AIR EMISSION PERMIT NO. 07500019- 005

IS ISSUED TO

Louisiana-Pacific Corporation

LOUISIANA-PACIFIC CORP - TWO HARBORS
711 25th Avenue
Two Harbors, Lake County, MN 55616

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date	Issuance Date	Action No.
Total Facility Operating Permit	04/13/1995	06/14/1999	001
Major Amendment	08/30/2001	03/29/2002	002
Major Amendment	01/07/2004	06/22/2004	003
Major Amendment	11/24/2004	03/03/2005	004
Part 70 Permit - Reiss	12/15/2003	See below	005

This permit authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Pt 70/Limits to Avoid NSR/Limits to Avoid Major Source Status under 40 CFR Part 63

Issue Date: **June 5, 2007**

Expiration: June 5, 2012
Title I Conditions do not expire.

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651) 296-6300
Outside Metro Area	1-800-657-3864
TTY	(651) 282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

The Louisiana-Pacific facility in Two Harbors, Minnesota is an oriented strand board manufacturing facility that produces structural panel used in various construction applications. This facility is situated on approximately 80 acres located in the Two Harbors Industrial Park and is identified by the Standard Industrial Classification Code 2493.

On May 18, 1984, the plant was issued its initial air emission facility permit to operate. In 1996 the total facility permit was revised to account for the addition of a Regenerative Thermal Oxidizer (RTO). U.S. Environmental Protection Agency (EPA) issued a Consent Decree to Louisiana-Pacific Corporation that required the Two Harbors oriented strand board plant to install an RTO. The Title V Air Permit Application was submitted March 1995. The facility is identified by the Standard Industrial Classification Code 2493.

The air emission units that exist at this plant consist of a rotary wood wafer dryer, two thermal oil heaters, one board press, twenty-two natural gas fired paint drying ovens, painting operations, and wood waste handling operations.

The rotary wood wafer dryer exhaust is controlled by a Wet Electrostatic Precipitator (WESP) and the RTO. One thermal oil heater is controlled by a cyclone and a fabric filter. The second thermal oil heater, which is the back-up unit, is fueled by natural gas only and is not equipped with any control equipment. The board press emissions are partially captured and controlled through the wafer dryer, the WESP and the RTO. Emissions generated by the paint drying ovens are either controlled by the RTO or are uncontrolled. Particulate emissions from wood waste handling are controlled by fabric filters.

PERMIT ACTION 002 (MAJOR AMENDMENT)

This permit amendment eliminated the requirement for the facility to perform full computer dispersion modeling. It is current MPCA policy to require full dispersion modeling for PM_{10}, SO_2, or NO_x, if a facility has both potential and actual emissions PM_{10}, SO2, or NO_x provided actual emissions exceed either 100 tons/year for PM_{10}, 250 tons/year of SO_2, or 1000 tons/year of NO_x.

Though Louisiana Pacific's potential emissions exceed 100 tons for NO_x, and PM_{10}, actual emissions for all pollutants are less than 100 tons.

PERMIT ACTION 003 (MPCA-initiated MAJOR AMENDMENT)

This permit amendment was an MPCA-initiated amendment under Minn. R. 7007.1600, subp. 1(D). It incorporates a fuel throughput limit for EU002 imposed on the Facility under the performance testing rules (Minn. R. 7017.2025, subp. 3).

PERMIT ACTION 004 (MPCA-initiated MAJOR AMENDMENT)

This permit amendment was an MPCA-initiated amendment under Minn. R. 7007.1600, subp. 1(D). It incorporates a fuel throughput limit of 3270 lb/hr bark and wood waste for EU002 imposed on the Facility under the performance testing rules (Minn. R. 7017.2025, subp. 3).

PERMIT ACTION 005 (Reissuance)

Changes made with this reissuance include the addition of federally enforceable requirements at the board press vented platens system to demonstrate compliance with emissions levels that, along with other existing emissions controls, will render the facility a minor source of hazardous air emissions prior to the effective compliance date of an otherwise applicable major source NESHAP standard under 40 CFR Part 63.

Also included in this reissuance are the incorporation of minor or administrative amendments and an equipment notification made during the course of the previous permit term. These amendments are as follows:

- March 2001 administrative amendment to monitor RTO temperature and air flow rate on an hourly average pursuant to the Consent Decree with EPA.
- October 2002 minor amendment to install vented platens at the board press and capture and control emissions from the platens to the wafer dryer, WESP and RTO.
- July 2004 minor amendment to replace the gas burner on the wafer dryer.
- May 2006 equipment notification to replace Baghouse #3.
- September 2006 minor amendment application for the ZB Fines Recovery Project and the Fingerjointer Project.

Lastly, on November 21, 2006 Louisiana Pacific submitted a request for a moderate amendment. The amendment involved changes to the wood waste handling operations, including the addition of new equipment vented to a new baghouse. The increase in emissions is less than the threshold for minor amendments, but the permit is being treated as a major amendment because the emission limit is being set on the new baghouse as a Title I Condition. Many of the emission units at the facility contain emission limits as Title I Conditions that restrict potential emissions to less than major source levels as defined by 40 CFR § 52.21, Federal New Source Review.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Louisiana-Pacific Corp - Two Harbors

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Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: **Total Facility**

What to do	Why to do it
TOTAL FACILITY LIMIT	hdr
Materials Usage Limitation: Wood type processed at the facility shall be limited to a maximum of 10% by cord softwood (e.g. pine) as a fiscal monthly average. The remainder of the wood processed shall be aspen or other hardwood. The Permittee shall maintain weekly records of the type of wood processed. The records shall include the percent by cord of the amount of softwood processed as well as the total amount of wood processed. This data shall be compiled to determine the fiscal monthly total and average by the 15th of each month for the preceding fiscal month. A fiscal month is normally 35 days for the first month, and 28 days for the second and third months of a given calendar quarter.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
OPERATIONAL REQUIREMENTS	hdr
Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and record keeping specified in the control plan. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020
The Permittee shall comply and upon written request demonstrate compliance, with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, supbs. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0100-7009.0080.
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017

