

AIR EMISSION PERMIT NO. 13700030-001

IS ISSUED TO

Hill Wood Products Inc.

HILL WOOD PRODUCTS

9483 Ashawa Road
Cook, St. Louis County, MN 55723

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
Total Facility Operating Permit

Application Date
04/17/1995

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

Issue Date: February 28, 2006

Expiration: February 28, 2011
All Title I Conditions do not expire.

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

for Sheryl A. Corrigan
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.

Notwithstanding the foregoing permit shield protection, the MPCA and U.S. Environmental Protection Agency (EPA) specifically reserve, and the Permittee accepts the permit knowing that the MPCA or EPA may investigate, initiate and pursue enforcement action for continuing violations or violations that occurred prior to or at the time of permit issuance and that may be addressed by conditions in this permit. Enforcement action may include, but is not limited to, further corrective action and penalties. In addition, prior to any future modification related activities that may increase the emissions of PM₁₀, a thorough NAAQS modeling analysis for PM₁₀ must be completed and approved by the MPCA.

FACILITY DESCRIPTION:

Hill Wood Products is a sawmill and lumber processing facility. The facility purchases birch logs to produce wood pallets, dowels, wood biscuits, window moldings, and wood slats. The facility sources include:

- Two boilers and dryer combustion sources. The boilers and dryer burn wood waste. The dryer dries wood waste for processing in the hammermills for use as a fuel both on and off site. The dryer has an EFB and cyclone for emissions control. The boilers provide steam for a lumber kiln.
- Particulate emission sources such as debarking, skragging, sawing, trimming, molding, sanding, hammermills, and storage silos. Some units are vented internally without controls, some internally with controls and some externally with controls.
- Miscellaneous sources such as a small extruder for surface coating, an emergency fire pump, and an emergency generator.

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

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
SOURCE-SPECIFIC REQUIREMENTS	hdr
Ambient Air Quality Standards: The Permittee shall comply and demonstrate compliance with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50 and with Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. The permittee may demonstrate compliance through modeling, monitoring or an alternative widely-accepted method approved in writing from the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subd. 4a and 9; Minn. R. 7007.0080, subp. 5; Minn. R. 7007.0100, subps. 7A, 7L and 7M; Minn. R. 7007.0800, subps. 1, 2 and 4; Minn. R. 7009.0010 - 7009.0080
This permit shall not alter or affect the liability of an owner or operator for any violation of applicable requirements prior to or at the time of permit issuance.	Minn. R. 7007.1800(C)(2)
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 with the requirements of 40 CFR part 63. The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard). See 40 CFR pt. 63.9(b)(2).	40 CFR Part 63 - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

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
<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>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</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	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)
REPORTING/SUBMITTALS	hdr
<p>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.</p> <p>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.</p>	Minn. R. 7019.1000, subp. 3
<p>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.</p> <p>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.</p>	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

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

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
Fugitive Emissions Control Plan: The Permittee shall submit a fugitive emissions control plan within 60 days of the date of permit issuance for review and approval by the Commissioner. The plan shall identify all fugitive emission sources, primary and contingent control measures, and record keeping. 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 emission control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
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
Application for Permit Reissuance: due 180 days before expiration of existing permit.	Minn. R. 7007.0400, subp. 2
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. 7002.0005 through Minn. R. 7002.0095
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: GP 001 Boilers 1 and 2**Associated Items:** EU 001 Boiler 1

EU 002 Boiler 2

SV 001 Boilers Stack

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
EMISSION AND OPERATIONAL LIMITS	hdr
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input <0.347 lbs/million BTU heat input for PTE calculations>	Minn. R. 7011.0510, 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. 7011.0510, subp. 2
Capacity: less than or equal to 6.7 million Btu's/hour for each boiler.	Minn. R. 7007.0800, subp. 2
Fuel Type: Wood waste as defined in Minn. R. 7011.1201, subp. 48.	Minn. R. 7005.0100, subp. 35a
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total fuel use and the type of fuel. This shall be based on throughput logs, meters, and/or delivery records.	Minn. R. 7007.0800, subps. 4 and 5
The Permittee shall comply with the requirements of 40 CFR pt. 63, subp. DDDDD. The facility must comply by 09/13/2007.	40 CFR pt. 63, subp. DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
SPECIFIC PERFORMANCE TESTING	hdr
Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and PM and Opacity limits and, if necessary, establish new operational limits.	Minn. R. 7017.2020, subp. 1
Testing Frequency Plan: due 60 days after Performance Tests. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: GP 002 Log Sawing

Associated Items: EU 024 Skragg Saw (internally venting, uncollected, uncontrolled)
EU 025 Double Arbor Saw (internally venting, uncollected, uncontrolled)
EU 026 Horizontal Band Saw (internally venting, uncollected, uncontrolled)
EU 027 Green Chain Trimmer Saw (internally venting, uncollected, uncontrolled)
EU 028 Pallet Lumber Trimmer Saw (internally venting, uncollected, uncontrolled)
EU 029 Vertical Resaw (internally venting, uncollected, uncontrolled)
SV 017 Building Ventillation for Internally Venting Units

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
EMISSION AND OPERATIONAL 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. 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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: GP 003 Wood Working Equipment Vented to CE 012

Associated Items: CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 030 Moulder 1

EU 031 Moulder 2

EU 032 Bandsaw

EU 033 Moulder

EU 034 Trimmer Saw

EU 035 Ripper Saw

EU 036 22AL Moulder

EU 037 Fame Saw

EU 040 Ripper Saw

EU 041 Splitter Saw

EU 042 Shaper

EU 043 Planner

EU 044 Planner

EU 045 Chuck & Boring

EU 046 Dowel Sander

EU 047 Chuck & Boring

EU 048 Dowel Sander

EU 049 Dowel Machine

EU 050 Dowel Machine

EU 051 24" Band Saw

EU 052 Trim Saw 1

EU 053 Trim Saw 2

EU 054 Trimmer 1

EU 055 Trimmer 2

EU 056 Rotary Trimmer 1

EU 057 Rotary Trimmer 2

EU 058 Chuck & Boring

EU 059 Dowel Sander

EU 060 Dowel Trimmer

SV 014 Carter Day Baghouse

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	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. 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 REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

