Manitoba

Conservation

Environmental Stewardship Division
Environmental Assessment and Licensing Branch
123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5
T 204 945-7100 F 204 945-5229
www.gov.mb.ca/conservation/eal
File: 3741.00

January 8, 2009

Mr. Allan Hambley
Plant Environmental Manager
Louisiana-Pacific Canada Ltd.
Swan Valley OSB
P.O. Box 189
Minitonas, MB R0L 1G0

Dear Mr. Hambley:

Re: Request to Shut Down Regenerative Thermal Oxidizers on an Interim Basis

We have reviewed your request submitted on December 22, 2008 to suspend operation of the dryer and press regenerative thermal oxiders (RTOs) at your Swan Valley OSB Plant. We have concluded that under the proposed interim operating scenario, operation of the RTOs is not required in order to achieve the required air quality criteria. Therefore, you are hereby authorized to suspend operation of the RTOs subject to the requirements of the enclosed Environment Act Licence No. 2861, dated January 8, 2009, issued in accordance with The Environment Act for the continued operation of the Development being an Oriented Strand Board Plant located at E ½ 16-36-25 WPM in the Rural Municipality of Minitonas.

In addition to the enclosed Licence requirements, please be informed that all other federal, provincial and municipal regulations and by-laws must be complied with.

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

If you have any questions regarding this matter, please contact Mr. Ryan Coulter at (204) 945-7023.

Yours truly,

Tracey Braun, M. Sc.
Director
Environment Act

c: Regional Director, Western Region
Don Labossiere, Assistant Regional Director
Public Registries
R.M. of Minitonas

NOTE: Confirmation of Receipt of this Licence No. 2861 *(by the Licencee only)* is required by the Director of Environmental Assessment and Licensing. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by January 13, 2009.

On behalf of LP Canada Ltd. **Date**

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

THE ENVIRONMENT ACT
LOI SUR L'ENVIRONNEMENT

Manitoba

LICENCE

Licence No. / Licence n° 2861

Issue Date / Date de délivrance January 8, 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 10(2) /Conformément au Paragraphe 10(2)

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

LOUISIANA-PACIFIC CANADA LTD.; "the Licencee"

for the continued operation of the Development, being an Oriented Strand Board Plant located on the East half of Section 16, Township 36, Range 25 WPM, excepting that portion taken for the right-of-way of the Canadian National Railway, in the Rural Municipality of Minitonas, pursuant to The Environment Act Proposal submitted on May 5, 1994, and altered on June 28, 1994, September 9, 1994, February 9, 1995, April 25, 1995, October 2, 1995, October 11, 1995, May 14, 1996, and April 21, 1997, and pursuant to the notice of alteration provided on December 22, 2008, and subject to the following specifications, limits, terms and conditions:

PART 1—DEFINITIONS

In this Licence,

"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;

"days" means calendar days unless otherwise indicated;

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

"E-tube" means a trademark wet electrostatic precipitator by Geoenergy International Corporation;

"effluent" means treated wastewater flowing or pumped out of the wastewater treatment lagoon or run-off retention pond;

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

"EPA" means United States Environmental Protection Agency;

"ESP" means electrostatic precipitator;

"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;

"fecal coliform" means aerobic and facultative, Gram-negative, nonspore-forming, rod-shaped bacteria capable of growth at 44.5°C, and associated with fecal matter of warm-blooded animals;

"five-day biochemical oxygen demand" means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within five days at a temperature of 20°C;

"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;

"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;

"high water mark" means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is at the maximum allowable liquid level;

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

"low water mark" means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is discharged;

"MDI" means Diphenyl Methane Diisocyanate;

"MPN Index" means the most probable number of coliform organisms in a given volume of wastewater which, in accordance with statistical theory, would yield the observed test result with the greatest frequency;

"90th percentile" means the statistically derived value that equals to the quantity produced or consumed daily by a component of the Development, that was exceeded on 10 percent of the days that the component of the Development operated in the year;

"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;

"PM_{10}" 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;

"ponding" means the surface retention of water or liquid for a period of time sufficient to allow infiltration of the water or liquid below the soil surface, excluding riprap, to a depth in excess of 10 centimetres;

"primary cell" means the first in a series of cells of the wastewater treatment lagoon system and which is the cell that receives the untreated wastewater;

"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;

"reference level" means the rate, as the average tons per hour, of production or consumption that equals the value of the 90th percentile of the daily production or consumption by a component of the Development over the previous year;

"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;

"RTO" means a regenerative thermal oxidizer;

"secondary cell" means a cell of the wastewater treatment lagoon system which is the cell that receives partially treated wastewater from the primary cell;