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Performance Test Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
RECORDKEEPING	hdr
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
Beginning September, 2007calculate total facility single HAP emissions and total facility total HAP emissions by the 15th of each month for the previous month. Actual emissions shall follow the methods and procedures in Minn. R. 7019.3030-.3100, including use of the most current version of AP-42 factors where stack emission test results are not availabe. For those sources where HAP emission testing has been performed, SV001, SV005, and SV006, the results of stack emission testing shall be used. The factors to be used are the higher of the average of all tested emission factors that reflect current operations and permitted operating limits or the most recent test result.	Title I Condition: to avoid major source classification under 40 CFR Part 63
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3

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Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

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Subject Item: **GP 001 Rotary Wood Wafer Dryer**

Associated Items: CE 001 Electrostatic Precipitator - High Efficiency

CE 002 Direct Flame Afterburner w/Heat Exchanger

EU 001 Rotary Wood Wafer Dryer

EU 004 Board Press

SV 001 Rotary Wafer Dryer/RTO

SV 002 ESP Bypass

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 9.75 lbs/hour	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 9.75 lbs/hour	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Carbon Monoxide: less than or equal to 30.5 lbs/hour	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 9.04 lbs/hour	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
OPERATING CONDITIONS	hdr
Fuels Allowed: the Permittee shall only burn wood waste (may include board trim), natural gas, or propane in EU 001.	Minn. R. 7007.0800, subp. 2
Vent all emissions to a thermal oxidizer with a VOC and HAP control efficiency of 99% or greater.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21, Minn. R. 7007.3000 and 40 CFR Part 63
Vent all emissions to an electrostatic precipitator with a PM/PM10 collection efficiency of 86% or greater.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
HAP CALCULATIONS	hdr
HAP Calculations: Total and Single HAPs shall be calculated by multiplying production rate by an approved emission factor. The emission factors shall be from approved performance tests for acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde. If emission factors available from testing are not available, and for all other HAPs, AP-42 emission factors shall be used. The Permittee may use other emission factors upon MPCA approval.	Title I Condition: to avoid major source classification under 40 CFR Part 63
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of tons of finished product. This shall be based on written records.	Title I Condition: to avoid major source classification under 40 CFR Part 63; Minn. R. 7007.0800, subp. 4 and 5
POLLUTION CONTROL EQUIPMENT OPERATION AND MAINTENANCE	hdr
Pollution Control Equipment Operation, Monitoring and Record Keeping: the Permittee shall maintain operation of the wet electrostatic precipitator (CE 001) and the regenerative thermal oxidizer (CE 002) associated with GP 001 whenever the dryer or board press are in operation. Once each day, while in operation, the Permittee shall monitor and record whether CE 001 is energized (electric current is being applied to the two T-R sets) and monitor and record the combustion chamber temperature and outlet air flow rate of CE 002 as an hourly average. If CE 001 is not energized or if the combustion chamber temperature of CE 002 is less than the specified limit, or if the RTO outlet air flow rate is greater than the specified limit, take the corrective actions outlined in the O&M plan. Record all corrective actions taken upon completion of the action.	Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5 and 40 CFR Part 64
Temperature: greater than or equal to 1510 degrees F using 1-Hour Average at the Combustion Chamber unless a new minimum temperature is required set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum temperature is required to be set, it will be based on the average temperature recorded during the most recent MPCA approved performance test where compliance for VOC emissions was demonstrated. If the one hour average temperature drops below the minimum temperature limit, the VOC used during that time shall be considered uncontrolled until the minimum temperature limit is once again achieved. This shall be reported as a deviation.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 Minn. R. 7007.3000, and 40 CFR Part 64

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Air Flow Rate: less than or equal to 77780 actual cubic feet/minute on an hourly averate at the outlet of the RTO unless a new maximum air flow rate is required set pursuant to Minn. R. 7017.2025, subp. 3. If a new maximum outlet air flow rate is required to be set it will be based on the average flow rate recorded during the most recent MPCA approved performance test where compliance for VOC and HAP emissions was demonstrated. If the hourly average outlet air flow rate is greater than the limit the VOC and HAP emitted during that time shall be considered uncontrolled until the maximum air flow rate limit is once again achieved. This shall be reported as a deviation.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall maintain a continuous hard copy readout or electronic file of the temperature readings and outlet air flow rates and calculated hourly averages of these parameters.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 Minn. R. 7007.3000, and 40 CFR Part 64
Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
Annual Calibration: The Permittee shall calibrate the temperature monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration. Calibration can include verifying the accuracy through another thermocouple, and may result in replacement of the thermocouple.	Minn. R. 7007.0800, subp. 4, 5, and 14
PERFORMANCE TESTING	hdr
Performance Test: due before end of each 60 months starting 12/05/2005 for PM and PM10 emissions, and for Opacity.	Title I Condition: Minn. R. 7017.2020, subp. 1 and 40 CFR Part 64
Performance Test: due before end of each 60 months starting 12/05/2005 to measure NOx emissions.	Title I Condition: Minn. R. 7017.2020, subp. 1 and 40 CFR Part 64
Performance Test: due before end of each 60 months starting 12/05/2005 to measure CO emissions.	Title I Condition: Minn. R. 7017.2020, subp. 1 and 40 CFR Part 64
Performance Test: due before end of each 60 months starting 12/05/2005 to measure VOC emissions.	Title I Condition: Minn. R. 7017.2020, subp. 1 and 40 CFR Part 64
Performance Test: due before end of each calendar 36 months starting 04/26/2004 for HAP emissions. The specific HAPs to be tested are those defined in 40 CFR Section 63.2292 which are acetaldehyde, acrolein, formaldehyde, methanol, phenol and propionaldehyde.	Title I Condition: to avoid major source classification under 40 CFR Part 63

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Subject Item: **GP 002 Spray Coating/Drying Oven Operations**