The fabric filter (CE 012) shall be operated at all times when emission units 046, 048, 059 are in operation. See GP 006 for fabric filter requirements.	Minn. R. 7007.0800, subp. 2 and 14
The fabric filter (CE 012) may be operated at all times when an associated emission unit is in operation other than for Emission Units 046, 048, 059. See CE 012 for fabric filter requirements.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: GP 004 Sanders**Associated Items:** CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 038 24" Sander 1

EU 039 24" Sander 2

SV 017 Building Ventillation for Internally Venting Units

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	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. 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 REQUIREMENTS	hdr
The fabric filter (CE 014) shall be operated at all times when an associated emission unit is in operation. See CE 014 for fabric filter requirements.	Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: GP 005 EU 012 Dryer Control Equipment**Associated Items:** CE 009 Centrifugal Collector - Medium Efficiency

CE 010 Electrified Filter Bed

SV 002 Dryer Stack

SV 013 Dryer Bypass Stack

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that they achieve an overall control efficiency for Total Particulate Matter: greater than or equal to 61 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that they achieve an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 61 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: GP 006 Equipment Requiring Control by CE 012**Associated Items:** CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 046 Dowel Sander

EU 048 Dowel Sander

EU 059 Dowel Sander

SV 014 Carter Day Baghouse

What to do	Why to do it
The requirements of this group apply separately to each item listed under this group.	hdr
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 54 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 54 percent collection efficiency	Minn. R. 7007.0800, subp. 2 and 14
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
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 5 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 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. 2 and 14
MONITORING AND RECORDKEEPING	hdr
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 and 5
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 & 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
PERFORMANCE TESTING	hdr
Performance Test Pre-test Meeting: due 14 days before Performance Test to ensure that the demonstration (mass balance) is statistically representative and will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10.	Minn. R. 7017.2030; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products
Permit Number: 13700030 - 001

<p>Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and establish new operational limits. The demonstration (mass balance) will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10.</p> <p>The permittee may demonstrate compliance through sampling or an alternative widely-accepted method approved in writing from the MPCA.</p>	<p>Minn. R. 7017.2020, subp. 1; Minn. R. 7007.0800, subp. 2</p>
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TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 007 Slab & Edge Chipper**Associated Items:** SV 015 Slab & Edge Chipper Stack

What to do	Why to do it
EMISSION AND OPERATIONAL 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. 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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 012 Heil Triple Pass Rotary Dryer**Associated Items:** CE 009 Centrifugal Collector - Medium Efficiency

CE 010 Electrified Filter Bed

SV 002 Dryer Stack

SV 013 Dryer Bypass Stack

What to do	Why to do it
EMISSION AND OPERATIONAL 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. R. 7011. 0735.	Minn. R. 7011.0610, subp. 1(A)(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. 7011.0610, subp. 1(A)(2)
Temperature: less than or equal to 1,000 degrees F using 3-hour Rolling Average (dryer inlet temperature) until a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average temperature recorded during the most recent performance test where compliance was demonstrated.	Minn. R. 7007.0800, subp. 2
Fuel Usage: less than or equal to 1,875 lbs/hour using 3-hour Rolling Average (at 0 percent moisture) until a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, based on the fuel usage recorded during the most recent performance test where compliance was demonstrated.	Minn. R. 7007.0800, subp. 2
Production: less than or equal to 12 tons/hour using 3-hour Rolling Average (at 0 percent moisture) until a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, based on the fuel usage recorded during the most recent performance test where compliance was demonstrated.	Minn. R. 7007.0800, subp. 2
Fuel Type: Wood waste as defined in Minn. R. 7011.1201, subp. 48.	Minn. R. 7005.0100, subp. 35a
MONITORING AND RECORDKEEPING	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total fuel use and the type of fuel. This shall be based on throughput logs, meters, and/or delivery records.	Minn. R. 7007.0800, subps. 4 and 5
Temperature: The Permittee shall make a continuous hard copy record of the inlet temperature of the dryer. The Permittee shall notify the MPCA in writing within 15 days of any exceedances of the limit above.	Minn. R. 7007.0800, subps. 4 and 5
Fuel Usage: The Permittee shall record the fuel usage each hour at 0 percent moisture. The Permittee shall notify the Agency in writing within 15 days of any exceedances of the limit above.	Minn. R. 7007.0800, subps. 4 and 5
Production rates: The Permittee shall record the amount of product produced each hour at 0 percent moisture. The Permittee shall notify the Agency in writing within 15 days of any exceedances of the limit above.	Minn. R. 7007.0800, subps. 4 and 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - inlet temperature is outside the required operating range; - fuel usage is outside the required operating range; - production is outside the required operating range; Corrective actions shall return the operation of the equipment to within the permitted range 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. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 & 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording information as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the unit is in operation.	Minn. R. 7007.0800, subp. 4
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
The pollution control equipment (CE 009 and CE 010) shall be operated at all times when the emission unit is in operation. See CE 009 CE 010 and GP 005 for control requirements.	Minn. R. 7007.0800, subps. 2 and 14
SPECIFIC PERFORMANCE TESTING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and PM, Opacity and operating limits and, if necessary, establish new operational limits.	Minn. R. 7017.2020, subp. 1
Testing Frequency Plan: due 60 days after Performance Tests. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 013 200 hp Hammermill**Associated Items:** CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 003 200 hp Hammermill

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	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. 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 REQUIREMENTS	hdr
The fabric filter (CE 011) shall be operated at all times when the emission unit is in operation. See CE 011 for fabric filter requirements.	Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 014 100 hp Hammermill**Associated Items:** CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 016 100 hp Hammermill Stack

