

AIR EMISSION PERMIT NO. 13700083-002

IS ISSUED TO

Potlatch Corporation

Potlatch - Cook
9358 U.S. Highway 53
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/Application Type	Permit/Application Date
Facility Operating Permit (13700083-002)	March 9, 1995 (Part 70 Application received April 13, 1995)
Expansion Permit Amd. (13700083-007)	January 17, 1996
Contravening Permit Amendment	June 16, 1997
Revised Expansion Permit Amd. App.	December 22, 1997
Administrative, Contravening, Major, Major Amendments	November 9, 2000; November 27, 2000; November 29, 2001; January 25, 2002

This permit authorizes the permittee to operate and modify 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 as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; PSD/NSR

Issue Date: December 18, 2002

Expiration: June 24, 2003

All Title I Conditions do not expire.

Ann M. Foss
Major Facilities Section Manager
Majors and Remediation Division

For Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

Appendix: Insignificant Activities

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 limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Potlatch Corporation, Wood Products Division, owns and operates an oriented strand board (OSB) manufacturing facility located at U.S. Highway 53, about five miles south of Cook, St. Louis County, Minnesota. OSB is a wood panel product widely used in the building industry. The plant is located on an approximately 450 acre site in a rural wooded area.

The plant was originally issued an air quality permit under the federal Prevention of Significant Deterioration (PSD) regulations in 1979, to construct and operate the plant. In 1985, a total facility operating permit was issued again as a synthetic minor PSD source. On March 9, 1995, the plant was issued a total facility PSD permit (Air Emission Permit No. 13700083-002). Potlatch is proposing to expand the manufacturing capacity at its Cook plant. Previously, a PSD expansion permit was issued on January 17, 1996, (Air Emission Permit No. 13700083-007). However, prior to completing construction of this expanded plant, new technological improvements were quantified and thus a new permit application was submitted on December 22, 1997. The permit (Air Emission Permit No. 13700083-001) is for the total facility and covers all significant emissions units that the expanded plant will have.

The air emission units that will exist at this expanded facility will consist of four rotary wood wafer dryers, one conveyor-type wood wafer dryer, two steam generating boilers, one thermal oil heater, one board press, and seven wood waste handling operations. The rotary wood wafer dryers are controlled by simple cyclones, wet electrostatic precipitators, and a thermal oxidizer. The conveyor-type wood wafer dryer will be controlled by combusting the exhaust from Zone 1 in the thermal oil heater and by exhausting Zones 2 and 3 through a simple cyclone. The boilers are controlled by multiclones and a dry electrostatic precipitator. The thermal oil heater will be controlled by a multiclone and a dry electrostatic precipitator. The board press will be controlled by a thermal oxidizer. Wood waste handling operations will be controlled by fabric filters.

This amendment (-002) addresses the following:

- 1) This permit authorizes the operation of the Thermal Oxidizer (TO) to operate at a lower temperature with catalytic media. It may also operate without the catalyst at a higher temperature.
- 2) This permit reflects the addition of a second emergency generator. It also reflects the 175 hour per year and times of operation limitations.
- 3) This permit removes the low pressure baghouse and green end baghouse from GP 005 and creates their own set of requirements.
- 4) This permit authorizes the increase of PM₁₀ emissions on the zones 2 and 3 conveyor (SV 002) from 2.62 to 4.90 lb/hr.
- 5) This amendment deletes CE 019 which was never built.
- 6) This amendment revises the press stack temperature (SV 005).

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Potlatch - Cook
 Permit Number: 13700083 - 002

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
Stack Parameter Changes: The Permittee must submit to the agency for approval any revisions to the stack parameters (not already reflected in the permit application), which were assumed in the air quality dispersion modeling conducted for the expansion project, no later than 60 days prior to beginning actual construction of the change. The stack parameters include stack height, temperature, velocity, diameter, location, and orientation.	Title I Condition: 40 CFR Section 52.21 relied upon in dispersion modeling analysis
Property Line Fencing: the Permittee shall maintain the fencing and gates which have previously been installed to enclose the boundaries of the property. The property shall be enclosed with a continuous fence, excluding access points, and shall have installed gates or a guard at each access point, except as described below. The Permittee shall thereafter keep the gates closed unless: 1) A guard is present controlling access at a gate; or 2) Authorized persons are entering or leaving the property through a gate. Access points such as a railroad shall be patrolled and shall be posted with "No Trespassing" signs. The Permittee shall inspect the fencing and gates once per year to ensure compliance with access control. The Permittee shall complete all repairs and maintenance to the fencing and gates as soon as possible but no later than 30 days after the Permittee observes the need for repair or maintenance.	Minn. R. 7007.0800, subp. 2
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A and/or B.	Minn. R. ch. 7017
The following U.S. EPA reference methods (as amended) shall be used, with any modifications required by an applicable requirement, when conducting performance tests pursuant to this permit, unless an applicable requirement specifies a different method: Method 5, as amended by Minn. R. 7011.0725, for Total Particulate Matter Methods 201A and 202 for PM10 Method 6 or Method 6C for SO2 Method 7 or Method 7E for NOx Method 9 for Opacity Method 10 for Carbon Monoxide Method 25 or Method 25A (with optional Methane correction) for VOC A minor change or an alternative or equivalent method may be approved by the Commissioner in accordance with Minn. R. 7017.2050, subp. 2.	Minn. R. 7007.0800, subp. 2; and Minn. R. 7017.2050, subp. 1
Operating and/or production limits may be placed on emission units based on operating conditions during compliance testing. Limits set as a result of a compliance test (conducted before or after permit issuance) apply until new operating/production limits are set following formal review of a performance test as specified by Minn. R. 7017.2025.	Minn. R. 7017.2025
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
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 and/or B, 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)
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