Associated Items: CE 008 Panel Filter

EU 010 Coating Drying Oven, Lap & Trim

EU 011 Coating Drying Oven, Lap & Trim

EU 012 Coating Drying Oven, Lap & Trim

EU 013 Coating Drying Oven, Lap & Trim

EU 014 Coating Drying Oven, Lap & Trim

EU 015 Coating Drying Oven, Lap & Trim

EU 016 Coating Drying Oven, Lap & Trim

EU 017 Coating Drying Oven, Lap & Trim

EU 018 Coating Drying Oven, Lap & Trim

EU 019 Coating Drying Oven, Lap & Trim

EU 020 Coating Drying Oven, Lap & Trim

EU 021 Coating Drying Oven, Lap & Trim

EU 022 Coating Drying Oven, Lap & Trim

EU 023 Coating Drying Oven, Lap & Trim

EU 024 Coating Drying Oven, Lap & Trim

EU 025 Coating Drying Oven, Lap & Trim

EU 026 Coating Drying Oven, Lap & Trim

EU 027 Coating Drying Oven, Lap & Trim

EU 028 Coating Drying Oven, Lap & Trim

EU 029 Coating Drying Oven, Narrow Trim

EU 034 Unit Spray Booth

SV 001 Rotary Wafer Dryer/RTO

SV 010 Lap Line Ovens Bypass

SV 011 Narrow Trim Line Oven Bypass

SV 016 Unit Spray Booth

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: less than or equal to 20 tons/year using 12-month Rolling Sum	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 20 tons/year using 12-month Rolling Sum	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Volatile Organic Compounds: less than or equal to 100 tons/year using 365-day Rolling Sum	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
OPERATING LIMITS	hdr
Vent all emissions from the spray booth through a panel filter with a capture efficiency of 80% and control efficiency of captured emissions of 92% efficiency.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT	hdr

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Weekly Inspections: Once each week, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a weekly written record of filter inspections.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Part 64
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14, and 40 CFR Part 64
Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14 and 40 CFR Part 64
Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14, and 40 CFR Part 64
RECORDKEEPING	hdr
Record Keeping: the Permittee shall maintain records daily of VOCs and TSP/PM-10 emitted on a monthly 12-month rolling sum basis. These records shall be kept every day. Specific records to be kept are the gallons of paint used per day, the VOC content of the paint, the solids content of the paint, and tons per year on a 12-month rolling sum basis of VOC and TSP/PM-10 emitted. Emissions shall be calculated each month by the 15th of the month according to the following equations:	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Part 64
Calculation of Spray Booth Solids emissions: Epm/pm10 = ESG*[10.2 lb/gal * 0.53 solids *(1-0.45)*(0.8)*(1-0.92)] + ESG*[10.2 lb/gal * 0.53 solids *(1-0.45)* (0.2)] * [1-0.80] where; E = Particulate emissions in pounds. Divide by 2000 to obtain emission in tons. ESG = Edge Seal Gallons used that during the previous month. 10.2 = density of the edge seal paint 0.53 = the percentage of solids in the paint 0.45 = the transfer efficiency of the spray equipment 0.8 = the capture efficiency of the booth 0.92 = the collection efficiency of the filter 0.80 = the building collection efficiency	continued from above
Calculation of Spray Booth and coating Volatile Organic emissions: Evoc = ESG*VOC where: Evoc = VOC emissions in pounds. Divide by 2000 to obtain emissions in tons. ESG = Edge Seal Gallons used during the previous month. VOC = the lb VOC per gallon in the Edge Seal	continued from above
Material Content: VOC, HAPs, and Solids (PM and PM<10 microns) contents in shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier or the product data specification sheet provided by the supplier for each material used. If a material content range is given on the MSDS or data sheet, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5
OPERATIONAL FLEXIBILITY	hdr
The permittee is not required to vent emissions from the paint spraying and drying operations to CE002.	Minn. R. 7007.0800, subp. 2

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **GP 004 Baghouse testing requirements**

Associated Items: EU 005 Wood Waste Handling Operations 1

EU 006 Wood Waste Handling Operations 2

EU 007 Wood Waste Handling Operations 3

EU 035 Wood Waste Handling 4

What to do	Why to do it
Performance Test: due before end of each calendar 60 months starting 12/13/2001 for Particulate Matter and Particulate Matter < 10 microns and for opacity. Two baghouses, from EU 005, 006, EU 007 and 035, shall be tested every 5 years. The baghouses tested shall be the two baghouses not tested in the previous 5 years.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Part 64

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **GP 005 HAP limits**

Associated Items: EU 001 Rotary Wood Wafer Dryer

EU 002 Thermal Oil Heater #1 (31 MMBtu/hr)

EU 004 Board Press

What to do	Why to do it
HAPs - Total: less than or equal to 22.5 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit takes effect September 13, 2007.	Title I Condition: to avoid major source classification under 40 CFR Part 63
Total HAPs Calculations: By the 15th of the month, the Permittee shall calculate and record the 12 month rolling sum Total HAP emissions for the previous 12 month period by summing the monthly Total HAP emissions data for the previous 12 months. The Total HAP emissions shall be calculated by adding Total HAPs from EU 001, EU 002, EU 004 (as described in GP 001, EU 002 and EU 004 in this permit). The limit for the first twelve months shall be calculated as follows: Total HAPs = 3.38 + [(22.5-3.38)/12]* (n-1) where n = number of months	Title I Condition: to avoid major source classification under 40 CFR Part 63
HAP-Single: less than or equal to 9 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit takes effect September 13, 2007.	Title I Condition: to avoid major source classification under 40 CFR Part 63
Single HAPs Calculations: By the 15th of the month, the Permittee shall calculate and record the 12 month rolling sum Single HAP emissions for the previous 12 month period by summing the monthly Single HAP emissions data for the previous 12 months. The Single HAP emissions shall be calculated by adding Single HAPs from EU 001, EU 002, EU 004 (as described in GP 001, EU 002 and EU 004 in this permit). The limit for the first twelve months shall be calculated as follows: Single HAPs = 1.35 + [(9-1.35)/12]* (n-1) where n = number of months	Title I Condition: to avoid major source classification under 40 CFR Part 63

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 002 Thermal Oil Heater #1 (31 MMBtu/hr)**