"sludge" means accumulated solid material containing large amounts of entrained water, which has separated from wastewater during processing;

"SAR" means sodium absorption ratio;

"sodium absorption ratio" means the dimensionless value where:

$$SAR = \frac{0.043 \times \text{Sodium concentration}}{\sqrt{(0.025)\ \text{Calcium concentration} + (0.04)\ \text{Magnesium concentration}}};$$

"total coliform" means a group of aerobic and facultative anaerobic, Gram-negative, nonspore-forming, rod-shaped bacteria, that ferment lactose with gas and acid formation within 48 hours at 35 ^{o}C, and inhabit predominantly the intestines of man or animals, but are occasionally found elsewhere and include the sub-group of fecal coliform bacteria;

"total particulate matter" means the total of both the condensable and non-condensable 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

"wastewater treatment lagoon" means the component of the Development which consists of an impoundment into which wastewater is discharged for storage and treatment by natural oxidation.

PART 2—GENERAL REQUIREMENTS

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 and 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 or by a laboratory acceptable to the Director; and
   (e) report the results to the Director within 60 days of the samples being taken.

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 participate on a Community Liaison Committee established by the Director for the purpose of facilitating the exchange of information between the residents of the Swan River Valley and the Licencee, and shall, as deemed necessary by the Director, provide the Community Liaison Committee with information relating to the construction, operation and monitoring activities and such other matters authorized by this Licence including proposed amendments to operating, monitoring, or disposal plans.

8. 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 Minitonas, and the Village of Minitonas:
   (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.

9. The Licencee shall implement the emergency contingency plan, approved on July 4, 1995, as required. 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.

10. The Licencee shall maintain the financial assurance plan, approved on April 28, 1995. 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.

11. The Licencee shall provide satisfactory written evidence of the financial assurance described in Clause 10 of this Licence, as requested by the Director.

12. The Licencee shall ensure that the roads located on the property on which the Development is situated, plant compound and log yard are maintained in a manner so as to prevent the release of fugitive dust emissions from the said roads, plant compound and log yard beyond the boundary of the property on which the Development is situated.

PART 3—MONITORING AND REPORTING

13. The Licencee shall:
    (a) conduct stack emission monitoring for each component listed in Schedule 4 attached to this Licence, in accordance with the methods listed in Schedule 4 unless otherwise approved in advance;
    (b) commence the stack emission monitoring between May 1, 1998, and October 1, 1998;
    (c) shall repeat the stack emission monitoring once every two years thereafter; and
    (d) 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 4. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

14. The Licencee shall, for the monitoring outlined in Clause 13 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.

15. The Licencee shall conduct a wastewater treatment lagoon effluent monitoring program and the monitoring program shall, unless otherwise approved in advance:
    (a) continue for such a period of time as is required for 5 separate discharge events to occur;
    (b) include the collection of one grab sample of effluent on the first day and every other day thereafter for:
        (i) the duration of the effluent discharge; or
        (ii) until 15 samples are so collected;
    (c) include the analyses of the grab samples collected for: five-day biochemical oxygen demand, fecal coliform content, total coliform content, electrical conductivity, sodium, calcium, and magnesium;
    (d) include the determination of the SAR of the grab samples collected; and
    (e) determine the environmental impact associated with the release of the wastewater treatment lagoon effluent characterized by the determined SAR.

16. The Licencee shall submit, for approval, proposed amendments to the normal operating range, as recorded in the *Normal Operating Range Report* dated September 26, 1997, for any component of the Development listed in Schedule 5.

17. The Licencee shall:
    (a) record and retain the record of the operating parameter information listed in Schedule 5 of this Licence, for a period not less that five (5) years, unless otherwise approved in advance;
    (b) make the records of the operating parameter information listed in Schedule 5 of this Licence, available to an Environment Officer upon request; and

(c) shall, upon request of the Director, prepare and make a copy available to the Director a report of the operating parameter information listed in Schedule 5 of this Licence.

The Licencee may submit, for approval, proposed amendments to Schedule 5. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

18. The Licencee shall continue implementation of the following monitoring plans:
    (a) an ambient air quality monitoring plan and meteorological monitoring station, as outlined in Schedule 1 attached to this Licence, at monitoring site locations approved in advance;
    (b) an ambient surface water quality monitoring plan as outlined in Schedule 2 attached to this Licence; and
    (c) a groundwater monitoring plan as outlined in Schedule 3 attached to this Licence.