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	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. 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 REQUIREMENTS	hdr
The fabric filter (CE 013) shall be operated at all times when the emission unit is in operation. See CE 013 for fabric filter requirements.	Minn. R. 7007.0800, subps. 2 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 018 Extruder**Associated Items:** SV 004 Extruder

What to do	Why to do it
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
Material Usage: less than or equal to 99 gallons/month using Other (Other is defined as "of finishing material or adhesives in the manufacture of wood furniture or wood furniture components") to be calculated by the 15th day of each month for the previous month using the daily records as described later in this permit.	40 CFR 63.801, Minn. R. 7007.0800, subp. 2
MONITORING AND RECORDKEEPING	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coating, gluing, cleaning, and washoff materials used (finishing material or adhesives) in the manufacture of wood furniture or wood furniture components. This shall be based on written usage logs, flowmeters, and/or delivery records.	40 CFR 63.800(a), 40 CFR 63.801, Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 019 Fire Pump**Associated Items:** SV 005 Fire Pump

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input using 3-hour Rolling Average <0.29 lbs/million Btu for PTE calculations>	Minn. R. 7011.2300, subp. 2
Fuel type: No. 2 fuel oil only.	Minn. R. 7005.0100, subp. 35a
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight of diesel fuel.	Minn. R. 7007.0800, subp. 2
RECORDINGKEEPING REQUIREMENTS	hdr
Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency diesel generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subps. 4 & 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of No. 2 fuel oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 020 Emergency Generator**Associated Items:** SV 006 Emergency Generator

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
Opacity: less than or equal to 20 percent once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input using 3-hour Rolling Average <0.29 lbs/million Btu for PTE calculations>	Minn. R. 7011.2300, subp. 2
Fuel type: No. 2 fuel oil only.	Minn. R. 7005.0100, subp. 35a
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight of diesel fuel.	Minn. R. 7007.0800, subp. 2
RECORDINGKEEPING REQUIREMENTS	hdr
Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency diesel generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subps. 4 & 5
Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of No. 2 fuel oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 021 Lumber Kiln**Associated Items:** SV 007 Lumber Kiln Vent 1

SV 012 Lumber Kiln Vent 6

What to do	Why to do it
EMISSION AND OPERATIONAL 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. 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)
The Permittee shall comply with the requirements of 40 CFR pt. 63, subp. DDDD.	40 CFR Part 63, Subpart DDDD

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 022 Gluing Operations**Associated Items:** SV 017 Building Ventillation for Internally Venting Units

What to do	Why to do it
EMISSION AND OPERATIONAL REQUIREMENTS	hdr
Material Usage: less than or equal to 1099 gallons/year using 12-month Rolling Sum (of coatings in the source category defined in paragraph 40 CFR 63.4681(a)) to be calculated by the 15th day of each month for the previous 12-month period using the daily records as described later in this permit.	40 CFR Section 63.4681(b), Minn. R. 7007.0800, subp. 2
MONITORING AND RECORDKEEPING	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total quantity of all coatings used (in the source category defined in paragraph 40 CFR 63.4681(a)). This shall be based on written usage logs, flowmeters, and/or delivery records.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 023 Debarking (internally venting, uncollected, uncontrolled)**Associated Items:** SV 017 Building Ventillation for Internally Venting Units

What to do	Why to do it
EMISSION AND OPERATIONAL 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. 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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 061 Double End Tenenor (internally venting, uncollected, uncontrolled)**Associated Items:** SV 017 Building Ventillation for Internally Venting Units

What to do	Why to do it
EMISSION AND OPERATIONAL 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. 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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: EU 062 Outside Wood Hog

What to do	Why to do it
EMISSION AND OPERATIONAL 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. 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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: CE 009 Centrifugal Collector - Medium Efficiency**Associated Items:** EU 012 Heil Triple Pass Rotary Dryer

GP 005 EU 012 Dryer Control Equipment

What to do	Why to do it
OPERATIONAL REQUIREMENTS (See GP 005 for Efficiency Requirements)	hdr
The Permittee shall operate and maintain the cyclone at all times that any emission unit controlled by the cyclone is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the cyclone 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. 2 and 14
B. MONITORING AND RECORDKEEPING	hdr
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the cyclone or any of its components are found during the inspections to need repair. Corrective actions shall return the operation 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 cyclone. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar year, 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 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: CE 010 Electrified Filter Bed**Associated Items:** EU 012 Heil Triple Pass Rotary Dryer

GP 005 EU 012 Dryer Control Equipment

What to do	Why to do it
OPERATIONAL REQUIREMENTS (See GP 005 for Efficiency Requirements)	hdr
The Permittee shall operate and maintain the EFB at all times that any emission unit controlled by the EFB is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 4 inches of water column and less than or equal to 9 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 during inclement weather.	Minn. R. 7007.0800, subp. 2 and 14
Voltage: The ionizing voltage no less than 40 KV and the filter bed voltage at no less than 10 KV, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 and 14
Temperature: less than or equal to 30 degrees F using 3-hour Rolling Average above the dewpoint of the exhaust gases at the outlet of the EFB, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 and 14
The Permittee shall operate and maintain the EFB 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. 2 and 14
Visible Emissions: The Permittee shall check the 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, once each day of operation.	Minn. R. 7007.0800, subp. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Visible Emissions, Pressure Drop, Voltage, Temperature and Dewpoint: The Permittee shall record the time and date of each visible emission inspection, pressure drop and voltage reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop, voltage, temperature and dew point was within the range specified in this permit	Minn. R. 7007.0800, subp. 4 and 5
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 & 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording the information as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the control equipment is in operation.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 013 200 hp Hammermill

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 84 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 84 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
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
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. 2 and 14
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.	Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to .5 inches of water column and less than or equal to 5 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 during inclement weather.	Minn. R. 7007.0800, subp. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.	Minn. R. 7007.0800, subp. 4 and 5
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 & 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
PERFORMANCE TESTING	hdr
Performance Test Pre-test Meeting: due 14 days before Performance Test to ensure that the demonstration (mass balance) is statistically representative and will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10.	Minn. R. 7017.2030; Minn. R. 7007.0800, subp. 2
Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and establish new operational limits. The demonstration (mass balance) will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10. The permittee may demonstrate compliance through sampling or an alternative widely-accepted method approved in writing from the MPCA.	Minn. R. 7017.2020, subp. 1; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 030 Moulder 1