Associated Items: CE 003 Centrifugal Collector - High Efficiency

CE 004 Fabric Filter - High Temperature, i.e., T>250 Degrees F

GP 005 HAP limits

SV 003 Thermal Oil Heater #1

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
OPERATING LIMITS	hdr
Fuel Usage: less than or equal to 3270 lbs/hour using 12-hour Average (block average) of Fuels Allowed as described in the following requirement. Divide total weight by total operating time in each twelve-hour block. Downtime of 15 or more minutes is not to be included as operating time.	Minn. R. 7017.2025, subp. 3
Fuels Allowed: the Permittee shall only combust the following fuels in EU 002: wood waste (which may include material from the blending system, solids from the drying system removed by CE 001, board trim, and wood fiber from press plate cleaning), on-site generated waste (which may include waste latex paint, used oil, cardboard and paper waste, soiled rags, and combustible absorbent materials from oil, anti-freeze, water-based paint, and water or soy based ink spills). Incremental addition of on-site generated waste fuels shall be done such that combustion conditions are not upset.	Minn. R. 7007.0800, subp. 2
Vent all emissions to a baghouse with a collection efficiency of 99% of PM and PM10. The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
HAP CALCULATIONS	hdr
HAP Calculations: Total and Single HAPs shall be calculated by multiplying production rate by an approved emission factor. AP-42 emission factors shall be used. The Permittee may use other emission factors upon MPCA approval.	Title I Condition: to avoid major source classification under 40 CFR Part 63
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of fuel combusted. This shall be based on written records.	Title I Condition: to avoid major source classification under 40 CFR Part 63; Minn. R. 7007.0800, subp. 4 and 5
POLLUTION CONTROL EQUIPMENT	hdr
Maintain pressure drop across the baghouse between 1 and 13 inches of water column , unless a new range is required to be set pursuant to Minn. R. 7017.2025, subp. 3. If a new range is required to be set, it will be based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 2
Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Minn. R. 7007.0800, subp. 4
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
RECORDKEEPING AND REPORTING	hdr
Record Keeping: the Permittee shall keep records of the type and quantity of fuel combusted in EU 002 based on a 12-hour block average. Divide total weight by total operating time in each twelve-hour block. Downtime of 15 or more minutes is not to be included as operating time.	Minn. R. 7007.0800, subp. 5
PERFORMANCE TESTING	hdr
Performance Test: due before end of each calendar 60 months starting 03/02/2004 to measure total particulate matter and opacity emissions.	Minn. R. 7017.2020. subp. 1

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 003 Thermal Oil Heater #2 (25 MMBtu/hr)**

Associated Items: SV 004 Thermal Oil Heater #2

What to do	Why to do it
Fuels Allowed: the Permittee shall only combust natural gas in EU 003.	Minn. R. 7007.0800, subp. 2
Record Keeping: the Permittee shall maintain records of the amount of natural gas combusted in EU 003 each month the unit is operated.	40 CFR Section 60.48c(g)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 004 Board Press**

Associated Items: GP 001 Rotary Wood Wafer Dryer

GP 005 HAP limits

MR 007 Large Fan Amp Meter

MR 008 Samll Fan Amp. Meter

SV 001 Rotary Wafer Dryer/RTO

SV 005 Board Press

SV 006 Board Press

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 7.03 lbs/hour	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 7.03 lbs/hour	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING CONDITIONS	hdr
Maintain the vented platens system, consisting of equipment to capture gases generated by the board press and routing gases captured by the press platens and fume hood to the wafer dryer for emissions control. A correlation shall be developed between the power meter for the two vented platen fans while press emissions are vented to the wafer dryer by measuring the flow rate to the wafer dryer from the platens and fume hood, along with HAP emissions from SV005 and SV006 during the test. Following the performance testing an application for a major amendment to the permit will be submitted that specifies fan power, and a compliance demonstration method for the power monitoring and measurement.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21, Minn. R. 7007.3000 and 40 CFR Part 63
HAP CALCULATIONS	hdr
HAP Calculations: Total and Single HAPs shall be calculated by multiplying production rate by an approved emission factor. The emission factors shall be from approved performance tests for acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde. If emission factors available from testing are not available, and for all other HAPs, AP-42 emission factors shall be used. The Permittee may use other emission factors upon MPCA approval.	Title I Condition: to avoid major source classification under 40 CFR Part 63
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of tons of finished product from the press. This shall be based on written records.	Title I Condition: to avoid major source classification under 40 CFR Part 63; Minn. R. 7007.0800, subp. 4 and 5
MONITORING	hdr
Monitor power rate from the vented platen fans by motor amperage meters and monitor hours of operation for the board press. As stated above, submit a compliance demonstration plan as a major permit amendment following the performance testing specfied below.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21, Minn. R. 7007.3000 and 40 CFR Part 63, 40 CFR Part 64
PERFORMANCE TESTING	hdr
Performance Test: due before end of each calendar 36 months starting 04/26/2004 HAP emissions. Specific HAPs to be tested are those defined in 40 CFR Section 63.2292 which are acetaldehyde, acrolein, formaldehyde, methanol, phenol, and priopionaldehyde.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21, Minn. R. 7007.3000, and 40 CFR Part 63; Minn. R. 7017.2020. subp. 1
Performance Test: due before end of each 60 months starting 12/05/2005 for Particulate Matter and Particulate Matter less than 10 micron emissions and for opacity.	Title I Condition: to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7017.2020. subp. 1

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 005 Wood Waste Handling Operations 1**

Associated Items: CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Baghouse testing requirements

SV 007 Wood Waste Handling 1

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 4.80 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Particulate Matter < 10 micron: less than or equal to 4.80 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT	hdr
Pollution Control Equipment Requirements: the Permittee shall vent all emissions to a fabric filter with a control efficiency of 99% for PM and PM10.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Visible Emissions: The Permittee shall check the fabric filter stack for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter once each day of operation to verify that it is within manufacturer's specifications. The observer is not required to be Method 9 certified.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000, 40 CFR Part 64
Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission inspection, and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4 and 40 CFR Part 64
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14, and 40 CFR Part 64
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14, and 40 CFR Part 64

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 006 Wood Waste Handling Operations 2**

Associated Items: CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Baghouse testing requirements