<p>Shutdowns: 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>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>Breakdowns: 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>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>Notification of Deviations Endangering Human Health or the Environment: In the event of any deviation, as defined in part 7007.0100, subpart 8a, which could endanger human health or the environment, notify, orally or in writing, the commissioner or the state duty officer as soon as possible after discovery of the deviation. Within two working days of the discovery, submit to the commissioner a written description of the deviation stating:</p> <ul style="list-style-type: none"> A. the cause of the deviation; B. the exact dates of the period of the deviation, if the deviation has been corrected; C. whether or not the deviation has been corrected; D. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and E. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. 	<p>Minn. R. 7007.0800, subp. 6(A) and Minn. R. 7019.1000, subp. 1</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)</p>
<p>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.</p>	<p>Minn. R. 7011.0150</p>
<p>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.</p>	<p>Minn. R. 7007.1150 through Minn. R. 7007.1500</p>
<p>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).</p>	<p>Minn. R. 7007.1400, subp. 1(H)</p>
<p>Record keeping: 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.</p>	<p>Minn. R. 7007. 0800, subp. 5(B)</p>
<p>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 chart 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).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Clean Air Act.</p>	<p>Minn. R. 7030.0010 - 7030.0080</p>
<p>Submit: due 90 days after Startup of EU 005 (the conveyor-type wood wafer dryer), a noise monitoring plan that includes monitoring equipment specifications, locations, and time and duration of monitoring events. The plan shall be submitted to the Compliance Tracking Coordinator and shall require the completion of noise monitoring and report submittal within 12 months of initial startup of EU 005. Once approved, the plan shall be considered an enforceable part of this permit. Noise reductions will be required to achieve compliance with Minn. R. 7030.0010 - 7030.0080 if monitoring indicates noise violations.</p>	<p>Minn. R. 7007.0800, subp. 2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Performance Test: due 365 days after Startup of EU 005 (the conveyor-type wood wafer dryer) to measure noise.	Minn. R. 7007.0800, subp. 2
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
The Permittee may be required to submit a Risk Management Plan (RMP) under the federal rule, 40 CFR pt. 68 which was promulgated on June 20, 1996. The rule will require each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, to design and implement an accidental release prevention program. The RMPs must be submitted to a centralized location as specified by US EPA. The Permittee may obtain the RMP submittal information at http://www.epa.gov/swercepp or by calling 1-800-424-9346. These requirements must be complied with no later than the latest of the following dates: (1) June 21, 1999; (2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or (3) The date on which a regulated substance is first present above a threshold quantity in a process.	40 CFR pt. 68

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook
 Permit Number: 13700083 - 002

Subject Item: GP 001 Rotary Wood Wafer Dryers

- Associated Items:** CE 001 Centrifugal Collector - High Efficiency
 CE 002 Centrifugal Collector - High Efficiency
 CE 003 Centrifugal Collector - High Efficiency
 CE 004 Centrifugal Collector - High Efficiency
 CE 005 Electrostatic Precipitator - High Efficiency
 CE 006 Electrostatic Precipitator - High Efficiency
 CE 007 Direct Flame Afterburner w/Heat Exchanger
 EU 001 Rotary Wood Wafer Dryer #1
 EU 002 Rotary Wood Wafer Dryer #2
 EU 003 Rotary Wood Wafer Dryer #3
 EU 004 Rotary Wood Wafer Dryer #4
 SV 001