EU 031 Moulder 2

EU 032 Bandsaw

EU 033 Moulder

EU 034 Trimmer Saw

EU 035 Ripper Saw

EU 036 22AL Moulder

EU 037 Fame Saw

EU 040 Ripper Saw

EU 041 Splitter Saw

EU 042 Shaper

EU 043 Planner

EU 044 Planner

EU 045 Chuck & Boring

EU 046 Dowel Sander

EU 047 Chuck & Boring

EU 048 Dowel Sander

EU 049 Dowel Machine

EU 050 Dowel Machine

EU 051 24" Band Saw

EU 052 Trim Saw 1

EU 053 Trim Saw 2

EU 054 Trimmer 1

EU 055 Trimmer 2

EU 056 Rotary Trimmer 1

EU 057 Rotary Trimmer 2

EU 058 Chuck & Boring

EU 059 Dowel Sander

EU 060 Dowel Trimmer

GP 003 Wood Working Equipment Vented to CE 012

GP 006 Equipment Requiring Control by CE 012

What to do	Why to do it
The operation of this control device is not necessary in order for the process and source to meet applicable emission limits (Except for Emissions Units 046, 048, and 059; see GP 006 for control requirements regarding these Emission Units). However, if the Permittee wishes to take credit for operation of this device for purposes of reporting actual emissions for the emissions inventory, then the Permittee must comply with the following requirements.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
The Permittee shall operate and maintain the control equipment at all times that any process equipment controlled by the control equipment (listed above under Associated Items) is operating. The Permittee shall operate and maintain the control equipment 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. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 79 percent control efficiency	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 79 percent capture efficiency	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
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. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
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.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
Pressure Drop: greater than or equal to .5 inches of water column and less than or equal to 5 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 during inclement weather.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
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. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
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. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
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. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
PERFORMANCE TESTING	hdr
Performance Test Pre-test Meeting: due 14 days before Performance Test to ensure that the demonstration (mass balance) is statistically representative and will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)
Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and establish new operational limits. The demonstration (mass balance) will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10. The permittee may demonstrate compliance through sampling or an alternative widely-accepted method approved in writing from the MPCA.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020 (G)

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 014 100 hp Hammermill

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 84 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 84 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
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
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.	Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to .5 inches of water column and less than or equal to 5 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, 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 during inclement weather.	Minn. R. 7007.0800, subp. 2 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. 2 and 14
MONITORING AND RECORDKEEPING	hdr
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.	Minn. R. 7007.0800, subp. 4 and 5
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 & 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
PERFORMANCE TESTING	hdr
Performance Test Pre-test Meeting: due 14 days before Performance Test to ensure that the demonstration (mass balance) is statistically representative and will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10.	Minn. R. 7017.2030; Minn. R. 7007.0800, subp. 2
Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and establish new operational limits. The demonstration (mass balance) will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10. The permittee may demonstrate compliance through sampling or an alternative widely-accepted method approved in writing from the MPCA.	Minn. R. 7017.2020, subp. 1; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Subject Item: CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 038 24" Sander 1

EU 039 24" Sander 2

GP 004 Sanders

What to do	Why to do it
EMISSION LIMITS AND OPERATIONAL REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 84 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 84 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
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
Visible Emissions: The Permittee shall check the fabric filter stack and associated devices for any visible emissions once each day of operation.	Minn. R. 7007.0800, subp. 2 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. 2 and 14
MONITORING AND RECORDKEEPING	hdr
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 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - 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 & 14
PERFORMANCE TESTING	hdr
Performance Test Pre-test Meeting: due 14 days before Performance Test to ensure that the demonstration (mass balance) is statistically representative and will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10.	Minn. R. 7017.2030; Minn. R. 7007.0800, subp. 2
Performance Test: due 180 days after Permit Issuance to demonstrate compliance with permit requirements and establish new operational limits. The demonstration (mass balance) will be performed while operating under parameters producing the worse case pollutant emission rates (feed rate, wood species, sander condition, etc.) to verify the overall control efficiency(s) for PM and PM10. The permittee may demonstrate compliance through sampling or an alternative widely-accepted method approved in writing from the MPCA.	Minn. R. 7017.2020, subp. 1; Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS

02/28/06

Facility Name: Hill Wood Products
Permit Number: 13700030 - 001

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 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

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.

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

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 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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

What to send	When to send	Portion of Facility Affected
Computer Dispersion Modeling Protocol	<p>due 180 days after Permit Issuance for modeling PM10. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.</p> <p>This requirement is not necessary if the permittee chooses to demonstrate compliance through monitoring or an alternative widely-accepted method approved in writing from the MPCA.</p>	Total Facility
Computer Dispersion Modeling Results	<p>due 90 days after Computer Dispersion Modeling Protocol for PM10 is reviewed and approved by the MPCA. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.</p> <p>This requirement is not necessary if the permittee chooses to demonstrate compliance through monitoring or an alternative widely-accepted method approved in writing from the MPCA.</p>	Total Facility
Monitoring Plan	<p>due 1,096 days after Permit Issuance for Ambient Air Monitoring.</p> <p>Monitoring shall be done to measure ambient concentrations of PM10 along the property line (fenceline for PSD purposes) and in the vicinity of the facility. As approved by the MPCA, the Permittee shall install monitoring equipment using an approved option. This is a state-only requirement and it is not enforceable by the EPA Administrator or citizens under the Clean Air Act.</p> <p>This requirement is not necessary if the permittee chooses to demonstrate compliance through modeling or an alternative widely-accepted method approved in writing from the MPCA.</p>	Total Facility
Submittal	due 180 days after Effective Date of Permit, certified and complete facility description forms and permit related information as provided from the MPCA Delta Database.	Total Facility
Testing Frequency Plan	<p>due 60 days after Initial Performance Test</p> <p>The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.</p>	CE011
Testing Frequency Plan	<p>due 60 days after Initial Performance Test</p> <p>The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.</p>	CE012
Testing Frequency Plan	<p>due 60 days after Initial Performance Test</p> <p>The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.</p>	CE013