    The Licencee may submit, for approval, proposed amendments to the ambient air quality, ambient surface water quality or the groundwater monitoring plans. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

19. The Licencee shall implement the continuing flora and fauna study, approved on March 24, 1997, in a manner and within the time frames specified in the Approval. The Licencee may submit, for approval, proposed amendments to the study. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

20. The Licencee shall conduct detailed inspection and maintenance of emission control and monitoring equipment according to the Inspection and Maintenance for Emission Control and Monitoring Equipment Plan approved on November 17, 1995, and shall take action to ensure that all pollutant control and monitoring equipment operate in accordance with design specifications. 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.

21. The Licencee shall provide, at the request of the Director, sampling facilities at designated point source stacks. The facilities shall include proper access, personnel safety features, power supply, and sampling ports, as deemed necessary by the Director and other features as may be specified by the Director.

22. The Licencee shall be responsible for payment of costs incurred by the Director or on his behalf, deemed by the Director to be necessary for the purpose of:
    (a) monitoring any pollutants for which a limit is prescribed pursuant to Part 6 of this Licence;
    (b) reviewing the Licencee's obligation to monitor pursuant to Clause 13 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.

PART 4—SOLID WASTES MANAGEMENT

23. The Licencee shall:
    (a) segregate wood wastes containing resin or other foreign material, including but not limited to wood wastes used to clean-up resin or petroleum product spills, floor sweepings, reject OSB, or reject strand after the blenders, from wood wastes not containing resin or other foreign material;
    (b) store the wood wastes containing resin or other foreign material in a manner so as to prevent the contamination of groundwater;
    (c) install and maintain a fence, or other approved barrier, around the storage area for the wood wastes containing resin or other foreign material;
    (d) provide signage identifying the material for special handling and disposal; and
    (e) dispose of all wood wastes containing resin or other foreign material in a manner approved in advance.

Ash

24. The Licencee shall maintain the ash collection, conveyance, storage and transfer facilities in such a manner so as to prevent:
    (a) the contamination of surface water or groundwater;
    (b) the release of fugitive dust emissions from the ash handling facilities beyond the boundary of the property on which the Development is situated; or
    (c) the release of hot ash to nearby combustible materials.

25. The Licencee shall dispose of all ash in an approved manner. The Licencee may, submit, for approval, proposed amendments to the disposal method. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

Blender Wastes

26. The Licencee shall maintain the blender waste collection, conveyance, and storage facilities in such a manner so 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.

27. The Licencee shall, unless otherwise approved in advance, dispose of all blender waste by incineration in the thermal oil heater system.

Excess Bark and Waste Wood Fines

28. The Licencee shall maintain the excess bark and wood fines collection, conveyance, and storage facilities in such a manner so as to prevent:
    (a) the contamination of groundwater;
    (b) the release of fugitive dust emissions from the excess bark and wood fines handling facilities beyond the boundary of the property on which the Development is situated; or
    (c) combustion of the excess bark or wood fines while being handled or in storage.

29. The Licencee shall dispose of all wood wastes in an approved manner. The Licencee may submit, for approval, proposed amendments to the disposal method. The Licencee shall implement any amendments approved, in a manner and within the time frames specified in the Approval.

Domestic Solid Waste

30. The Licencee shall ensure that all domestic and office solid wastes that are not recycled are disposed at a waste disposal ground approved pursuant to Manitoba Regulation 150/91.

PART 5—LIQUID WASTES MANAGEMENT

Run-off Retention Pond

31. The Licencee shall not discharge wastewater from the run-off retention pond without prior approval and shall only discharge wastewater from the run-off retention pond in accordance with any instructions issued in the Approval.

32. The Licencee shall maintain the raw log storage area, in a manner acceptable to the Director, with materials and at such slopes so as to prevent ponding and to direct all the runoff water to the runoff collection ditch network.

33. The Licencee shall maintain, in a manner acceptable to the Director, the runoff collection ditch network at such slopes so as to prevent ponding and that directs all the runoff water to the runoff retention pond.

Wastewater Treatment Lagoon

34. The Licencee shall direct all sewage generated at the Development toward the wastewater treatment lagoon or other approved sewage treatment facilities.

35. The Licencee shall ensure that the following substances are not discharged to the wastewater collection system or the wastewater treatment lagoon:
    (a) hazardous wastes;
    (b) plant and equipment wash water;
    (c) fire control water; or
    (d) water treatment wastewater.

36. The Licencee shall operate and maintain the wastewater treatment lagoon in such a manner that:
    (a) the organic loading on the primary cell, as indicated by the five-day biochemical oxygen demand, is not in excess of 56 kilograms per hectare per day; and
    (b) the depth of liquid in the primary cell or secondary cell does not exceed 1.5 metres.