What to do	Why to do it
Total Particulate Matter: less than or equal to 25.6 lbs/hour (this limit applies to SV 001 until startup of EU 005, the conveyor-type wood wafer dryer).	Title I Condition: 40 CFR 52.21 PSD BACT limit
Particulate Matter < 10 micron: less than or equal to 25.6 lbs/hour (this limit applies to SV 001 until startup of EU 005, the conveyor-type wood wafer dryer).	Title I Condition: 40 CFR 52.21 PSD BACT limit
Total Particulate Matter: less than or equal to 7.08 lbs/hour (this limit applies to SV 001 only after startup of EU 005, the conveyor-type wood wafer dryer).	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis
Particulate Matter < 10 micron: less than or equal to 7.08 lbs/hour (this limit applies to SV 001 only after startup of EU 005, the conveyor-type wood wafer dryer).	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for six minutes in any 60-minute period (this limit applies to SV 001).	Minn. R. 7011.0610, subp. 1.A.(2)
Carbon Monoxide: less than or equal to 10.80 lbs/hour (this limit applies to SV 001).	Title I Condition: 40 CFR 52.21 BACT
Volatile Organic Compounds: less than or equal to 13.20 lbs/hour or 90% destruction efficiency as measured across the inlet and discharge of CE 007, whichever is less stringent (this limit applies to SV 001).	Title I Condition: 40 CFR 52.21 BACT
Nitrogen Oxides: less than or equal to 41.4 lbs/hour (this limit applies to SV 001).	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis
Fuels Allowed: dry wood fuel consisting of treated and clean oriented strand board trim, natural gas, or propane.	Minn. R. 7007.0800, subp. 2
Pollution Control Equipment Requirements:the Permittee shall maintain operation of the cyclones (CE 001 -CE 004), wet electrostatic precipitators (CE 005 and CE 006), and the thermal oxidizer (CE 007) associated with the emission units described above under Associated Items. The Permittee shall operate the wet electrostatic precipitators (CE 005 and CE 006) associated with these emission units with no less than the number of fields on-line as during the most recent performance test that has shown compliance with the particulate matter limit standards described for this Group.	Title I Condition: 40 CFR 52.21 monitoring for PSD BACT limit
Temperature: greater than or equal to 1510 degrees F using 3-hour Rolling Average at the Combustion Chamber of CE007 (the TO) until a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average burner temperature recorded during the most recent performance test where compliance for VOC emissions was demonstrated. For the first 3 hours after TO startup, the continuous average temperature shall be used instead of the 3-hour rolling average.	Title I Condition: 40 CFR 52.21 monitoring for PSD BACT limit
Record Keeping: Once each day while in operation the Permittee shall monitor and record the quench water flow rate and number of electric fields that are on or off in CE 005 and CE 006. The average combustion chamber temperature of CE 007 shall be continuously recorded on a 3-hour rolling average basis.	Minn. R. 7007.0800, subp. 5
Performance Test: due before 12/31/02 to measure total particulate matter, PM10, opacity, carbon monoxide, volatile organic compound, and nitrogen oxide emissions. The test shall be conducted with all four rotary dryers in operation.	Title I Condition: 40 CFR 52.21 Monitoring for PSD BACT limit
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: GP 002 Boilers

- Associated Items:** CE 008 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
 CE 009 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
 CE 010 Electrostatic Precipitator - High Efficiency
 EU 006 Boiler #1
 EU 007 Boiler #2
 SV 003