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

Testing Frequency Plan	due 60 days after Initial Performance Test The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	CE014
Testing Frequency Plan	due 60 days after Initial Performance Test The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP006

TABLE B: RECURRENT SUBMITTALS

02/28/06

Facility Name: Hill Wood Products

Permit Number: 13700030 - 001

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 occurred, 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:Hill Wood Products

Permit Number: 13700030-001

APPENDIX A: Insignificant Activities and Applicable Requirements

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(H)	Miscellaneous:	
	4. brazing, soldering or welding equipment;	Minn. R. 7011.0715
3(J)	Fugitive Emissions from roads and parking lots.	Minn. R. 7011.0150

These Insignificant Emission Units (IEU) are subject to the state general applicable requirements. It is our belief that IEU's listed in Appendix A to the permit associated with inconsequential environmental impacts and present little potential for violations of generally applicable requirements, therefore no monitoring will be required.

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 13700030-001

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: 2421)
Hill Wood Products 9483 Ashawa Road Cook, MN 55723	9483 Ashawa Road Cook, MN 55723 St. Louis County
Contact: Steve Hill Phone: (218) 666-5933	

1.2. Description of the Permit Action

Hill Wood Products is a sawmill and lumber processing facility. The facility purchases birch logs to produce wood pallets, dowels, wood biscuits, window moldings, and wood slats. The facility sources include:

- Two boilers and dryer combustion sources. The boilers and dryer burn wood waste. The dryer dries wood waste for processing in the hammermills for use as a fuel both on and off site. The dryer has an EFB and cyclone for emissions control. The boilers provide steam for a lumber kiln.
- Particulate emissions include sources such as debarking, skragging, sawing, trimming, molding, sanding, hammermills, and storage silos. These sources are controlled and vented in a number of ways.
 - A Carter Day baghouse controls and vents most woodworking equipment. The baghouse vents externally.
 - Two hammermills each with baghouses that vent externally.
 - Log debarking, sawing and a tenoner - vent internally without controls.
 - Sanders – two sanders vent to an internally venting baghouse.
 - Slab and edge chipper vents externally without controls.
 - Wood hog located outside.
- Miscellaneous sources such as a small extruder for surface coating, an emergency fire pump, and an emergency generator.

1.3 Description of Any Changes Allowed with this Permit Action

The facility was a minor source of CO before the 1986 modification. The 1986 modification was initially permitted to keep the facility a synthetic minor PSD. This permit will revise the CO permit limits to keep the 1986 modification a minor PSD modification, however, the facility will now be a major PSD source. Revising the permit will resolve the Notice of Non-Compliance issued for the dryer after the dryer failed to meet the CO permit limits. The initial permit limits were determined to be unnecessary, as documented in the MPCA's letter to Hill Wood Products dated May 16, 1996, from John E. Elling (attached).

1.4 Permit History

Permit Number and Issuance Date	Action Authorized
1928-88-OT-1	Total Facility Permit authorizing construction of the sawdust drying plant including the sawdust conveying system, storage piles, a hog, a metering bin, a sawdust-fired wood waste dryer, final screening, hammermill, storage, and loadout. The facility's boilers, drying kilns, debarking, cutting, and sawing and generators were already at the facility.
1928-92-OT-2	A Total Facility Permit was issued in 1992 to allow construction of an EFB for emission control on the dryer, modification of the boilers for more efficient combustion, installation of a baghouse to control sawdust from the main plant building, and construction of a new building with an additional baghouse.

Previous permits included a 'new plant baghouse'. No equipment is currently connected to this new plant baghouse. Therefore, this unit has been removed from the permit. Hill Wood will have to process the appropriate permits in the future to connect equipment to and operate that baghouse.

1.5. Facility Emissions:

Table 2. Total Facility Potential to Emit Summary

	PM tpy	PM₁₀ tpy	SO₂ Tpy	NO_x tpy	CO Tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	233.7	177.7	3.1	178.9	324.5	90.4	17.9 Formaldehyde	30.2
Total Facility Actual Emissions (2002)	9.92	6.52	0.05	0.95	8.62	0.42	HAPs not reported in emission inventory	

Table 3. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	CO		PM, PM ₁₀ , NO _x , SO ₂ , VOCs
Part 70 Permit Program	PM ₁₀ , CO, NO _x		SO ₂ , VOCs
Part 63 NESHAP	X		

2. Regulatory and/or Statutory Basis

New Source Review - PSD

The facility was a minor source of CO before the 1986 modification. The 1986 modification was initially permitted to keep the facility a synthetic minor PSD. This permit will revise the CO permit limits to keep the 1986 modification a minor PSD modification, however, the facility will now be a major PSD source. Revising the permit will resolve the Notice of Non-Compliance issued for the dryer after the dryer failed to meet the CO permit limits. The initial permit limits were determined to be unnecessary, as documented in the MPCA's letter to Hill Wood Products dated May 16, 1996, from John E. Elling (attached).

Part 70 Permit Program

The facility is a major source of PM₁₀, CO, NO_x, and HAPs under the Part 70 Permit Program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a major HAP source with formaldehyde emissions from the facility dryer greater than 10 ton/yr. As a major HAP source, the facility has equipment covered under the Industrial/Commercial/Institutional Boilers and Process Heaters, Wood Furniture Manufacturing Operations, Stationary Reciprocating Internal Combustion Engines, and the Plywood and Composite Wood Products MACT standards. No exhaust standards apply to the facility's equipment based on the determinations in Table 4 below. The dryer is not subject to the Plywood and Composite Wood Products MACT standard as the presence of a lumber kiln does not make the entire facility subject to the standard.