37. The Licencee shall install and maintain a fence around the wastewater treatment lagoon to restrict access.

38. The Licencee shall ensure that if, in the opinion of the Director, significant erosion of a wastewater treatment lagoon dyke occurs, riprap shall be placed on the interior dyke surfaces from 0.6 metres above the high water mark to 0.6 metres below the low water mark to protect the dykes from wave action.

39. The Licencee shall provide and maintain a vegetation cover on the dykes of the wastewater treatment lagoon and shall regulate the growth of the vegetation on the dykes so that the height of the vegetation does not exceed 0.3 metres.

40. The Licencee shall not discharge effluent from the wastewater treatment lagoon:
    (a) where the organic content of the effluent, as indicated by the five-day biochemical oxygen demand, is in excess of 30 milligrams per litre;
    (b) where the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;
    (c) where the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample;
    (d) between the 1st day of October of any year and the 15th day of May of the following year; or
    (e) where the SAR is in excess of the limit, which limit shall be prescribed by the Director upon completion of a review of the monitoring program results and the environmental impact determined pursuant to Clause 15 of this Licence.

41. The Licencee shall ensure that all effluent is disposed of by spray irrigation onto land owned by or under the control of the Licencee and that:
    (a) effluent is only discharged to irrigate:
        (i) actively growing cereal, forage or oil seed crops;
        (ii) grasslands which will not be utilized for grazing:
            A) by dairy cattle for at least 30 days after effluent is applied; or
            B) by livestock other than dairy cattle for at least seven days after effluent is applied; or
        (iii) treed lands;
    (b) after agriculture crops are irrigated, harvesting of the crops does not take place for at least seven days;
    (c) if corn has been grown, it is used solely for making silage;
    (d) for at least 8 continuous hours in every 24-hour period, no effluent is applied to the particular lands; and
    (e) if ponding or surface runoff occurs during application the gross depth of effluent applied during any application of effluent shall be reduced so that ponding or surface runoff does not occur.

42. The Licencee shall not discharge effluent, by spray irrigation:
    (a) within 300 metres of any dwelling not owned or lawfully controlled by the Licencee;
    (b) within 100 metres of any surface watercourse or groundwater well not protected from effluent runoff; or
    (c) within 100 metres of any adjoining property boundary,
    existing as of October 31, 1997.

PART 6—ATMOSPHERIC EMISSION MANAGEMENT

43. The Licencee shall not emit total particulate matter from:
    (a) any source of emission within the Development 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) 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.

44. The Licencee shall not cause or permit a noise nuisance to be created as a result of the construction, operation, or alteration of the facility, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.

45. The Licencee shall not cause or permit an odour nuisance to be created as a result of the construction, operation, or alteration of the facility, and shall take such steps as the Director may require to eliminate or mitigate an odour nuisance.

46. The Licencee shall not emit any pollutant from any pollutant source listed in Schedule 6 of this Licence other than through the corresponding control equipment listed in Schedule 6 of this Licence, unless otherwise approved in advance.

Baghouses

47. The Licencee shall not emit pollutants from the Development such that any pollutant from the following sources exceeds the limit value listed, as determined pursuant to the reference sampling methods set out in Schedule 7 of this Licence:

	Pollutant Source	Pollutant	Limit (grams per second)
(a)	BH1 Trim Saws:	TPM	0.15
(b)	BH2 Formers:	TPM	0.09
		Phenol	0.30
(c)	BH3 Raw fuel storage bin:	TPM	0.09
(d)	BH4 Sander dust:	TPM	0.11
(e)	BH5 Flying cut-off saw:	TPM	0.13
(f)	BH6 Sander Dust:	TPM	0.11

Thermal Oil Heater System

48. The Licencee shall not emit pollutants from the Development such that any pollutant from the following source exceeds the limit value listed, as determined pursuant to the reference sampling methods set out in Schedule 7 of this Licence:

	Pollutant Source	Pollutant	Limit (grams per second)
(a)	Thermal oil heater ESP	nitrogen oxides	5.30
		VOC	1.41
		phenol	0.4
		benzene	0.0066
		TPM	2.18

Wood Strand Dryers

49. The Licencee shall not allow the inlet temperature of the wood strand dryers to exceed 1100 degrees Fahrenheit.

50. The Licencee shall not emit pollutants from the Development such that any pollutant from the following sources exceeds the limit value listed, as determined pursuant to the reference sampling methods set out in Schedule 7 of this Licence:

	Pollutant Source	Pollutant	Limit (grams per second)
(a)	Combined Dryer RTO stacks	nitrogen oxides	5.3
		VOC	20.96
		phenol	0.5
		TPM	5.14
		formaldehyde	2.0
		benzene	0.08
		hydrogen cyanide	0.4
(b)	Combined Dryer E-tubes	nitrogen oxides	5.3
		VOC	20.96
		phenol	0.5
		TPM	5.14
		formaldehyde	2.0
		benzene	0.08
		hydrogen cyanide	0.4

51. The Licencee shall not emit pollutants from a wood strand dryer abort stack unless:
    (a) an emergency situation exists in that wood strand dryer emission train;
    (b) wood strands are not being dried; or
    (c) any other situation the Director approves in advance.