SV 008 Wood Waste Handling 2

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 3.08 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Particulate Matter < 10 micron: less than or equal to 3.08 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT	hdr
Pollution Control Equipment Requirements: the Permittee shall vent all emissions to a fabric filter with a control efficiency of 99% for PM and PM10.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Visible Emissions: The Permittee shall check the fabric filter stack for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation to verify that it is within manufacturer's specifications. The observer is not required to be Method 9 certified.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission inspection, and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 007 Wood Waste Handling Operations 3**

Associated Items: CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Baghouse testing requirements

SV 009 Wood Waste Handling 3

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 6.86 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Particulate Matter < 10 micron: less than or equal to 6.86 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT	hdr
Pollution Control Equipment Requirements: the Permittee shall vent all emissions to a fabric filter with a control efficiency of 99% for PM and PM10.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Visible Emissions: The Permittee shall check the fabric filter stack for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation to verify that it is within manufacturer's specifications. The observer is not required to be method 9 certified.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission inspection, and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Subject Item: **EU 035 Wood Waste Handling 4**

Associated Items: CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 004 Baghouse testing requirements

SV 017 Wood Waste Handling 4

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 3.9 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Particulate Matter < 10 micron: less than or equal to 3.9 lbs/hour	Title I Condition: 40 CFR Section 52.21 to remain a non-major source
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT	hdr
Pollution Control Equipment Requirements: the Permittee shall vent all emissions to a fabric filter with a control efficiency of 99% for PM and PM10.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000
MONITORING AND RECORDKEEPING	hdr
Visible Emissions: The Permittee shall check the fabric filter stack for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter once each day of operation to verify that it is within manufacturer's specifications. The observer is not required to be Method 9 certified.	Title I Condition: to avoid major source status under 40 CFR Section 52.21 and Minn. R. 7007.3000, 40 CFR Part 64
Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission inspection, and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subp. 4 and 40 CFR Part 64
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14, and 40 CFR Part 64
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14, and 40 CFR Part 64

TABLE B: SUBMITTALS

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:
- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility

TABLE B: RECURRENT SUBMITTALS

Facility Name: Louisiana-Pacific Corp - Two Harbors

Permit Number: 07500019 - 005

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occured, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL
Facility Name:Louisiana-Pacific Corp - Two Harbors
Permit Number: 07500019-005

Insignificant Activities Required to be Listed

Emission Unit	Insignificant Applicability	Applicable Performance Standard
Natural gas space heaters (2)	Minn. R. 7007.1300(3)(A)	Minn. R. 7011.0510-.0515
Laboratory activities	Minn. R. 7007.1300(3)(G)	
Brazing, soldering, and welding equipment	Minn. R. 7007.1300(3)(H)(3)	Minn. R. 7011.0610
Equipment used for melting wax	Minn. R. 7007.1300(3)(H)(5)	Minn. R. 7011.0610
Fugitive emissions from roads and parking lots	Minn. R. 7007.1300(3)(J)	Minn. R. 7011.0150
Debarking operation	Minn. R. 7007.1300(4)	Minn. R. 7011.0715
Bark Pile	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Wafer Pile	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Ash handling, storage and disposal	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Parts cleaning stations	Minn. R. 7007.1300(4)	
Use of cleaning solvents	Minn. R. 7007.1300(4)	
Organic liquid storage tanks (resin, wax emulsion, low VOC paint, thermal oil)	Minn. R. 7007.1300(4)	
Dry fuel preparation system	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Emergency diesel pump	Minn. R. 7007.1300(4)	Minn. R. 7011.2300
Steam cleaner, gas fired	Minn. R. 7007.1300(4)	Minn. R. 7011.0510-.0515
Steam cleaner, oil fired	Minn. R. 7007.1300(4)	Minn. R. 7011.0510-.0515
Fines Storage Silo Bin Vent	Minn. R. 7007.1300 (3)(I)(2)	Minn. R. 7011.0715
Fines Metering Bin Vent	Minn. R. 7007.1300 (3)(I)(2)	Minn. R. 7011.0715

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 07500019-005

This Technical Support Document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the preliminary determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: **2493**)
Louisiana-Pacific Corporation 711 25th Avenue, PO Box P Two Harbors, MN 55616	711 25th Avenue Two Harbors Lake County
Contact: **Ms. Barbara Hamilton** Phone: **(218) 834-5652**	

1.2. Description of the Facility

The Louisiana-Pacific facility in Two Harbors, Minnesota is an oriented strand board manufacturing facility that produces structural panel used in various construction applications. This facility is situated on approximately 80 acres located in the Two Harbors Industrial Park and is identified by the Standard Industrial Classification Code 2493.

On May 18, 1984, the plant was issued its initial air emission facility permit to install and operate. In 1996 the total facility permit was revised to account for the addition of a Regenerative Thermal Oxidizer (RTO). U.S. Environmental Protection Agency (EPA) issued a Consent Decree to Louisiana-Pacific Corporation that required the Two Harbors oriented strand board plant to install an RTO. The Title V Air Permit Application was submitted March 1995. The facility is identified by the Standard Industrial Classification Code 2493.

The air emission units that exist at this plant consist of a rotary wood wafer dryer, two thermal oil heaters, one board press, twenty-two natural gas fired paint drying ovens, painting operations, and wood waste handling operations.

The rotary wood wafer dryer exhaust is controlled by a Wet Electrostatic Precipitator (WESP) and the RTO. One thermal oil heater is controlled by a cyclone and a fabric filter. The second thermal oil heater, which is the back-up unit, is fueled by natural gas only and is not equipped with any control equipment. The board press emissions are partially captured and controlled through the wafer dryer, the WESP and the RTO. Emissions generated by the paint drying ovens are either controlled by the RTO or are uncontrolled. Particulate emissions from wood waste handling are controlled by fabric filters.