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.12 lbs/million Btu heat input (this is a combined emission limit for EU 006 and EU 007).	Title I Condition: 40 CFR 52.21 BACT
Particulate Matter < 10 micron: less than or equal to 0.12 lbs/million Btu heat input (this is a combined emission limit for EU 006 and EU 007).	Title I Condition: 40 CFR 52.21 BACT
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for six minutes in any 60-minute period (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.0515, subp. 2
Carbon Monoxide: less than or equal to 0.75 lbs/million Btu heat input (this is a combined emission limit for EU 006 and EU 007).	Title I Condition: 40 CFR 52.21 BACT
Volatile Organic Compounds: less than or equal to 0.25 lbs/million Btu heat input (this is a combined emission limit for EU 006 and EU 007).	Title I Condition: 40 CFR 52.21 BACT
Nitrogen Oxides: less than or equal to 0.4 lbs/million Btu heat input (this is a combined emission limit for EU 006 and EU 007).	Title I Condition: 40 CFR 52.21 BACT
Fuels Allowed: wood waste, propane, natural gas, and up to two percent by weight of the total fuel combusted may consist of of manufacturing residue and/or cellulose-based oil sorbents. The manufacturing residue must be generated on site and may consist of the following: wood flake resin and wax accumulations cleaned from equipment, and confidential office records (paper). In addition, the manufacturing residue shall not contain the following: any hazardous waste listed in Minn. R. 7045.0135, any wastes specified in Minn. R. 7045.0131 as hazardous, or batteries or any other material where mercury has been purposely introduced. Absorbent material from spills containing oil, anti-freeze, water-based paints, or soy or water-based ink may also be combusted. The spilled material other than oil shall not contain: any hazardous waste listed in Minn. R. 7045.0135 or any wastes specified in Minn.R. 7045.0131. The oil in any absorbent shall only be on-specification used oil.	Minn. R. 7007.0800, subp. 2
Record Keeping: The total weights of the manufacturing residue and absorbent material added to the boiler fuel stream shall be recorded weekly. A weekly average shall be determined based on the ratio of manufacturing residue and/or absorbent material placed in the fuel stream to the total calculated amount of fuel fed to the boilers.	Minn. R. 7007.0800, subp. 5
Steam Flow: less than or equal to 110000 tons/year using 12-month Rolling Sum (220 million pounds per year as a 12-month Rolling Sum), total from both boilers (this limit applies until decommissioning of EU 019, the 4 foot board press).	Title I Condition: 40 CFR 52.21 limit relied upon in potential to emit calculations
Steam Flow: less than or equal to 90000 tons/year using 365-day Rolling Sum (180 million pounds per year as a 365-day Rolling Sum), total from both boilers (this limit only applies after decommissioning of EU 019, the 4 foot board press). For the first 365 days of operation with EU 009 operating, the steam flow limitation shall be based upon the following formula: $N < 74,711,539 + 288,461n$ (where N is the cumulative rolling sum steam consumption limit (lbs steam) for day n in the 365 days).	Title I Condition: 40 CFR 52.21 limit relied upon in potential to emit calculations
Steam Flow: less than or equal to 66715 lbs/hour using 8-hour Block Average . This limit is amended whenever a performance test is conducted on this emission unit and the MPCA issues a letter verifying the test results, pursuant to Minn. R. 7017.2025, subp. 3.	Minn. R. 7017.2025
Record Keeping: once each day the Permittee shall record the amount of steam produced each 24-hour period and add it to the previous 364 days total steam production sum to derive the 365 day rolling sum steam production.	Minn. R. 7007.0800, subp. 5
Boiler Pollution Control Equipment Requirement: the Permittee shall operate the electrostatic precipitator (CE 010) associated with these boilers with no less than the number of fields on-line as during the most recent performance test that has shown compliance with the particulate matter limit standard described for this Group.	Title I Condition: 40 CFR 52.21 Monitoring for PSD BACT limit

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Boiler Pollution Control Equipment Record Keeping: the Permittee shall record the minimum number of fields on-line in the electrostatic precipitator (CE 010), once each day while in operation.	Minn. R. 7007.0800, subp. 5
Performance Test: due before 03/31/00 to measure total particulate matter, PM10, opacity, carbon monoxide, nitrogen oxides and volatile organic compound emissions. The test shall be conducted with both boilers in operation and compliance with emission limits shall be based on the sum of the limits for the individual emission units. Testing shall be conducted during the winter in order to achieve a representative high load condition for the boilers.	Title I Condition: 40 CFR 52.21 Monitoring for PSD BACT limit
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: GP 003 Conveyor Dryer/Thermal Oil Heater

- Associated Items:** CE 018 Centrifugal Collector - High Efficiency
 CE 020 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
 CE 021 Electrostatic Precipitator - High Efficiency
 EU 005 Conveyor-Type Wood Wafer Dryer (Zone 1)
 EU 008 Thermal Oil Heater
 SV 002
 SV 004

What to do	Why to do it
Volatile Organic Compounds: less than or equal to 16.6 lbs/hour (this is a combined emission limit for SV 002 and SV 004).	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Initial Performance Test: due 180 days after Startup of EU005 to measure volatile organic compounds. The test can be conducted any time within the initial 180 days.	Title I Condition: 40 CFR 52.21 Monitoring for Title I Condition
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: GP 004 Wood Waste Handling Operations (1)

Associated Items: CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 012 Dillon Baghouse

