

Licence No.: 1911 S2

Licence Issued: September 11, 1998

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)
THIS LICENCE IS ISSUED PURSUANT TO SECTIONS 10(8) AND 13(1) TO:**

ISOBORD ENTERPRISES INC.; "the Licencee"

STAGE 2 LICENCE

for the testing of equipment components and start-up of the Development being a Particle Board Plant proposed pursuant to The Environment Act on May 24, 1994, to be located on all that portion of Lot 1 Plan 34220 PLTO in the North East quarter of Section 1, Township 11, Range 3 WPM and Lot 1 Plan 33714 PLTO in the North East quarter of Section 1, Township 11, Range 3WPM in the R. M. of Cartier and the installation of equipment therein, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"accredited laboratory" means a laboratory accredited by Standard Council of Canada (SCC), or another accrediting agency recognized by Manitoba Environment to be equivalent to the SCC, or a laboratory which can demonstrate to Manitoba Environment, upon request, that it has the quality assurance/quality control (QA/QC) procedures are in place equivalent to accreditation abased on the Canadian Standard Can/CSA-Z735, 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, or an assigned Environment Officer, in writing;

"appurtenances" means machinery, appliances, or auxiliary structures attached to a main structure to enable it to function, but not deemed an integral part of it;

"blender waste" means waste resin and straw material removed from the resin blenders;

"days" means calendar days unless otherwise indicated;

"designated event" means an operating event which results in short term emissions greater than expected during normal operation of the development;

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

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

"EPA" means United States Environmental Protection Agency;

"failure" means either an event or series of events where a piece of equipment is not operating or is operating outside the normal operating range for any parameter and which may result in the release of a pollutant in excess of any specification, limit, term, or condition of this Licence, or the omission of an action described in the approved contingency plan or detailed inspection and maintenance plan which may result in the non-detection of a release of a pollutant in excess of any specification, limit, term, or condition of this Licence;

"fugitive dust emissions" means particulate matter escaping from sources within the plant property into the atmosphere other than through any of the emission stacks or vents listed in Schedule 3 of this Licence;

"general solid wastes" means solid wastes generated from plant consumables such as, but not limited to, used sander belts, refractory materials, office and employee generated waste, but does not include hazardous wastes;

"grab sample" means a single sample taken at a given place and time;

"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;

"influent" means water, wastewater, or other liquid flowing into a wastewater treatment facility;

"misspread waste" means straw material that has been blended with resin and formed into a mat but not pressed into particle board;

"MDI" means Methylene Diphenyl Diisocyanate;

"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 and 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 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 and 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;

"PM₁₀" means particulate matter that is 10 micrometre (µm) or less in diameter;

"point source" means any point of emission from a Development where pollutants are ducted into the atmosphere;

"primary product" means three-quarter inch, 40 pound, finished particle board;

"recyclable material" means a waste that is intended for reuse, recovery or recycling but does not include a product, substance or organism that is intended to be:

- a. applied into or onto land, or
- b. disposed of in a thermal destruction process;

"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;

"shakedown period" means the initial period of setting the plant into production during which a plant component requires adjustment to determine normal operation;

"total particulate matter" means the total of both the condensable and filterable particulate matter;

"TPM" means total particulate matter;

"trained observer" means a person who attended approved field determination of opacity training within the preceding year;

"VOC" means volatile organic compound;

"volatile organic compound" means any organic compound which participates in atmospheric photochemical reactions, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, ammonium carbonate, and other compounds which may be exempt by the Director; and

"waste straw material" means un-contaminated reject straw, straw cleaning fines, fire dump material, and other material approved by the Director.

GENERAL SPECIFICATIONS

This Section of the Licence contains requirements intended to provide guidance to the Licencee in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

1. In addition to any of the following specifications, limits, terms or conditions specified in this Licence, the Licencee shall, upon the request of the Director:
 - a. sample, monitor, analyze or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants, ambient quality, aquatic toxicity, leachate characteristics, or discharge 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 plant;
 - c. conduct specific investigations in response to the data gathered during environmental monitoring programs; or
 - d. provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, flow rate measurements and such other information as may from time

to time be requested.