Minnesota State Rules

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

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment

- Minn. R. 7011.0710 and .0715 Standards of Performance for Pre- and Post-1969 Industrial Process Equipment

- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines
- Minn. R. 7011.0070 Listed Control Equipment and Control Equipment Efficiencies

Table 4. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
Total Facility (TF)	a) 40 CFR pt. 50; Minn. Stat. § 116.07, subds. 4a and 9; Minn. R. 7007.0080; Minn. R. 7007.0100; Minn. R. 7007.0800 Minn. R. 7009.0010-.0080; Minn. R. 7011.0150; b) 40 CFR pt 63	a) Modeling requirements to verify compliance status with the NAAQS. b) Comply with the requirements of 40 CFR part 63.
GP001	a) Minn. R. 7011.0510 b) Minn. R. 7007.0800 c) Minn. R. 7005.0100 d) 40 CFR pt. 63 subp. DDDDD e) Minn. R. 7017.2020	a) Standards of performance limits for particulate matter and opacity for existing indirect heating equipment. b) Monitoring and recordkeeping requirements ensure compliance. c) Fuel restriction ensures compliance. d) Comply with the requirements of 40 CFR pt. 63 subp. DDDDD e) Testing requirements to ensure and verify compliance.
GP002	Minn. R. 7011.0715	Standards of performance limits for particulate matter for industrial equipment.
GP003	a) Minn. R. 7011.0715 b) Minn. Stat. § 116.07, subd. 4a; Minn. R. 7019.3020	a) Standards of performance limits for particulate matter for industrial equipment. b) Control Equipment required for EU 046, 048 and 059 for compliance with a) Standards of performance limits for particulate matter for industrial equipment. Additional requirements if the facility chooses to use the control equipment for the calculation of actual emissions for emission inventory.

EU, GP, or SV	Applicable Regulations	Comments:
GP004	a) Minn. R. 7011.0715 b) Minn. R. 7007.0800	a) Standards of performance limits for particulate matter for industrial equipment. b) Control Equipment required for EU 038 and 039 for compliance with a) Standards of performance limits for particulate matter for industrial equipment.
GP005	a) Minn. R. 7007.0800	a) Control Equipment required for EU 012 for compliance with the Standards of performance limits for particulate matter for industrial equipment. Together, the control devices achieve the required control efficiency.
GP006	a) Minn. R. 7007.0800 b) Minn. R. 7017.2020	a) Control Equipment requirements for EU 046, 048 and 059 for compliance with the Standards of performance limits for particulate matter for industrial equipment. b) Performance testing verifies the overall control efficiency.
EU 007	Minn. R. 7011.0715	Standards of performance limits for particulate matter for industrial equipment.
EU 012	a) Minn. R. 7011.0610 b) Minn. R. 7007.0800 c) Minn. R. 7005.0100 d) Minn. R. 7017.2020	a) Standards of Performance for Fossil-Fuel Burning Direct Heating Equipment. b) Limit to ensure proper operation. Monitoring, reporting and recordkeeping requirements ensure proper operation. c) Fuel restriction ensures compliance. d) Testing requirements to ensure and verify compliance.
EU 013	a) Minn. R. 7011.0715 b) Minn. R. 7007.0800	a) Standards of performance limits for particulate matter for industrial equipment. b) Pollution control requirements
EU 014	a) Minn. R. 7011.0715 b) Minn. R. 7007.0800	a) Standards of performance limits for particulate matter for industrial equipment. b) Pollution control requirements
EU 018	a) 40 CFR pt 63.801, Minn. R. 7007.0800	a) Monitoring, reporting and recordkeeping requirements ensure compliance. Limit taken for rule applicability.
EU 019	a) Minn. R. 7011.2300 b) Minn. R. 7005.0100 c) Minn. R. 7007.0800	a) Standards of performance for Stationary Internal Combustion Engines b) Fuel restriction ensures compliance. c) Restriction on sulfur content to minimize sulfur dioxide emissions. Recordkeeping requirements to ensure compliance.

EU, GP, or SV	Applicable Regulations	Comments:
EU 020	a) Minn. R. 7011.2300 b) Minn. R. 7005.0100 c) Minn. R. 7007.0800	a) Standards of performance for Stationary Internal Combustion Engines b) Fuel restriction ensures compliance. c) Restriction on sulfur content to minimize sulfur dioxide emissions. Recordkeeping requirements to ensure compliance.
EU 021	a) Minn. R. 7011.0715 b) 40 CFR pt. 63, subp. DDDD	a) Standards of performance limits for particulate matter for industrial equipment. b) National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products
EU 022	a) 40 CFR § 63.4681, Minn. R. 7007.0800	a) Monitoring, reporting and recordkeeping requirements ensure compliance. Limit taken for rule applicability.
EU 023	Minn. R. 7011.0715	Standards of performance limits for particulate matter for industrial equipment.
EU 061	Minn. R. 7011.0715	Standards of performance limits for particulate matter for industrial equipment.
EU 062	Minn. R. 7011.0715	Standards of performance limits for particulate matter for industrial equipment.
CE 009	Minn. R. 7007.0800	Operational, monitoring and recordkeeping requirements.
CE 010	Minn. R. 7007.0800	Operational, monitoring and recordkeeping requirements.
CE 011	Minn. R. 7007.0800	Control efficiency limits and operational requirements.
CE 012	Minn. Stat. § 116.07, subd. 4a; Minn. R. 7019.3020	Control efficiency limits and operational requirements if the facility chooses to use the control equipment for the calculation of actual emissions for emission inventory. Performance testing verifies the overall control efficiency.
CE 013	Minn. R. 7007.0800	Control efficiency limits and operational requirements.
CE 014	Minn. R. 7007.0800 Minn. R. 7017.2020	Control efficiency limits and operational requirements. Performance testing verifies the overall control efficiency.