EU 013 Forming Baghouse

SV 008

What to do	Why to do it
Total Particulate Matter: less than or equal to 2.67 lbs/hour (this is a combined emission limit that applies to both emission units listed above under Associated Items).	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 2.67 lbs/hour (this is a combined emission limit that applies to both emission units listed above under Associated Items).	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis and also BACT
Opacity: less than or equal to 20 percent opacity (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.0715, subp. 1.B.
Pollution Control Equipment Requirements: The Permittee shall maintain operation of fabric filters (CE 013 and CE 014) on each emission unit listed above under Associated Items.	Title I Condition: 40 CFR Section 52.21 PSD BACT for PM and PM-10
Visible Emissions Observation: the Permittee shall observe the emissions from SV 008 (during daylight hours) for visible emissions of particulate matter once each day while in operation. The observers are not required to be Method 9 certified opacity readers.	Title I Condition: 40 CFR Section 52.21 monitoring for Title I Condition
Visible Emissions Corrective Actions: If visible emissions (VEs) are observed the Permittee shall determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Visible Emissions Recordkeeping: the Permittee shall record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Performance Test: due 180 days after Startup of the conveyor-type wood wafer dryer (EU005) to determine combined total particulate matter and PM10 emissions from the baghouse units. The test can be conducted any time within the initial 180 days.	Title I Condition: 40 CFR 52.21 Monitoring for PSD BACT limit
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: GP 006 Emergency Diesel Generators

Associated Items: EU 017 Emergency Diesel Generator #1

EU 020 Emergency Diesel Generator #2

SV 011

SV 015

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been obtained (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.2300, subp. 2
Fuels Allowed: distillate fuel oil only.	Minn. R. 7007.0800, subp. 2
Fuel Usage: less than or equal to 175 hours/year diesel fuel per generator	Minn. R. 7007.0800, subp. 2
Recordkeeping: For the previous month and the previous 12-month period, record: 1) the actual hours of operation, 2) the dates and times of operation, and 3) the reason for operation (i.e., power outage, training, or testing) for each generator. Maintain records on-site.	Minn. R. 7007.0800, subps. 4 and 5
Operational Restrictions: Except for operational tests and training, the emergency generators are to be used only during plant shutdown due to a power outage. During power grid outages, the generators shall only supply power to maintain the facility's lighting and to safely shutdown the rotary dryers, boilers, and heat source for the thermal oil heater.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 005 Conveyor-Type Wood Wafer Dryer (Zone 1)

Associated Items: CE 018 Centrifugal Collector - High Efficiency

GP 003 Conveyor Dryer/Thermal Oil Heater

SV 002

What to do	Why to do it
Total Particulate Matter: less than or equal to 6.58 lbs/hour	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 4.90 lbs/hour	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for six minutes in any 60-minute period.	Minn. R. 7011.0610, subp. 1.A.(2)
Performance Test: due 90 days after Permit Issuance (-002) to measure total particulate matter, PM-10 and opacity. The test can be conducted any time within the 90 days.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 008 Thermal Oil Heater