2. The Licencee shall, unless otherwise specified in this Licence:
 - a. carry out all preservations and analyses on liquid samples in accordance with the methods prescribed in the most current 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 Pollution Control Federation, or in accordance with an equivalent analytical methodology approved in advance;
 - b. carry out all sampling of, and preservation and analyses on air samples in accordance with the appropriate Schedule attached to this Licence or with methodologies approved in advance for those variables for analyses not listed in a Schedule;
 - c. carry out all sampling of, and preservation and analyses on solid samples in accordance with methodologies approved in advance;
 - d. ensure that all analytical determinations are undertaken by an accredited laboratory; and
 - e. report the results to the Director within 60 days of the samples being taken or within the time frames specified in advance by the Director.
3. The Licencee shall ensure that all monitoring activities, data collection and interpretations requested through the provisions of this Licence are carried out by individuals properly trained or qualified to carry out these tasks.
4. Unless otherwise specified by this Licence, all information required to be provided to the Director under this Licence shall be in writing, in such form (including number of copies), and of such content, as may be required by the Director.
5. The Licencee shall reduce the production and dissemination of wastes by initiating and maintaining waste reduction and waste recycling programs.
6. The Licencee shall, as deemed necessary by the Director for effective environmental management, carry out any remedial measures, modifications, or alterations in respect to matters authorized under this Licence.
7. The Licencee shall, in case of physical or mechanical equipment breakdown or shutdown of the pollutant collection, conveyance, control or monitoring equipment, or a process upset; and such breakdown, shutdown, or upset may result in the emission, release, or discharge of a pollutant, or the failure to detect the emission, release, or discharge of a pollutant, in excess of any specification, limit, term, or condition of this Licence, notify the Director, the Rural Municipality of Cartier, and the Village of Elie:
 - a. as soon as possible but no later than within 12 hours of the occurrence; or
 - b. before noon of the first business day following an occurrence on a weekend or statutory holiday.

Such notification shall be by facsimile or any other notification procedure approved in advance, stating the nature of the occurrence, the time and estimated duration of the event and the reason for the occurrence.

8. The Licencee shall implement the emergency contingency plan, submitted on May 29, 1998, and implement any conditions of the approval of the emergency contingency plan. The Licencee may submit, for approval, amendments to the plan. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.
9. The Licencee shall submit, to the Director for approval, not later than December 1, 1998, or at such later date as may be approved in advance by the Director, a financial assurance plan, outlining the financial assurance mechanisms the Licencee proposes respecting the Development. Subsequent to the approval of the financial assurance plan, the Licencee may submit, to the Director for approval, proposed amendments to the plan. The Licencee shall implement any amendments approved by the Director in a manner and within the time frames specified by the Director.

MONITORING AND REPORTING

10. The Licencee shall continue implementation of the monitoring plans approved on June 17, 1997. The Licencee may submit, for approval, proposed amendments to the monitoring plans. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.
11. The Licencee shall:
 - a. conduct stack emission monitoring for each source listed in Schedule 1 attached to this Licence, in accordance with the methods listed in Schedule 1 unless otherwise approved in advance and during production conditions that will reflect the maximum emissions rates under expected operating conditions;
 - b. conduct the stack emission monitoring between October 1, 1998, and June 30, 2000; and
 - c. prepare and submit a report on the calibrations, preliminary sampling, final sampling, final sampling results, conclusions, quality assurance/quality control program data, production information, and control equipment operating data during the sampling program.

The Licencee may submit, for approval, proposed amendments to the above requirements or Schedule 1. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

12. The Licencee shall, for the monitoring outlined in Clause 11 of this Licence, provide the Director with notice, at least:
 - a. 21 days prior to the date that the stack emission monitoring is scheduled, where the reference sampling method will be used; or
 - b. 60 days prior to the date that the stack emission monitoring is scheduled where an alternative method is submitted to the Director for approval.
13. The Licencee shall, during the term of this Licence, determine the normal operating range for each of the parameters listed in Schedule 2 of this Licence, develop a list of designated events and submit to the Director:
 - a. within 30 days of the end of the shakedown period or at such time as the Director specifies, a report describing the interim normal operating ranges and listing the designated events; and
 - b. not later than August 1, 2000, a report describing the normal operating ranges for each of the parameters listed in Schedule 2 of this Licence and the designated events.