3. Technical Information

3.1 Calculations of Potential to Emit

Attachment B to this TSD contains total uncontrolled and limited facility emissions and detailed spreadsheets and supporting information.

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

Table 5. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
GP001	PM: ≤ 0.6 lb/MMBTU (Minn. R. 7011.0510, subp. 1) Opacity: ≤ 20 % with exceptions (Minn. R. 7011.0510, subp. 2) Fuel Restriction: Wood waste (Minn. R. 7005.0100, subp. 35a)	Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a daily and monthly basis. Performance Testing: Due 180 days after permit issuance.	Record keeping and Performance Testing ensures compliance.
GP003	Pollution Control Equipment (Minn. R. 7007.0800)	Specific unit emissions must or may be vented to CE 012.	Since the group is controlled by the associated control equipment, no additional periodic monitoring is warranted. See CE 012 or GP 006 for specific parameters
GP004	Pollution Control Equipment (Minn. R. 7007.0800)	Emissions must be vented to CE 014.	Since the group is controlled by the associated control equipment, no additional periodic monitoring is warranted. See CE 014 for specific parameters
GP 006	PM/PM10: the fabric filters must be maintained to achieve 54% control efficiency or greater (Minn. R. 7007.0800)	Recordkeeping: O & M inspections, pressure drop and visible emissions. Performance Testing: Due 180 days after permit issuance.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.

EU012	<p>PM: ≤ 0.3 gr/dscf Opacity: $<20\%$ (Minn. R. 7011.0610)</p> <p>Pollution Control Equipment (Minn. R. 7007.0800)</p>	<p>Monitoring and Recordkeeping: Temperature, Fuel Use, Production, Fuel Type</p> <p>Emissions from unit must be vented to CE 009 and 010.</p> <p>Performance Testing: Due 180 days after permit issuance.</p>	<p>Since the group is controlled by the associated control equipment, no additional periodic monitoring is warranted. See CE 009 or CE 010 for specific parameters</p>
EU 013	<p>Pollution Control Equipment (Minn. R. 7007.0800)</p>	<p>Emissions from unit must be vented to CE 011.</p>	<p>Since the group is controlled by the associated control equipment, no additional periodic monitoring is warranted. See CE 011 for specific parameters.</p>
EU 014	<p>Pollution Control Equipment (Minn. R. 7007.0800)</p>	<p>Emissions from unit must be vented to CE 013.</p>	<p>Since the group is controlled by the associated control equipment, no additional periodic monitoring is warranted. See CE 013 for specific parameters.</p>
EU018	<p>Material Usage ≤ 99 gallons/month on a 12-month rolling sum basis (40 CFR 63.801)</p>	<p>Recordkeeping: Daily records of material usage.</p>	<p>Recordkeeping ensures compliance with applicable requirements.</p>
EU 019	<p>a. SO₂: ≤ 0.5 lb/MMBtu with a 3-hour basis (Minn. R. 7011.2300)</p> <p>b. Opacity: $\leq 20\%$ with exceptions (Minn. R. 7011.2300)</p> <p>c. Fuel Restriction: No. 2 Fuel Only (Minn. R. 7005.0100, subp. 35a)</p> <p>d. Hours of operation (Minn. R. 7007.0800)</p>	<p>a. & b.: None</p> <p>c.: Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a daily basis.</p> <p>c. & d. Recordkeeping: Record and maintain records of the type of fuel combusted in the unit and the hours of operation.</p>	<p>As an emergency emissions unit, the Permittee will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by the associated requirements.</p>

EU 020	<p>a. SO₂: ≤ 0.5 lb/MMBtu with a 3-hour basis (Minn. R. 7011.2300)</p> <p>b. Opacity: ≤ 20 % with exceptions (Minn. R. 7011.2300)</p> <p>c. Fuel Restriction: No. 2 Fuel Only (Minn. R. 7005.0100, subp. 35a)</p> <p>d. Hours of operation (Minn. R. 7007.0800)</p>	<p>a. & b.: None</p> <p>c.: Recordkeeping: Record and maintain records of the type of fuel combusted in the unit on a daily basis.</p> <p>c. & d. Recordkeeping: Record and maintain records of the type of fuel combusted in the unit and the hours of operation.</p>	As an emergency emissions unit, the Permittee will demonstrate that the emission units are and will continue to operate such that the emissions are well below the emission limits by the associated requirements.
EU022	Material Usage ≤1000 gallons/year on a 12-month rolling sum basis (40 CFR 63.4681, and Minn. R. 7007.0800)	Recordkeeping: Monthly and daily records of material usage.	Recordkeeping ensures compliance with applicable requirements.
CE 009	a. Cyclone must be maintained to achieve a combined control efficiency with CE 010 of 61% control efficiency or greater for PM/PM10 (see GP005) (Minn. R. 7007.0800)	Recordkeeping: O & M and inspections.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
CE 010	a. EFB must be maintained to achieve a combined control efficiency with CE 009 of 61% control efficiency or greater for PM/PM10 (see GP005) (Minn. R. 7007.0800)	Recordkeeping: O & M inspections and visible emissions.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
CE 011	PM/PM10: the fabric filters must be maintained to achieve 99%control efficiency or greater (Minn. R. 7007.0800)	Recordkeeping: O & M inspections and visible emissions.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
CE 012	PM/PM10: the fabric filters must be maintained to achieve 79%control	Recordkeeping: O & M inspections and visible emissions.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is

	efficiency or greater (Minn. R. 7007.0800)		adequate to have a reasonable assurance of compliance.
CE 013	PM/PM10: the fabric filters must be maintained to achieve 84% control efficiency or greater (Minn. R. 7007.0800)	Recordkeeping: O & M inspections and visible emissions.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.
CE 014	PM/PM10: the fabric filters must be maintained to achieve 84% control efficiency or greater (Minn. R. 7007.0800)	Recordkeeping: O & M inspections and visible emissions. Performance Testing: Due 180 days after permit issuance.	Monitoring based on the requirements from Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.