Associated Items: CE 020 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

CE 021 Electrostatic Precipitator - High Efficiency

GP 003 Conveyor Dryer/Thermal Oil Heater

MR 001

MR 002

MR 003

SV 004

What to do	Why to do it
Total Particulate Matter: less than or equal to 3.85 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 3.68 lbs/hour	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis
Opacity: less than or equal to 20 percent opacity except that a maximum of 27 percent opacity shall be permissible for six minutes in any 60-minute period. The standards do not apply during periods of startup, shutdown, and malfunction.	40 CFR 60.43b(f), 40 CFR 60.11(c), 40 CFR 60.43b(g)
Carbon Monoxide: less than or equal to 21 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Nitrogen Oxides: less than or equal to 0.3 lbs/million Btu heat input using 30-day Rolling Average	Title I Condition: 40 CFR 52.21 BACT
Fuels Allowed: wood waste, propane, natural gas, and up to two percent by weight of the total fuel combusted may consist of of manufacturing residue and/or cellulose-based oil sorbents. The manufacturing residue must be generated on site and may consist of the following: wood flake resin and wax accumulations cleaned from equipment, and confidential office records (paper). In addition, the manufacturing residue shall not contain the following: any hazardous waste listed in Minn. R. 7045.0135, any wastes specified in Minn. R. 7045.0131 as hazardous, or batteries or any other material where mercury has been purposely introduced. Absorbent material from spills containing oil, anti-freeze, water-based paints, or soy or water-based ink may also be combusted. The spilled material other than oil shall not contain: any hazardous waste listed in Minn. R. 7045.0135 or any wastes specified in Minn.R. 7045.0131. The oil in any absorbent shall only be on-specification used oil.	Minn. R. 7007.0800, subp. 2
Record Keeping: once each day the Permittee shall record the amount (in tons or pounds) of each fuel (wood waste, propane, natural gas, manufacturing residue and/or cellulose-based oil sorbents) combusted during each day in EU 008. The annual capacity factor for each fuel type shall be calculated each calendar quarter. The annual capacity shall be determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	40 CFR 60.49b(d); Minn. R. 7007.0800, subp. 5
Pollution Control Equipment Operation and Monitoring: the Permittee shall operate the electrostatic precipitator (CE 021) associated with the thermal oil heater with no less than the number of fields on-line as during the most recent performance test that has shown compliance with the particulate matter limit standard described for EU 008.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Performance Test: due 180 days after Initial Startup but no later than 60 days after achieving the maximum operating rate, to measure NOx emissions from EU 008. This test shall be conducted with the certified continuous emission monitoring system as specified by 40 CFR 60.46b(e).	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4
Initial Performance Test: due 180 days after Initial Startup of EU008 but no later than 60 days after achieving maximum operating rate to measure particulate matter, PM-10, carbon monoxide and opacity.	Minn. R. 7017.2020, subp. 1, 40 CFR 60.8
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4
CEMS Installation: the Permittee shall install a NOx CEMS to measure NOx emissions on SV004 prior to emission unit startup.	40 CFR 60.48b(b)
CEM Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup. The CEMS Certification Test shall be completed before conducting the NOx performance test.	40 CFR 60.13(b)
CEM Certification Test Pretest Meeting: due 7 days before CEM Certification Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test . If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7007.0800, subp. 2
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specifications of 40 CFR pt. 60, Appendix B. The procedures of 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR 60.13(d)(1); Minn. R. 7017.1000, subp.5
Cylinder Gas Audit: due before end of each calendar half-year following CEM Certification Test . Conduct the CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7007.0800, subp. 2
Continuous Operations: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS and COMS shall be in continuous operation.	40 CFR 60.13(e);
Recordkeeping: The Permittee must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5; 40 CFR 60.7(f); 40 CFR 60.49b(g)
Emissions Monitoring: The Permittee shall use a NOx CEMS to measure NOx emissions from SV 004.	40 CFR 60.48b(b)
Records of Startup, Shutdown, or Malfunction: Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR 60.7(b)
COMS Installation: the Permittee shall install a COMS to measure opacity emissions.	40 CFR 60.48b(a)
COMS Certification Test: due 60 days after achieving maximum capacity but no later than 180 days after initial startup. The COMS Certification shall be completed before conducting the opacity performance test.	40 CFR 60.8(a); 40 CFR 60.13(b)
COMS Certification Test Pretest Meeting: due 7 days before COMS Certification Test	Minn. R. 7007.0800, subp. 2
COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR pt. 60, Appendix B.	Minn. R. 7017.1000; 40 CFR 60.13(d)(2)
COMS Calibration Error Audit: due before end of each calendar half-year following COMS Certification Test . Conduct audits at least 3 months apart but no greater than 8 months apart.	Minn. R. 7007.0800, subp. 2
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to 6 minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the 6 minute averaging period.	40 CFR 60.13(e)(1); 40 CFR 60.13(h)
Emissions Monitoring: The Permittee shall use a COMS to measure opacity emissions from SV004.	Minn. R. 7017.1000, subp. 1; 40 CFR 60.48b(a)
Recordkeeping: The Permittee must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7007.0800, subp. 5; 40 CFR 60.7(f)

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 009 Board Press (8 foot)

Associated Items: CE 022 Direct Flame Afterburner w/Heat Exchanger
SV 005

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 3.4 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 3.4 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE, emissions netting calculations, relied upon in dispersion modeling analysis
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for six minutes in any 60-minute period.	Minn. R. 7011.0610, subp. 1.A.(2)
Carbon Monoxide: less than or equal to 4.5 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Volatile Organic Compounds: less than or equal to 2 lbs/hour or 90 percent destruction of the VOCs, whichever is less stringent. The destruction efficiency shall be measured across the inlet and discharge of CE 022.	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
OPERATING CONDITIONS	hdr
Temperature: greater than or equal to 800 degrees F and less than or equal to 1350 degrees F at the Combustion Chamber of CE022 while operating with catalyst 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 for VOC emissions was demonstrated. For the first 3 hours after TO startup, the continuous average temperature shall be used instead of the 3-hour rolling average.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Temperature: greater than or equal to 1500 degrees F using 3-hour Rolling Average at the Combustion Chamber of CE022 while operating without catalyst 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 for VOC emissions was demonstrated. For the first 3 hours after TO startup, the continuous average temperature shall be used instead of the 3-hour rolling average.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Record Keeping: If the 3-hour rolling average temperature drops below the minimum temperature limit, the VOC emitted during that time shall be considered uncontrolled until the average minimum temperature limit is once again achieved. This shall be reported as a deviation. The Permittee shall maintain a continuous hard copy readout or electronic file of the combustion chamber temperatures and the calculated 3-hour rolling averages.	Minn. R. 7007.0800, subp. 5
Corrective Actions: If the temperature drops outside the range above (for the appropriate mode of operation of the thermal oxidizer) the Permittee shall take corrective action as soon as possible to return the temperature to the proper range. Corrective actions include, but are not limited to, those outlined in the O & M plan for CE022. The Permittee shall keep a record of the type and date of all corrective actions taken.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
<p>Catalyst Activity Testing: while operating CE022 in catalytic mode the Permittee shall:</p> <p>1) Take a sample of the catalytic media and have it analyzed according to the manufacturers specifications once a year for the first 3 years after initial startup of CE 022.</p> <p>2) After the first 3 years of operation in catalytic mode the Permittee may change to a catalytic media sampling and analysis schedule of once every 2 years unless the destruction efficiency of any sample is shown to be less than 95%. If the destruction efficiency is less than 95%, the frequency of sampling and analysis shall revert to once per year until the destruction efficiency rises above 95%.</p>	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