The Licencee may submit, for approval, proposed amendments to the reports. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

14. The Licencee shall submit, to the Director for approval, not later than November 1, 1998, or at such later date as may be approved in advance by the Director, an interim plan for inspection and maintenance of emission control and monitoring equipment. The plan shall be prepared to prevent, detect, and correct malfunctions or equipment failures that may cause emission limits to be violated. Subsequent to the approval of the inspection and maintenance plan, the Licencee may submit, for approval, proposed amendments to the plan. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.
15. The Licencee shall provide, at the request of the Director, sampling facilities at designated point sources. The facilities shall include proper access, personnel safety features, power supply, conduits, stacks, or sampling ports, as deemed necessary by the Director and any other features as may be specified by the Director.
16. The Licencee shall be responsible for payment of costs incurred by the Director or on his behalf, deemed by the Director, in accordance with Schedule 4 attached to this Licence, to be necessary for the purpose of:
 - a. monitoring any pollutants for which a limit is prescribed by this Licence;

- b. reviewing the Licencee's obligation to monitor pursuant to Clause 11 of this Licence or reviewing any other obligations for monitoring imposed on the Licencee pursuant to this Licence; or
- c. determining compliance with any other specification, limit, term, or condition of this Licence.

The information collected as a result of monitoring of any pollutant for which a limit is prescribed in this Licence or while determining compliance with any other specification, limit, term, or condition of this Licence, may be used in evidence in any prosecution for an offense under The Environment Act subject to evidentiary rules as applicable.

CONSTRUCTION SPECIFICATIONS

17. The Licencee shall construct the runoff collection ditch network with clay or other suitable soil material such that all interior surfaces of the runoff collection ditch network are lined with a minimum of 0.5 metres of soil having a hydraulic conductivity of 1×10^{-7} centimetres per second or less.
18. The Licencee shall, prior to the construction of the runoff retention pond remove all organic topsoil from the area where the dykes will be constructed.
19. The Licencee shall construct the runoff retention pond with clay or other suitable soil material such that all interior surfaces of the runoff retention pond are lined with a minimum of 1.0 metres of soil having a hydraulic conductivity of 1×10^{-7} centimetres per second or less.
20. The Licencee shall protect the Development from a maximum flood event with an expected 1% frequency.
21. The Licencee shall submit, to the Director, not later than September 1, 1999, an up-dated Detailed Design Report, including the final plant layout, as-constructed drawings, final design inputs and outputs, equipment inventory and operating specifications under normal and maximum expected operating conditions including air emission control systems, and all associated duct work.

SPECIFICATIONS LIMITS, TERMS, AND CONDITIONS

Waste Straw Material

22. The Licencee shall maintain the waste straw material collection, conveyance, and storage facilities of such materials in such a manner as to prevent the release of fugitive dust emissions from the waste straw material handling facilities beyond the boundary of the property on which the Development is situated.
23. The Licencee shall reuse all appropriate waste straw material in the process.
24. The Licencee shall ensure that waste straw material that is not reused is disposed at a waste disposal ground approved pursuant to Manitoba Regulation 150/91 or in a manner approved by the Director.

Blender Waste

25. The Licencee shall maintain the blender waste collection, conveyance, and storage facilities of such materials in such a manner as to prevent the contamination of groundwater or the release of fugitive dust emissions from the blender wastes handling facilities beyond the boundary of the property on which the Development is situated.
26. The Licencee shall ensure that all blender waste is neutralized in accordance with the resin supply company instructions before disposal.
27. The Licencee shall submit, to the Director for approval, a plan for the disposal of blender wastes and shall thereafter dispose of all blender wastes in accordance with that approved plan.

Misspread Waste

28. The Licencee shall maintain the misspread waste collection, conveyance, and storage facilities of such materials in such a manner as to prevent the contamination of groundwater or the release of fugitive dust emissions from the misspread waste handling facilities beyond the boundary of the property on which the Development is situated.
29. The Licencee shall ensure that all misspread waste is neutralized in accordance with the resin supply company instructions before disposal.
30. The Licencee shall submit, to the Director for approval, a plan for the disposal of misspread waste and shall thereafter dispose of all misspread waste in accordance with that approved plan.