3.3 Insignificant Activities

The Permittee has several operations, which are classified as insignificant activities. These are listed in Appendix A to the permit. These Insignificant Emission Units (IEU) are subject to the state general applicable requirements. It is our belief that IEU's listed in Appendix A to the permit associated with inconsequential environmental impacts and present little potential for violations of generally applicable requirements, therefore no monitoring will be required.

3.4 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One item that deviates from guidance is the listing of certain applicable requirements at the group level even though they apply at the individual unit or control device. In general, limits that apply to individual pieces of equipment should be tracked at the unit level or stack/vent level and should not be listed as a GP. The main reason is if there is noncompliance with a limit by one unit within the group, the computer system would say the whole group was out of compliance.

One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be tracked (e.g., limits, submittals, etc.), should be in Table A or B. The main reason is that the appendices are word processing sections and are not part of the tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

3.5 Modeling

A large group of facilities were modeled, using a screen level analysis, for compliance with NAAQS as part of the Capped Emissions Permit rulemaking. The resulting data indicated the need for a closer look at approximately 140 sources, including the permittee. Additional screening modeling was performed by the MPCA for the permittee using site specific information such as stack heights and emission rates. The results continue to indicate that the permittee may not be compliant with the NAAQS for PM₁₀. The permittee is required to submit a modeling protocol and conduct the modeling after permit issuance to resolve this issue. The facility will have to demonstrate compliance with the NAAQS.

3.6 Comments Received

Initial Public Notice Period: August 12, 2005 – September 12, 2005

During the Initial Public Notice Period, the facility submitted a comment letter for which the MPCA responded as provided in the attached. The MPCA's response (attached) resolves the issues presented in the comment letter.

Re-notice Public Notice Period: December 30, 2005 – January 30, 2006

No comments were received during the comment period.

4. Conclusion

Based on the information provided by Hill Wood Products Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700030-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules. This permit is being issued under Title V issuance goals.

Staff Members on Permit Team:

Permit writer/Engineer: Wenck Associates, Inc under MPCA Contract A55433,
Work Order No: PEWE0401.

MPCA Contracting Contact: Steve Gorg, M.S., P.E.

Enforcement Staff: Bob Beresford

Peer Reviewer: Margaret Bartz

Modeling: Gregg Pratt

Support Staff: Laurie O'Brien

Data Entry: Beckie Olson

Attachments: A IPER Calculations
B PTE Summary and Calculation Spreadsheets
C Stack Testing
D MPCA's letter to Hill Wood Products dated May 16, 1996
E MPCA's Response to Comments

Attachment A
IPER Calculations

Attachment B

Emission Calculations

Attachment C

Stack Testing

Table C-1
Stack Testing

Emission Unit	Operational Limit	Performance Test Summary	Applicable Requirement
EU001 and EU002 Boilers #1 and #2	4.63 MMBtu/hr for Boiler #1 and 5.06 MMBtu/hr for Boiler #2, or a combined heat input of 9.69 MMBtu/hr	Dec. 2-3, 1992 performance test (most recent boilers stack test for PM); PM emissions of 82.5% of the standard while operating at 72% of boilers capacity.	Minn. R. 7011.0510
EU012, Dryer	Dryer Heat Input Rate of 16.5 MM Btu/hr, Drying Rate of 22,613 lb/hr,	August 22, 1995 performance test (most recent dryer CO stack test); CO emissions of 54 lb/hr. Correspondence with Hill indicates the dryer has a capacity of 40 MM Btu/hr and a drying rate of 26,000 ton dry wood/hr.	Title I Condition to maintain synthetic minor PSD modification

Table C-2

Summary of Stack Testing Performed at the Hill Wood Products

Emission Unit	Date of Test	Pollutant	Test Result	Tested Rates/Comments
EU001, Boiler 1 and EU002, Boiler 2 (SV001)	Apr. 20-21, 1989	PM	1.71 lb/MM Btu	Test Report not located, results obtained from PCA correspondence
		Opacity	39.2% 27.5%	
		CO	98 lb/hr	
	Dec. 2-3, 1992	PM	0.33 lb/MM Btu	Boiler 1 Heat Input Rate of 4.63 MM Btu/hr Boiler 2 Heat Input Rate of 5.06 MM Btu/hr
		CO	15.2 lb/hr	
	Mar. 23, 1993	Opacity	<5%	Boiler 1 Heat Input Rate of 4.63 MM Btu/hr Boiler 2 Heat Input Rate of 5.06 MM Btu/hr
		CO	5.2 lb/hr (2.0 lb/hr for Boiler 1, 3.2 lb/hr for Boiler 2)	
EU012, Dryer	Oct. 9, 1987	PM	48.08 lb/hr	23,600 lb/hr production rate
		Formaldehyde	2.3 lb/hr	
	Apr. 20-21, 1989	PM	33.8 lb/hr	18,600 lb/hr production rate 1740 lb/hr fuel feed rate (Air permit issued Sept. 29, 1988 with dryer operating temperature limit of 1000 °F).
		CO	141 lb/hr	
	Aug. 22, 1991	PM	Complied with State Rules, specific result not obtained	Test report not located, results obtained from PCA correspondence. (EFB and cyclone installed on the dryer in 1991.)
		CO	24.4 lb/hr	
	Oct. 26-27, 1994	PM	0.021 gr/dscf	15.5 MM Btu/hr heat input 1833 lb/hr fuel feed rate 23,333 lb/hr dry processing rate
		Opacity	12.5%	
		CO	30.3 lb/hr	
		VOC	1.0 lb/ton	
		Formaldehyde	3.4 lb/hr	
	Aug. 22, 1995	CO	54 lb/hr	16.5 MM Btu/hr heat input 1944 lb/hr fuel feed rate 22,613 lb/hr dry processing rate
	Dec. 20, 1995	CO	27.7 lb/hr	22,169 lbs/hr production rate 1,875 lbs/hr fuel use

Attachment D

MPCA's letter to Hill Wood Products dated May 16, 1996

Attachment E

MPCA's Response to Comments