52. The Licencee shall immediately cease operation of any wood strand dryer in the event of a shutdown or a failure of an E-tube emission control system connected to that wood strand dryer.

53. The Licencee shall record each occurrence of shutdown or a failure of a Dryer E-tube, or each occurrence of emissions from the Thermal Oil Heater System emergency stack, compiling the following information:
    (a) date and time of the occurrence;
    (b) time required to shut down the affected component;
    (c) component affected;
    (d) reason for the occurrence;
    (e) action taken to correct the cause of the occurrence and the action taken to prevent the occurrence from repeating;
    (f) date and time of re-start or cessation of emission; and

    and submit that information to the Director, the Rural Municipality of Minitonas, and the Village of Minitonas, within 24 hours of the re-start or cessation of emission or 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.

54. The Licencee shall submit an annual report to the Director summarizing the information compiled in Clause 8 and Clause 53 of this Licence over the previous calendar year, not later than March 1 of each year.

55. The Licencee shall ensure that the sulfur content of the fuel oil used to fire the backup thermal oil or the wood strand dryers does not exceed 0.05 % by weight.

Oriented Strand Board Press

56. The Licencee shall not emit pollutants from the Development such that any pollutant from the following sources exceeds the limit value listed, as determined pursuant to the reference sampling methods set out in Schedule 7 of this Licence:

	Pollutant Source	Pollutant	Limit (grams per second)
(a)	Press RTO stack	nitrogen oxides	1.5
		VOC	2.78
		phenol	0.7
		TPM	2.10
		formaldehyde	1.1
		benzene	0.0197
		MDI	0.089

57. The Licencee shall, where the emission of nitrogen oxides from any pollutant source exceeds the limit prescribed in Clauses 51 or 57 respecting the rate of nitrogen oxide emissions, not emit nitrogen oxides from the three regenerative thermal oxidizers where the total emission exceeds 6.8 grams per second.

58. The Director may impose such additional specifications, limits, terms, or conditions deemed necessary for effective environmental management in response to the results of monitoring obligations imposed on the Licencee by this Licence.

REVIEW AND REVOCATION

A. This Licence replaces Licence No. 1900 S4 which is hereby rescinded.

B. If in the opinion of the Director, the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms or conditions set out in this Licence, the Director may, temporarily or permanently, revoke this Licence.

C. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions set out in this Licence, the Director may require the filing of a new proposal pursuant to the Environment Act.

D. This Licence will be reviewed by the Director prior to June 1, 2009, at which time the Director may alter the terms and conditions of this Licence.

Tracey Braun

Tracey Braun, M.Sc.
Director
Environment Act

File No.: 3741.00

Schedule 1
to
Environment Act Licence No 2861
Ambient Air Quality Monitoring Plan

Table 1.1 Variables and Methods for Analysis and Monitoring Frequency

Pollutant	Averaging Period	Sampling Frequency	Type of Sampler	Reference Sampling Method[2]
Total Suspended Particulate (TSP)	24-hour	3-day cycle	High Volume Sampler (Hi-Vol)	EPS 1-AP-73-2
Particulate Matter less than 10 μm in diameter (PM_{10})	24-hour	3-day cycle	Hi-Vol with PM_{10} head	40 CFR Part 50 Appendix J
Formaldehyde (HCHO)	1-hour	6-day cycle[1]	2,4-Dinitrophenyl-hydrazine Cartridge	EPA Method TO-11
Nitrogen Oxides (NO_x)	1-hour, 24-hour	continuous	Chemiluminescent Analyzer	40 CFR Part 50 Appendix F
Volatile Organic Compounds VOCs (total) (includes benzene)	24-hour	6-day cycle[1]	Summa Canister	EPA Method TO-14
Phenol	24-hour	quarterly[3]	midget impingers containing 0.1N NaOH	EPA Method TO-8
Diphenyl Methane Diisocyanate (MDI)	24-hour	quarterly[3]	Filters containing 1-(2-methoxyphenyl) piperazine	ICI Method I1024
Hydrogen Cyanide (HCN)	24-hour	quarterly[3]	Solid sorbent tube (soda lime)	NIOSH 6010
Ozone (O_3)	1-hour, 24-hour	quarterly	UV photometry	40 CFR Part 50 Appendix D

[1] the initial 6-day cycle shall be decreased to 3-day cycle as the Director prescribes.
[2] or an alternative method approved by the Director.
[3] sampling for these variables may be discontinued as the Director prescribes.
Reporting Requirement: Within 60 days of the end of each quarterly sample collection.