1.3 Description of any Changes Allowed with this Permit Reissuance

This permit incorporates Title I Conditions which limit the facility to a minor source under 40 CFR Part 63. This permit also incorporates insignificant activities required to be listed.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit

PERMIT ACTION 002 (MAJOR AMENDMENT)

This permit amendment eliminated the requirement for the facility to perform full computer dispersion modeling. It is current MPCA policy to require full dispersion modeling for PM_{10}, SO_2, or NO_x if a facility has both potential and actual emissions PM_{10}, SO2, or NO_x provided actual emissions exceed either 100 tons/year for PM_{10}, 250 tons/year of SO_2, or 1000 tons/year of NO_x.

Though Louisiana Pacific's potential emissions exceed 100 tons for NO_x, and PM_{10}, actual emissions for all pollutants are less than 100 tons.

PERMIT ACTION 003 (MPCA-initiated MAJOR AMENDMENT)

This permit amendment was an MPCA-initiated amendment under Minn. R. 7007.1600, subp. 1(D). It incorporates a fuel throughput limit for EU002 imposed on the Facility under the performance testing rules (Minn. R. 7017.2025, subp. 3).

PERMIT ACTION 004 (MPCA-initiated MAJOR AMENDMENT)

This permit amendment was an MPCA-initiated amendment under Minn. R. 7007.1600, subp. 1(D). It incorporates a fuel throughput limit of 3270 lb/hr bark and wood waste for EU002 imposed on the Facility under the performance testing rules (Minn. R. 7017.2025, subp. 3).

PERMIT ACTION 005 (Reissuance)

Changes made with this reissuance include the addition of federally enforceable requirements at the board press vented platens system to demonstrate compliance with emissions levels that, along with other existing emissions controls, will render the facility a minor source of hazardous air emissions prior to the effective compliance date of an otherwise applicable major source NESHAP standard under 40 CFR Part 63.

Also included in this reissuance are the incorporation of minor or administrative amendments and an equipment notification made during the course of the previous permit term. These amendments are as follows:

- March 2001 administrative amendment to monitor RTO temperature and air flow rate on an hourly average pursuant to the Consent Decree with EPA.
- October 2002 minor amendment to install vented platens at the board press and capture and control emissions from the platens to the wafer dryer, WESP and RTO.
- July 2004 minor amendment to replace the gas burner on the wafer dryer.
- May 2006 equipment notification to replace Baghouse #3.
- September 2006 minor amendment applications to install <*specific language is forthcoming).*

Lastly, on November 21, 2006 Louisiana Pacific submitted a request for a moderate amendment. The amendment involved changes to the wood waste handling operations, including the addition of new equipment vented to a new baghouse. The increase in emissions is less than the threshold for minor amendments, but the permit is being treated as a major amendment because the emission limit is being set on the new baghouse as a Title I Condition. Many of the emission units at the facility contain emission limits as Title I Conditions that restrict potential emissions to less than major source levels as defined by 40 CFR Section 52.21, Federal New Source Review.

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary

	PM tpy	PM_{10} tpy	SO_2 tpy	NO_x tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	231	231	4.71	138	237	146	5.94	17.2
Total Facility Actual Emissions (2004)	14.5	8.75	1.17	38.2	76.4	8.90	HAPs not reported in emission inventory	

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		X	
Part 70 Permit Program	X		
Part 63 NESHAP		X	

2. Regulatory and/or Statutory Basis

New Source Review

The permit contains conditions that restrict potential emissions to less than major source levels as defined under the applicable new source review program, 40 CFR § 52.21.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

One natural gas fired thermal oil heater is subject to 40 CFR Part 63, Subp. Dc. That regulation only requires monitoring of fuel input for natural gas fired equipment.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

With the existing permit requirements the facility is a minor source for hazardous air pollutants. Thus, no NESHAPs apply.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- *Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment*
- *Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment*
- *Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment*

CAM Requirements Several of the sources are subject to CAM requirements. They are emission units with potential emissions greater than the Part 70 major source threshold that use control equipment to meet emission limits. Those units are identified below in Table 3.

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
GP 001 Rotary wood wafer dryer	Minn. R. 7011.0610, Title I limits to avoid 40 CFR § 52.21, Minn. R. 7007.3000, and 40 CFR Part 63, 40 CFR Part 64	Minnesota Performance Standards for Direct Heating Equipment, emission limits and requirements to operate control equipment. Also subject to CAM requirements.
GP002 Spray coating and drying	Minn. R. 7011.0715, Title I Conditions to avoid major source classification under 40 CFR § 52.21, and Minn. R. 7007.3000, 40 CFR Part 64	Minnesota Performance Standards for Industrial Process Equipment, and emission limits and control equipment requirements. Also subject to CAM requirements.
EU002 Thermal Oil Heater 1	Minn. R. 7011.0515, Title I Conditions to avoid major source classification under 40 CFR § 52.21, and Minn. R. 7007.3000	Minnesota Performance Standards for Industrial Process Equipment, and emission limits and control equipment requirements
EU 003 Thermal Oil Heater 2	40 CFR Part 60	Federal New Source Performance Standards for Small Industrial, Commercial and Institutional Steam Generating Units
EU 004 Board Press	Minn. R. 7011.0715, Title I Conditions to avoid major source classification under 40 CFR § 52.21, and Minn. R. 7007.3000	Minnesota Performance Standards for Industrial Process Equipment, and emission limits and control equipment requirements.
EU005, 006, 007, EU035 Wood Waste Handling Operations	Minn. R. 7011.0715, Title I Conditions to avoid major source classification under 40 CFR § 52.21, and Minn. R. 7007.3000, 40 CFR Part 64	Minnesota Performance Standards for Industrial Process Equipment, and emission limits and control equipment requirements. Also subject to CAM requirements.

