an accredited laboratory to conduct all analytical determinations; and
  - d) report the results to the Director within 60 days of the samples being taken.
5. 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.
6. The Licencee shall carry out, as deemed necessary by the Director, any remedial measures or modifications in respect to matters authorized under this Licence.
7. The Licencee shall, during construction and operation of the Development, report spills of fuels or other contaminants in accordance with the requirements of *Manitoba Regulation 439/87* respecting *Environmental Accident Reporting* or any future amendment thereof.

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

### **Respecting Construction**

8. The Licencee shall, during construction of the Development, operate, maintain and store all materials and equipment in a manner that prevents any deleterious substances (fuel, oil, grease, hydraulic fluids, coolant, paint, uncured concrete and concrete wash water, etc.) from entering discharge routes and associated watercourses.

### **Respecting Waste Stillage and Liquid Wastes Disposal**

9. The Licencee shall dispose of any waste stillage from the Development in accordance with the provisions of The Environment Act and the regulations issued there under.
10. The Licencee shall sample, monitor, analyze any and all wastewater resulting from water softening processes that is to be disposed of in any on site septic system to ensure the septic leach field will not be overloaded.

### **Respecting Air Emission Control Equipment**

11. The Licencee shall maintain and operate all air emission control equipment according to the specifications and recommendations of the manufacturer.
12. The Licencee shall maintain records of all maintenance of the air emission control equipment including any measurable parameters, dates of inspection/maintenance and actions taken. These records are to be made available to an Environment Officer upon request.
13. The Licencee shall maintain records of all down times of the air emission control equipment, including dates and times of down time and actions taken. These records are to be made available to an Environment Officer upon request.
14. The Licencee shall not operate any processes with air emissions which are normally treated by the emission control equipment, if the emission control equipment is not properly maintained or is not operating to the specifications of the manufacturer.

### **Respecting Air Emissions**

15. 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 for processes involving combustion, 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.
- 16. 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.
- 17. 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.
- 18. The Licencee shall at the request of the Director conduct air emission testing, after reaching normal operation and annually thereafter, unless otherwise approved by the Director, to demonstrate compliance with air emission limits using standardized methodologies for nitrogen oxides (NO<sub>x</sub>), TPM, PM<sub>10</sub>, CO, and VOC's;
- 19. The Licencee shall provide an annual report on air emissions on or before the 15<sup>th</sup> of February of the following year of operation to the Director for the following parameters:
  - a. total particulate matter (TPM), PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO, VOC; and
  - b. greenhouse gas emissions ( as individual species and as CO<sub>2</sub> (equivalent)):The emissions should be subdivided into the categories of fermentation emissions and combustion emissions.

### **Respecting Maintenance and Operation**

- 20. The Licencee shall ensure that all final equipment design and installation is reviewed and approved by a professional engineer knowledgeable in the area of chemical plant design. A copy of the approval is to be provided to the Director prior to commencement of operation.
- 21. The Licencee shall operate and maintain storage tanks (including mash storage; beer well; stillage holding tank; ethanol storage) not specifically exempted by Section 2.2 (Exemptions) of the Canadian Council of Ministers of the Environment (CCME) document *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks*. (CCME-EPC-87E), to conform with Part 4 (Requirements) and Part 5 (Specifications) of this CCME document.

22. The Licencee shall inspect and keep records for those tanks not specifically exempted by Section 2.2 (Exemptions) of the Canadian Council of Ministers of the Environment (CCME) document "*Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks*" (CCME-EPC-87E), to conform with Part 6 (Inspections) and Part 7 (Record Keeping) of this CCME document.

**Respecting Air Emissions – Monitoring, Source Sampling, Analysis, Reporting**

23. The Licencee shall 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.
24. The Licencee, upon written request from the Director, shall submit a detailed plan pursuant to Clause 23, 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, etc.; 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.
25. 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.
26. The Licencee shall arrange the scheduling of the sampling program submitted pursuant to Clause 24 of this Licence such that a representative of Manitoba Conservation could be available to monitor and audit the implementation of the sampling program.
27. The Licencee shall complete the sampling of emissions according to the approved plan submitted pursuant to Clause 24 of this Licence, within a timeframe to be determined by the Director.
28. The Licencee shall submit a report, for the approval of the Director, of the completed sampling and analysis plan approved pursuant to Clause 24 of this Licence, within 90 days of the receipt of the analytical results of that sampling plan. The report shall contain at minimum:
- a) the raw data collected;
  - b) calculation of emission rates for all parameters;

- c) a discussion of the sampling and analytical portions of the program including any anomalies of sampling and analysis; and
- d) 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.

### **Respecting Chemical Storage and Spill Containment**

- 29. The Licencee shall install and maintain, for all chemical storage structure(s), an automatic system(s) for fire detection and security.
- 30. The Licencee shall construct and maintain concrete floors with a minimum 10 cm retention curbing around the perimeter of all chemical structure(s) so as to prevent spilled liquids from leaking into the soil.
- 31. The Licencee shall contain on the Development:
  - a) any on-site chemical spill;
  - b) waste water generated from any response action due to an on-site release of chemicals; and
  - c) contaminated water resulting from the extinguishing of any fire involving chemicals.
- 32. The Licencee shall provide containment within any curbed chemical tank farm storage area for a volume of liquid equal to 110% of the volume of the largest storage tank located therein.
- 33. The Licencee shall maintain the containment area volume capacity in Clause 32 of this Licence by the immediate removal and disposal, in a manner approved by the Director, of all accumulated fluids.
- 34. 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*;
  - 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; and
  - c) the Office of the Fire Commissioner – Province of Manitoba.
- 35. The Licencee shall provide containment for all vessels containing chemicals and in each area of the Development where the chemicals are stored, loaded, transferred, used or otherwise handled, in compliance with the latest edition of the National Fire Code of Canada, or any future amendment thereof such that any product leakage or spillage and any contaminated liquid generated is contained within the Development and contamination of groundwater is prevented.



**Respecting Emergency Response Planning**

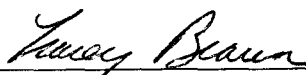
36. The Licencee, shall submit, within 90 days of the issuance of this Licence, or other time frame approved by the Director, for approval of the Director, a site drainage plan and a contingency plan in accordance with the Manitoba Industrial Accidents Council (MIAC) *Industrial Emergency Response Planning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

**Respecting Closure and Post Closure Plan**

37. The Licencee shall submit, within 6 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 outlining the methods and procedures to be initiated at the decommissioning of the Development. The plan shall include, but not be limited to, information with respect to:
- a) removal of all ancillary equipment associated with the Development;
  - b) ground water monitoring; and
  - c) restoration of the site to the satisfaction of the Director.
38. The Licencee shall submit for the approval of the Director, within one year prior to imminent closure of the Development, a formal detailed Closure and Post Closure Plan for the Development.
39. The Licencee shall implement and maintain the approved Closure and Post Closure Plan for 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.

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