Table 1.2 Meteorological Station

Parameter	Comment
location of station	· on site of proposed OSB plant or located with baseline ambient air monitoring station
siting criteria	· accuracy of the data collected should not be influenced by outside factors such as buildings, trees, towers, or other structures · if any obstacles exist in the area, locate the sampler at least 10 times the height of the obstacle away from the obstacle · if located on building, height of sampler should be twice building height above roof
station requirements	· availability of site · accessibility of site · availability of electrical power · security from vandalism
parameters	· wind speed · wind direction · temperature

Schedule 2
to
Environment Act Licence No 2861
Ambient Surface Water Quality Monitoring Plan

Table 2.1 Monitoring Site Locations and Frequency.

Stream	Location	Sampling Method	Frequency
Sinclair River	5 miles north of PTH 10 on Provincial Road 268 (upstream of Swinowski Drain)	Grab	Monthly[1], when flow is present
Sinclair River	6 miles north of PTH 10, approximately 1.5 miles west of Provincial Road 268 (downstream of Swinowski Drain)	Grab	Monthly[1], when flow is present
Surface Drain along west side of plant site	Northeast corner of plant site (downstream of property)	Grab	Weekly[2], when flow is present
Surface Drain along west side of plant site	south side of plant site (upstream of property)	Grab	Weekly[2], when flow is present

[1] monthly means at an interval between sample collection events of not less than 21 days and not greater than 35 days

[2] weekly means at an interval between sample collection events of not less than 5 days and not greater than 7 days

Table 2.2 Water Quality Variables for Analysis

Dissolved Oxygen	Total Organic Carbon	Turbidity
Fecal Coliform (MPN)	Total Cyanide	Total Phenols
Colour (true)	Total Suspended Solids	pH
Dissolved Organic Carbon	Total Dissolved Solids	Conductivity
	Total Solids	

Schedule 3
to
Environment Act Licence No 2861
Ground Water Monitoring Plan

Table 3.1 Monitoring Site Locations and Frequency.

Well[1]	Location	Frequency
LP1	North of railway spur in the South-east corner of property (as shown on Figure 3.1)	Semi-annually[2]
LP2	North-west corner of ash storage (as shown on Figure 3.1)	Semi-annually[2]
LP3	Center of log yard (as shown on Figure 3.1)	Semi-annually[2]
LP4	Centre of the North boundary of log yard (as shown on Figure 3.1)	Semi-annually[2]
LP5	North-east corner of log yard (as shown on Figure 3.1)	Semi-annually[2]
LP6	Centre of the East boundary of log yard (as shown on Figure 3.1)	Semi-annually[2]
LP7	North-east corner of property (as shown on Figure 3.1)	Semi-annually[2]
K1	Existing domestic well located in the South-west corner of the South-west quarter of section 16-36-25W	Semi-annually[2]

[1] As indicated on attached Figure 3.1

[2] Semi-annually means at an interval of not less than 150 days and not greater than 210 days.

Table 3.2 Water Quality Variables for Analysis

Fecal Coliform (MPN)	Total Organic Carbon	Total Phenols
Colour (true)	Total Cyanide	pH
Dissolved Organic Carbon	Total Dissolved Solids	Conductivity
Nitrate-nitrite nitrogen		

Additional Information: Elevation of water table for each well except K1.

Commencement Date: Upon issuance of this stage of the Licence or at such later date as may be approved in advance by the Director.