3. Technical Information

Derivation of stack testing frequency:

Emission Unit	Limit	Test Results	Test Frequency
GP001, Rotary Wood Wafer Dryer	PM: 9.75 lb/hr	0.553 (12/05/2005)	Every 5 years
	PM10: 9.75 lb/hr	0.553 (12/05/2005)	Every 5 years
	Opacity: 20%	0% (5/22/96)	Every 5 years
	VOCs: 9.04 lb/hr	0.4 lb/hr (11/12/2002) 0.56 lb/hr (5/12/2003) 0.37 lb/hr (8/27/2003) 1.4 lb/hr (4/26/2004) 0.95 lb/hr (12/05/2005)	Every 5 years
	CO: 30.5 lb/hr	12 lb/hr (11/12/2002) 12.6 lb/hr (5/12/2003) 10.5 lb/hr (8/27/2003) 14 lb/hr (4/26/2004) 17.2 lb/hr (12/05/2005)	Every 5 years
EU002, Konus Thermal Oil Heater	PM: 0.4 lb/mmBtu	0.006 lb/mmBtu (3/4/2003) 0.007 lb/mmBtu (3/2/2004)	Every 5 Years
	Opacity: 20%	0% (3/4/2003) 0% (3/2/2004)	NA
	CO: no limit	0.44 lb/hr (11/12/2002) 0.15 lb/mmBtu (3/2/2004)	NA
	VOC: no limit	0.003 lb/mmBtu (3/2/2004)	NA
	NOx: no limit	0.20 lb/mmBtu	NA
Press Vents	PM: 7.03 lb/hr	0.84 lb/hr (12/05/2005)	Every 5 years
	PM10: 7.03 lb/hr	0.84 lb/hr (12/05/2005)	Every 5 years
	Opacity: 20%	6.3% at north vent and 6.5% at south vent (10/16/96)	Every 5 years
	VOC: no limit	3.1 lb/hr (11/12/2002) 1.1 lb/hr (5/12/2003) SV 5+6 0.82 lb/hr (8/27/2003) SV 5+6 1.4 lb/hr (4/26/2004) SV 5+6 0.83 lb/hr (12/05/2005)	NA
	CO: no limit	0.7 lb/hr (5/12/2003) SV 5+6 0.53 lb/hr (8/27/2003) SV5+6 0.73 lb/hr (4/26/2004) SV 5+6 0.96 lb/hr (12/05/2005)	NA
	NOx: no limit	0.20 lb/hr (12/05/2005)	NA
SV007, No. 1 Baghouse	PM/PM10: 4.8 lb/hr	0.199 lb/hr (12/12/2001)	One baghouse every 5 years
SV008, No. 2 Baghouse	PM/PM10: 3.08 lb/hr	0.255 lb/hr (12/12/2001)	“
SV009, No. 3 Baghouse	PM/PM10: 6.86 lb/hr	0.308 lb/hr (12/12/2001)	“
SV017, No. 4 Baghouse	PM/PM10: 3.9 lb/hr	Not tested	Initial test and then frequency

			determined

3.1 **Calculations of Potential to Emit**

Calculations are attached to this TSD.

3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
FC	Materials limited, Title I Condition to avoid major source classification under 40 CFR § 52.21	Weekly records of wood processed, calculation of monthly throughput	
GP001, Wafer Dryer and Control Equipment	PM and PM10 $\leq$ 9.75 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Pollution Control Equipment operation and maintenance, periodic stack emission testing	
GP001, Wafer Dryer and Control Equipment	Opacity: $\leq$ 20% Minn. R. 7007.0800,	Periodic stack emission testing and control equipment operation and maintenance	If the oxidizer and electrostatic precipitator are maintained and operated opacity should not be an

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
			issue.
GP001, Wafer Dryer and Control Equipment	Carbon Monoxide ≤ 30.5 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Periodic stack emission testing, proper operation and maintenance of pollution control equipment	
GP001, Wafer Dryer and Control Equipment	Volatile Organic Compounds ≤ 9.04 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Periodic stack emission testing, proper operation and maintenance of pollution control equipment	
GP002, Spray Coating Operations	PM ≤ 0.3 gr/dscf, Opacity ≤ 20% Minn. R. 7011.0715	Operation and maintenance of control equipment	
GP002, Spray Coating Operations	PM, PM10 and VOC ≤ 20, 20, and 100 tons/yr respectively, Title I Condition to avoid major source classification under 40 CFR § 52.21	Operation and maintenance of control equipment, daily recordkeeping of material usage and calculation of annual emissions monthly	
EU002, Thermal Oil Heater 1	PM ≤ 0.4 lb/mmBtu Opacity ≤ 20% with exceptions, Minn. R. 7011.0515	Operation and maintenance of control equipment, periodic stack emission testing, limits on fuel use	
EU003, Thermal Oil Heater 2	No limits 40 CFR Part 60, subp. Dc	Recordkeeping of fuel use only is required by the regulation	
EU004, Board Press	PM and PM10 ≤ 7.03 lb/hour Title I Condition to avoid major source classification under 40 CFR § 52.21	Periodic stack emission testing	
EU004, Board Press	Opacity ≤ 20% Minn. R. 7011.0715	Periodic stack emission testing.	
EU005, Wood Waste Handling Operations	PM, PM10 ≤ 4.8 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Pollution control equipment operation and maintenance, periodic stack emission testing	
EU005, Wood Waste	Opacity ≤ 20%,	Pollution control equipment operation and maintenance,	

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
Handling Operations	Minn. R. 7011.0715	periodic stack emission testing	
EU006, Wood Waste Handling Operations	PM, PM10 $\leq$ 3.08 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Pollution control equipment operation and maintenance, periodic stack emission testing	
EU006, Wood Waste Handling Operations	Opacity $\leq$ 20%, Minn. R. 7011.0715	Pollution control equipment operation and maintenance, periodic stack emission testing	
EU007, Wood Waste Handling Operations	PM, PM10 $\leq$ 6.86 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Pollution control equipment operation and maintenance, periodic stack emission testing	
EU007, Wood Waste Handling Operations	Opacity $\leq$ 20%, Minn. R. 7011.0715	Pollution control equipment operation and maintenance, periodic stack emission testing	
EU035, Wood Waste Handling Operations	PM, PM10 $\leq$ 3.9 lb/hour, Title I Condition to avoid major source classification under 40 CFR § 52.21	Pollution control equipment operation and maintenance, periodic stack emission testing	
EU035, Wood Waste Handling Operations	Opacity $\leq$ 20%, Minn. R. 7011.0715	Pollution control equipment operation and maintenance, periodic stack emission testing	

3.3 Insignificant Activities

Louisiana Pacific has several operations which are classified as insignificant activities. These are listed in below and in the Appendix to the permit