General Solid Waste

31. The Licencee shall recycle all appropriate general solid wastes to any available regional recycling program(s).
32. The Licencee shall ensure that all general wastes that are not recycled are disposed at a waste disposal ground approved pursuant to Manitoba Regulation 150/91.

ATMOSPHERIC EMISSION MANAGEMENT

33. The Licencee shall not emit total particulate matter:
 - a. from any source of emission within the Development, subject to sub-clause 33(b) such that:
 - i. the average of any 24 consecutive opacity observations taken at 15 second intervals exceeds 20 percent;
 - ii. more than 16 individual opacity observations within any 1 hour period exceed 20 percent; or
 - iii. any individual opacity observation exceeds 40 percent; or that
 - b. during any designated event such that:
 - i. the average of any 24 consecutive opacity observations taken at 15 second intervals exceeds 40 percent;
 - ii. more than 16 individual opacity observations within any 1 hour period exceed 40 percent;
 - iii. any individual opacity observation exceeds 60 percent; or
 - c. any source of emission within the Development such that a visible particulate residue is deposited, at any time, beyond the boundary of the property on which the Development is situated.
34. The Licencee shall not test, alter or operate the Development or any component of the Development, or permit the Development or component of the Development to be tested, altered or operated, in such a manner that causes or results in an odour nuisance, and shall take such steps as the Director may require to eliminate or mitigate an odour nuisance.
35. The Licencee shall not test, alter or operate the Development or any component of the Development, or permit the Development or component of the Development to be tested, altered or operated, in such a manner that causes or results in a noise nuisance, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.
36. The Licencee shall not emit any pollutant from any pollutant sources listed in Schedule 1 of this Licence other than through the listed control equipment, unless approved in advance by the Director.

37. The Licencee shall not, subject to Clause 38 of this Licence, emit pollutants from the Development, during the production of primary product, such that any pollutant from the following sources exceeds the limit value listed, as averaged over a sampling period:

Pollutant Source	Pollutant	Limit (grams per second)
Source No. 1: Press Vent	TPM MDI	0.0060 0.0003
Source No. 3: Bale breaking and hammer mill Baghouse: Filter 803	TPM	0.032
Source No. 4: Straw refining mill Baghouse: Filter 804	TPM	0.118
Source No. 5: Dryer Multicyclone	TPM	1.62
Source No. 6: Blender and former Baghouse: Filter 808	TPM	0.056 normal operation 0.126 during misspread pneumatic transport
Source No. 7: Pre-trimming saw Baghouse: Filter 813	TPM	0.053
Source No. 8: Sanding machine Baghouse: Filter 815	TPM	0.018
Source No. 9: Trimming and sizing saw Baghouse: Filter 819	TPM	0.037

38. The limits prescribed pursuant to Clauses 33 and 37 of this Licence shall come into force upon termination of the shakedown period or at such time as the Director deems appropriate. The Director may alter the limits prescribed pursuant to Clause 33 or 37 as the result of evidence gathered during the term of this Licence where those limits cannot reasonably be achieved and the potential environmental effects resulting from the altered emission limits are insignificant.

REVOCATION

- A. If in the opinion of the Director, the Licencee is in contravention of or has contravened the specification, limits, terms, or conditions set out herein, the Director may revoke, temporarily or permanently, this Licence.
- B. This Licence replaces Licence No. 1911 S1 and as of the date of this Licence, Licence No. 1900 S1 is no longer in effect.

C. This Licence expires twenty-four (24) months from the date of issuance.

"original signed by"
Larry Strachan, P. Eng.
Director
Environment Act

Client File No.: 3811.00

Schedule 1
To Environment Act Licence 1911 S2
Point Source Monitoring Plan

Sources and Control Equipment	Parameter	Method¹
Source No. 1 Press Vent No controls	TPM PM ₁₀ NO _x MDI THC (VOC)	EPA 1-5, 202 EPA Method 201 or 201A, and 202 ² EPA 7(B, C, D or E) EPA 207 (draft) EPA 25A
Source No. 2 Thermal Oil Heater Stack No controls	CO NO _x	EPA 10 EPA 7(B, C, D or E)
Straw refining mill (Source No. 4) Baghouse: Filter 804	TPM PM ₁₀	EPA 1-5, 202 EPA Method 201 or 201A, and 202 ²
Source No. 5 Dryer Multicyclone	TPM PM ₁₀ THC (VOC) NO _x CO MDI HCHO HCN	EPA 1-5, 202 EPA Method 201 or 201A, and 202 ² EPA 25A EPA 7(B, C, D or E) EPA 10 EPA 207 (draft) EPA 0011 EPA 5 w/ dilute NaOH in 1 st impinger
Source No. 8 Sanding machine Baghouse: Filter 815	TPM PM ₁₀	EPA 1-5, 202 EPA Method 201 or 201A, and 202 ²

Notes to Schedule 1

¹ Use latest version of methods promulgated by the respective agencies.