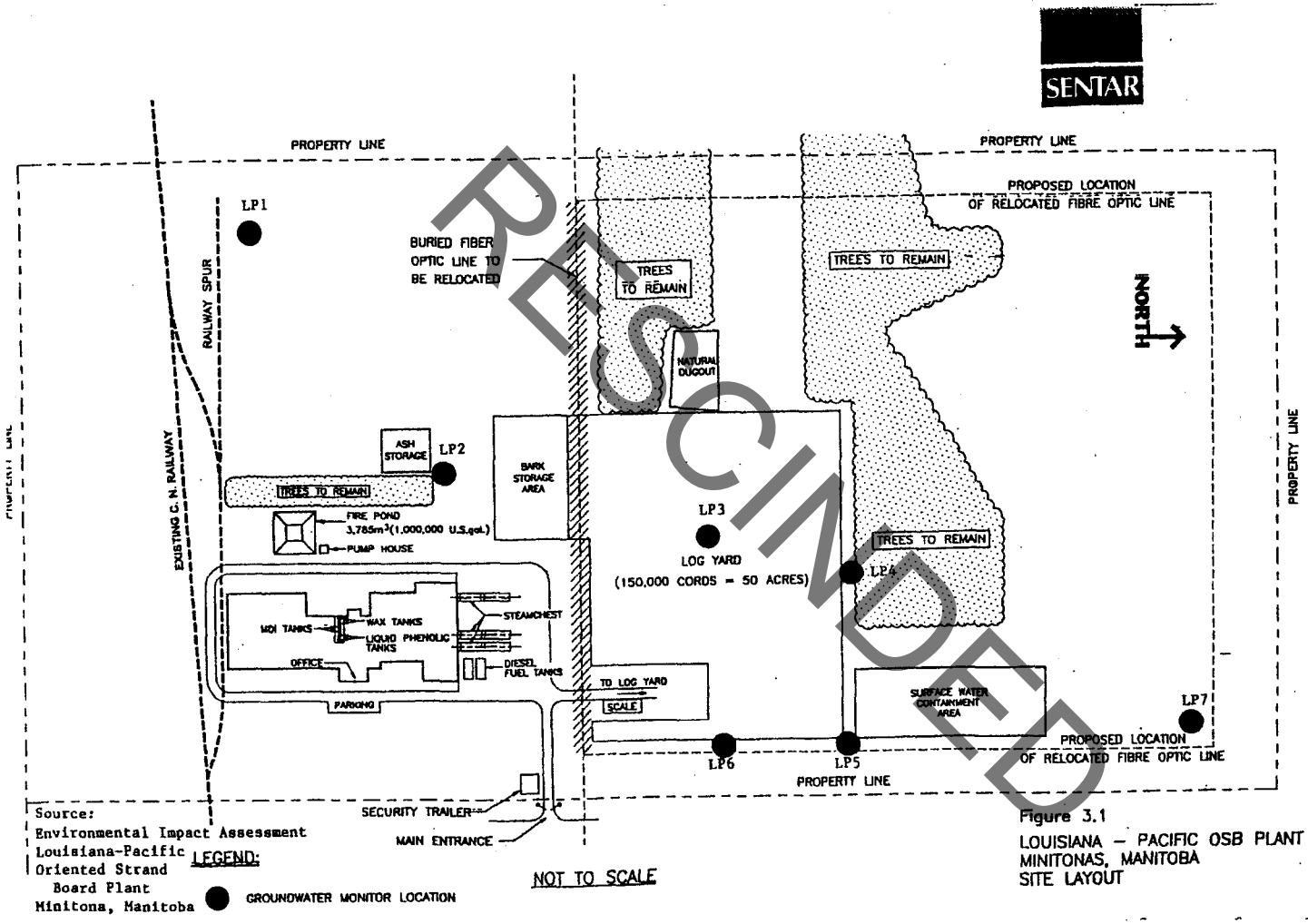

Figure 3.1
LOUISIANA – PACIFIC OSB PLANT
MINITONAS, MANITOBA
SITE LAYOUT

Schedule 4
to
Environment Act Licence No 2861
Emission Monitoring Plan

Table 4.1 Emission Monitoring Components, Locations, Production Level and Variables for Analysis

(a) Component The RTO[2] stack serving one pair Dryers and the RTO stack serving the Press vent

Locations Emission stacks

Minimum Production Levels

Dryer: Reference Level for dry strand produced and corrected to a 6% moisture content, per dryer.

Press: Reference Level for finished product.

Variables for Analysis:	**Reference Sampling Method[1]**
Acetaldehyde Acrolein Formaldehyde	EPA Method 0011
Phenol	EPA Method 0010
Benzene	EPA Method 0030
Diphenyl Methane Diisocyanate[4]	Draft EPA Method 207
Total Volatile Organic Compounds	EPA Method 25A
PM_{10}[3]	EPA Method 201 or 201A, and- 202
Particulate Matter (non-condensable)	EPA Method 5
Particulate Matter (condensable)	EPA Method 202
Hydrogen cyanide	EPA Method 5 (add dilute NaOH to one impinger to trap HCN)
Nitrogen oxides	EPA Method 7C, 7D, or 7E

(b) Component Thermal Oil Heater ESP[2]

Minimum Production Level

Thermal Oil Heater: Reference Level for dry fuel consumed.