Emission Unit	Insignificant Applicability	Applicable Performance Standard
Natural gas space heaters (2)	Minn. R. 7007.1300(3)(A)	Minn. R. 7011.0510-.0515
Laboratory activities	Minn. R. 7007.1300(3)(G)	
Brazing, soldering, and welding equipment	Minn. R. 7007.1300(3)(H)(3)	Minn. R. 7011.0610
Equipment used for melting wax	Minn. R. 7007.1300(3)(H)(5)	Minn. R. 7011.0610
Fugitive emissions from roads and parking lots	Minn. R. 7007.1300(3)(J)	Minn. R. 7011.0150
Debarking operation	Minn. R. 7007.1300(4)	Minn. R. 7011.0715
Bark Pile	Minn. R. 7007.1300(4)	Minn. R. 7011.0150

Wafer Pile	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Ash handling, storage and disposal	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Parts cleaning stations	Minn. R. 7007.1300(4)	
Use of cleaning solvents	Minn. R. 7007.1300(4)	
Organic liquid storage tanks (resin, wax emulsion, low VOC paint, thermal oil)	Minn. R. 7007.1300(4)	
Dry fuel preparation system	Minn. R. 7007.1300(4)	Minn. R. 7011.0150
Emergency diesel pump	Minn. R. 7007.1300(4)	Minn. R. 7011.2300
Steam cleaner, gas fired	Minn. R. 7007.1300(4)	Minn. R. 7011.0510-.0515
Steam cleaner, oil fired	Minn. R. 7007.1300(4)	Minn. R. 7011.0510-.0515
Metering bin vent	Minn. R. 7007.1300(3)(I)(2)	Minn. R. 7011.0715
Silo bin vent	Minn. R. 7007.1300(3)(I)(2)	Minn. R. 7011.0715

None of these insignificant activities use control equipment. Thus no periodic monitoring is necessary.

3.4 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements.

Comments Received

Public Notice Period: January 26, 2007 – February 27, 2007
EPA 45-day Review Period: January 26, 2007, March 12, 2007

The only comments received were from Louisiana-Pacific; a copy of their letter is attached. Most of their comments would require re-noticing of the permit and therefore Louisiana-Pacific agreed not to pursue those changes at this time.

The permit, as noticed, did not adequately address monitoring to show compliance with the HAP limits. Therefore, a group was created and added to the permit, as were specific requirements on calculating HAPs at the appropriated GP and EU levels. Other changes were made to the permit as well. All changes made to the permit were to clarify requirements or add new monitoring requirements; therefore it was not necessary to re-public notice the proposed permit. A summary of the changes is included as an attachment.

4. Conclusion

Based on the information provided by Louisiana Pacific, the MPCA has reasonable assurance that the operation of the emission facility, as described in the Air Emission Permit No. 07500019-005, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Jenny Reinertsen (permit writer/engineer)
Paula Connell (revised/finished permit after public notice)
Bob Beresford (enforcement)
Andrew Place (stack testing)
Marshall Cole (peer reviewer)

Attachments: Emission Calculations
Facility Description/CD-01
Louisiana-Pacific Corporation Comment Letter
Summary of Permit Changes

Changes made to permit:
Created a group for HAP limits:
GP 005 HAP limits
(assoc items: EU 001, 002, 004)

HAPs – Total: less than or equal to 22.5 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit takes effect September 13, 2007.

Total HAPs Calculations:

By the 15th of the month, the Permittee shall calculate and record the 12 month rolling sum Total HAP emissions for the previous 12 month period by summing the monthly Total HAP emissions data for the previous 12 months. The Total HAP emissions shall be calculated by adding Total HAPs from EU 001, EU 002, EU 004 (as described in GP 001, EU 002 and EU 004 in this permit).

The limit for the first twelve months shall be calculated as follows:
Total HAPs = 3.38 + [(22.5-3.38)/12]* (n-1)
where n = number of months

HAPs – Single: less than or equal to 9 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. This limit takes effect September 13, 2007.
Total HAPs Calculations:

Single HAPs Calculations:

By the 15th of the month, the Permittee shall calculate and record the 12 month rolling sum Single HAP emissions for the previous 12 month period by summing the monthly Single HAP emissions data for the previous 12 months. The Single HAP emissions shall be calculated by adding Single HAPs from EU 001, EU 002, EU 004 (as described in GP 001, EU 002 and EU 004 in this permit).

The limit for the first twelve months shall be calculated as follows:
Single HAPs = 1.35 + [(9-1.35)/12]* (n-1)
where n = number of months

Added to GP 001 and EU 004:

HAP Calculations:
Total and Single HAPs shall be calculated by multiplying production rate by an approved emission factor. The emission factors shall be from approved performance tests for acetaldehyde, acrolein, formaldehyde, methanol, phenol, and propionaldehyde. If emission factors available from testing are not available, and for all other HAPs, AP-42 emission factors shall be used. The Permittee may use other emission factors upon MPCA approval.

Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of tons of finished product from the dryers. This shall be based on written records.

Added to EU 002:

HAP Calculations:

Total and Single HAPs shall be calculated by multiplying production rate by an approved emission factor. AP-42 emission factors shall be used. The Permittee may use other emission factors upon MPCA approval.

Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of fuel combusted. This shall be based on written records.

Took out testing requirements at individual baghouses, and replaced with a GP, and required testing 2 baghouses every 5 years. This will allow the test data to be used in emission inventory (can use test data within 10 years):

GP 004 Baghouse testing requirements
(EU 005, 006, 007, 035)

Performance Test: due before end of each calendar 60 months starting 12/13/2001 for Particulate Matter and Particulate Matter < 10 microns and for opacity. Two baghouses, from EU 005, 006, EU 007 and 035, shall be tested every 5 years. The baghouses tested shall be the two baghouses not tested in the previous 5 years.

GP 001

Separated testing requirements; now there are individual requirements for;
PM, PM10, opacity together in one; NOx, CO, and VOC all listed individually. Each requirement cited as Title I Condition, to match limit citations.

EU 004
Added PM10 testing to PM and opacity testing requirement.