2 Method 202 data from TPM tests may be substituted for data for PM₁₀ in this application only if both tests are conducted under identical process conditions.

Schedule 2
To Environment Act Licence No 1911 S2
Operating Parameters

General Plant

- a. Daily production for size of particle board, recorded as tonnes of finished product from the Press;
- b. Daily weight and rate of application of each resin added;
- c. Major plant components (listed as Pollutant Source and Control Equipment in Schedule 1) operating.

Baghouses

- a. Pressure drop across each baghouse as recorded each shift;
- b. Daily observations for visible emissions; and
- c. One set of opacity readings (the average of any 24 consecutive opacity observations taken at 15 second intervals) as recorded by a trained observer, during all occasions of visible emissions, for each baghouse stack;
- d. The cause of the visible emissions; and
- e. Any corrective action taken.

Straw Dryer System

The following information shall be provided for each dryer individually:

- a. Dryer inlet and outlet temperatures as recorded hourly.

Dryer Multicyclone System

- a. Daily observations for visible emissions;
- b. One set of opacity readings (the average of any 24 consecutive opacity observations taken at 15 second intervals) as recorded by a trained observer, during all occasions of visible emissions, for the emission stack;
- c. The cause of the visible emissions; and
- d. Any corrective actions taken.

Particle Board Press

- a. Daily observations for visible emissions;
- b. One set of opacity readings (the average of any 24 consecutive opacity observations taken at 15 second intervals) as recorded by a trained observer, during all occasions of visible emissions, for the emission stack; and
- c. The cause of the visible emissions; and
- d. Any corrective actions taken.

Schedule 3
To Environment Act Licence 1911 S2
Point Sources and Emission Control Equipment

Sources	Emission Control Equipment
Source No. 1	No controls

Press Vent	
Source No. 2 Thermal Oil Heater Stack	No controls
Source No. 3 Bale breaking and hammer mill	Cyclones followed by baghouse filter number 803
Source No. 4 Straw refining mill	Baghouse: filter number 804
Source No. 5 Dryer	Multicyclones
Source No. 6 Blender and former	Cyclones followed by baghouse filter number 808
Source No. 7 Pre-trimming saw	Cyclones followed by baghouse filter number 813
Source No. 8 Sanding machine	Cyclones followed by baghouse filter number 815
Source No. 9 Trimming and sizing saw	Cyclones followed by baghouse filter number 819

Schedule 4
To Environment Act Licence 1911 S2
Cost Recovery Guidelines

1. All costs the Department incurs as the result of hiring an independent consultant to conduct stack sampling or other atmospheric emission monitoring for the purpose of determining compliance with the Licence.
2. Travel, lodging, and meal expenditures of Department staff during inspections to audit any emission monitoring required pursuant to the Licence. These costs shall be in accordance with the following table and shall amended from time to time to coincide with amendments made within government.
3. Travel, lodging, and meal expenditures of Department staff related to site inspections to monitor the equipment operating parameters and travel, lodging, and meal expenditures of Department staff, over and above the Department's normal allocation, related to site inspections for the purpose of determining compliance with the Licence. These costs shall be in accordance with the following table and shall amended from time to time to coincide with amendments made within government.

	Effective January 1, 1998	Effective January 1, 1999
Travel	30.4 ¢ per km	31.3 ¢ per km
Breakfast	\$5.00	\$5.15

Lunch	\$6.70	\$6.90
Dinner	\$11.60	\$11.95

4. Over time salary cost of Departmental staff related to auditing the stack emission monitoring conducted pursuant to Clause 11 of this Licence.

As well, costs incurred by Department staff during an environmental accident may be recoverable pursuant to the requirements of The Dangerous Goods Handling and Transportation Act.