<p>Catalyst Activity Testing: continued - part 2,</p> <p>3) If any of the samples in items 1) - 2) fail to achieve 90% destruction efficiency the permittee may: A) clean or otherwise rehabilitate the media and then resample and reanalyze the media within 30 days of receiving notification that the media was not able to achieve 90% destruction efficiency, OR B) replace the media and then sample and analyze the media within 1 year, OR C) operate the unit without catalyst by raising the temperature to 1500 deg. F within 2 days of receiving notification that the media was not able to achieve 90% VOC destruction efficiency and also conduct a stack test within 90 days of receiving notification that the media was not able to achieve 90% VOC destruction efficiency.</p> <p>4) replace the volume of catalytic media taken for analysis with an equivalent volume of new catalytic media.</p>	<p>Title I Condition: 40 CFR 52.21 monitoring for Title I Condition</p>
<p>Catalyst Activity Testing: continued - part 3,</p> <p>5) If after operating the unit as without catalyst the Permittee wants to revert to catalytic operation, the Permittee shall conduct a stack test within 60 days of adding new catalytic media. Until the stack test results are obtained and reviewed by the MPCA the Permittee shall operate the catalytic unit at the temperature equal to or greater than the last performance test that demonstrated compliance for this unit while it was operating in catalytic mode.</p> <p>6) Record the date whenever the control equipment mode of operation is switched from either as without catalyst to with catalyst or with catalyst to as without catalyst.</p> <p>7) stack tests not specified in items 1) - 5), shall be required once every 5 years after permit issuance (-002)</p> <p>8) maintain records of all of the activities taken under items 1) - 6)</p>	<p>Title I Condition: 40 CFR 52.21 monitoring for Title I Condition</p>
<p>Pollution Control Equipment Requirement: the Permittee shall operate and maintain the direct flame afterburner w/heat exchanger (CE 022) associated with the emission unit described above under Associated Items.</p>	<p>Title I Condition: 40 CFR 52.21 monitoring for Title I Condition</p>
<p>TESTING</p>	<p>hdr</p>
<p>Performance Test: due 180 days after Initial Startup of conveyor-type wood wafer dryer (EU 005) to measure total particulate matter, PM10, carbon monoxide, opacity and volatile organic compound emissions. The test can be conducted any time within the initial 180 days.</p>	<p>Title I Condition: 40 CFR 52.21 monitoring for Title I Condition</p>
<p>Performance Test Pre-test Meeting: due 7 days before Performance Test</p>	<p>Minn. R. 7017.2030, subp. 4</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 010 Sander Baghouse

Associated Items: CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 006

What to do	Why to do it
Total Particulate Matter: less than or equal to 1.65 lbs/hour	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 1.65 lbs/hour	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis and also BACT
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1.B.
Pollution Control Equipment Requirements: The Permittee shall maintain operation of fabric filter (CE 011) on the sander (EU 010).	Title I Condition: 40 CFR Section 52.21 PSD BACT for PM and PM-10
Visible Emissions Observation: the Permittee shall observe the emissions from SV 006 (during daylight hours) for visible emissions of particulate matter once each day while in operation. The observers are not required to be Method 9 certified opacity readers.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Visible Emissions Corrective Actions: If visible emissions (VEs) are observed the Permittee shall determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Visible Emissions Recordkeeping: the Permittee shall record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Performance Test: due 365 days after Startup of EU009 (the 8 foot board press) to determine total particulate matter and PM10 emissions. The test can be conducted any time within the initial 365 days.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 011 Sawline Baghouse