Variables for Analysis:	**Reference Sampling Method[1]**
Acetaldehyde Formaldehyde	EPA Method 0011
Benzene	EPA Method 0030
Total Volatile Organic Compounds	EPA Method 25A
PM_{10}[3]	EPA Method 201 or 201A, and- 202
Particulate Matter (non-condensable)	EPA Method 5
Particulate Matter (condensable)	EPA Method 202
Hydrogen cyanide	EPA Method 5 (add dilute NaOH to one impinger to trap HCN)
Nitrogen oxides	EPA Method 7C, 7D, or 7E

(c) Component Trim Saw Baghouse and Flying Saw Baghouse[2]

Minimum Production Levels

Trim Saw: Equal to the Press Reference Level.

Flying Saw: Equal to the Press Reference Level.

Variables for Analysis:	**Reference Sampling Method[1]**
PM_{10}[3]	EPA Method 201 or 201A, and- 202
Particulate Matter (non-condensable)	EPA Method 5
Particulate Matter (condensable)	EPA Method 202

(d) Component Formers Baghouse[2]

Minimum Production Levels

Formers and Blenders: producing at least feedstock sufficient to maintain Press Reference Level.

Variables for Analysis:	**Reference Sampling Method[1]**
Formaldehyde	EPA Method 0011
PM_{10}[3]	EPA Method 201 or 201A, and- 202
Particulate Matter (non-condensable)	EPA Method 5
Particulate Matter (condensable)	EPA Method 202
Diphenyl Methane Diisocyanate	Draft EPA Method 207
Phenol	EPA Method 0010

[1] or an alternative method approved by the Director.

[2]Operating parameters: each component listed above shall be operated within the normal operating range reported or amended pursuant to Clause 16 at the time of the emission monitoring.

[3]unless all particulate matter is considered as PM_{10}

[4]for press vent only.

Schedule 5
to
Environment Act Licence No 2861
Operating Parameters

General Plant

a) Daily production recorded as tons 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 6) operating; and
d) The sulfur content (% by weight) for each shipment of fuel oil received as determined by means of the most current ASTM method or by supplier guaranteed sulfur content.

Baghouses

a) Pressure drop across each baghouse as recorded each shift;
b) Daily observations for visual 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 visual emissions, for each baghouse stack.

Thermal Oil Heater System

a) Daily fuel source and usage;
b) Daily ESP electrostatic field voltage as recorded hourly;
c) Daily ESP electrostatic field current as recorded hourly;
d) Daily ESP spark rate as recorded every two hours;
e) Any corrective actions taken.

Wood Strand Dryer System

The following information shall be provided for each component individually:
Dryers

a) Daily fuel source and usage; and
b) Dryer inlet and outlet temperatures as recorded hourly.

E-Tube ESP

a) Quench chamber inlet temperature (if different from Dryer outlet temperature) and the quench chamber outlet temperature;
b) Daily ESP electrostatic field voltage as recorded every two hours;
c) Daily ESP electrostatic field current as recorded every two hours;
d) Daily ESP spark rate as recorded every two hours;
e) Any corrective actions taken.

Schedule 6
to
Environment Act Licence No 2861
Air Pollution Control Equipment and Emission Stack Heights

Table 6.1

Pollutant Source	Control Equipment	Height
Thermal oil heater:	ESP[1]	30.5 metres
Thermal oil heater by-pass:	none	22.9 metres
Standby Thermal oil heater:	none	24.4 metres
Dryers 1 and 2:	E-tube[2]	30.5 metres
Dryers 1 and 2 abort stack:	E-tube[2]	22.9 metres
Dryers 3 and 4:	E-tube[2]	30.5 metres
Dryers 3 and 4 abort stack:	E-tube[2]	22.9 metres
Trim Saws:	Baghouse	22.4 metres
Formers:	Baghouse	25.4 metres
Raw fuel storage bin:	Baghouse	23.9 metres
Sander dust:	Baghouse	22.4 metres
Flying cut-off saw:	Baghouse	25.5 metres
Sander Dust:	Baghouse	22.4 metres

[1] Electrostatic Precipitator
[2] Wet Electrostatic Precipitator Trade Mark by Geoenergy International Corporation

Schedule 7
to
Environment Act Licence No 2861
Compliance Monitoring Reference Sampling Methods

Table 7.1

Variables for Analysis:	Reference Sampling Method[1]
Formaldehyde	EPA Method 0011
Benzene	EPA Method 0030
Diphenyl Methane Diisocyanate	Draft EPA Method 207
Volatile Organic Compounds	EPA Method 25A
Total Particulate Matter	EPA Method 5 (non-condensable portion) EPA Method 202 (condensable portion)
Hydrogen cyanide	EPA Method 5 (add dilute NaOH to one impinger to trap HCN)
Nitrogen oxides	EPA Method 7C, 7D, or 7E
Phenol	EPA Method 0010
Opacity	EPA Method 9 or Alternative Method 1

[1] latest published Reference Method or an alternative method approved by the Director.