Associated Items: CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 007

What to do	Why to do it
Total Particulate Matter: less than or equal to 1.37 lbs/hour	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 1.37 lbs/hour	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis and also BACT
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1.B.
Pollution Control Equipment Requirements: The Permittee shall maintain operation of fabric filter (CE 012) on the sawline (EU 011).	Title I Condition: 40 CFR Section 52.21 PSD BACT for PM and PM-10
Visible Emissions Observation: the Permittee shall observe the emissions from SV 007 (during daylight hours) for visible emissions of particulate matter once each day while in operation. The observers are not required to be Method 9 certified opacity readers.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Visible Emissions Corrective Actions: If visible emissions (VEs) are observed the Permittee shall determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Visible Emissions Recordkeeping: the Permittee shall record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Performance Test: due 365 days after Startup of EU009 (the 8 foot board press) to determine total particulate matter and PM10 emissions. The test can be conducted any time within the initial 365 days.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 014 Green End/Dryer Baghouse

Associated Items: CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 014

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.70 lbs/hour for SV014.	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 0.70 lbs/hour for SV014.	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis and also BACT
Opacity: less than or equal to 20 percent opacity (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.0715, subp. 1.B.
Pollution Control Equipment Requirements: The Permittee shall maintain operation of fabric filter (CE 015) on SV 014.	Title I Condition: 40 CFR Section 52.21 PSD BACT for PM and PM-10
Visible Emissions Observation: the Permittee shall observe the emissions from SV 014 (during daylight hours) for visible emissions of particulate matter once each day while in operation. The observers are not required to be Method 9 certified opacity readers.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Visible Emissions Corrective Actions: If visible emissions (VEs) are observed the Permittee shall determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Visible Emissions Recordkeeping: the Permittee shall record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 015 Low Pressure Baghouse

Associated Items: CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 009

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.67 lbs/hour for SV009.	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 0.67 lbs/hour for SV009.	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis and also BACT
Opacity: less than or equal to 20 percent opacity (this limit applies individually to each emission unit listed above under Associated Items).	Minn. R. 7011.0715, subp. 1.B.
Pollution Control Equipment Requirements: The Permittee shall maintain operation of fabric filter (CE 016) on SV 009.	Title I Condition: 40 CFR Section 52.21 PSD BACT for PM and PM-10
Visible Emissions Observation: the Permittee shall observe the emissions from SV 009 (during daylight hours) for visible emissions of particulate matter once each day while in operation. The observers are not required to be Method 9 certified opacity readers.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Visible Emissions Corrective Actions: If visible emissions (VEs) are observed the Permittee shall determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Visible Emissions Recordkeeping: the Permittee shall record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 016 High Pressure Baghouse

Associated Items: CE 017 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 010

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.21 lbs/hour	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 0.21 lbs/hour	Title I Condition: 40 CFR 52.21 limit relied upon in dispersion modeling analysis and also BACT
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1.B.
Pollution Control Equipment Requirements: The Permittee shall maintain operation of fabric filter (CE 017) on the high pressure system (EU 016).	Title I Condition: 40 CFR Section 52.21 PSD BACT for PM and PM-10
Visible Emissions Observation: the Permittee shall observe the emissions from SV 010 (during daylight hours) for visible emissions of particulate matter once each day while in operation. The observers are not required to be Method 9 certified opacity readers.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Visible Emissions Corrective Actions: If visible emissions (VEs) are observed the Permittee shall determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Visible Emissions Recordkeeping: the Permittee shall record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5
Performance Test: due before 06/30/03 to determine total particulate matter and PM10 emissions.	Title I Condition: 40 CFR 52.21 monitoring for Title I Condition
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Subject Item: EU 019 Board Press (4 foot)

Associated Items: SV 013

What to do	Why to do it
Total Particulate Matter: less than or equal to 13.2 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Particulate Matter < 10 micron: less than or equal to 13.2 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for six minutes in any 60-minute period.	Minn. R. 7011.0715, subp. 1.B.
Carbon Monoxide: less than or equal to 3.00 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Volatile Organic Compounds: less than or equal to 30.00 lbs/hour	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Production Limitation: the Permittee shall limit board press production to less than or equal to 20 tons finished product per hour on a 30-day rolling average.	Title I Condition: 40 CFR 52.21 limit was basis for PTE and emissions netting calculations
Shut Down of Emission Unit: The emission unit shall be decommissioned (defined as being disconnected from its steam source) and removed from production upon startup of the 8 foot board press (EU 009).	Title I Condition: 40 CFR 52.21 basis for PTE and emissions netting calculations.

TABLE B: SUBMITTALS

12/18/02

Facility Name: Potlatch - Cook
Permit Number: 13700083 - 002

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:

Permit Technical Advisor
Permit Section
Air Quality 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:

Supervisor
Compliance Determination Unit
Air Quality 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

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
CEM Certification Test Notification	due 30 days before CEM Certification Test	EU008
CEM Certification Test Plan	due 30 days before CEM Certification Test	EU008
CEM Certification Test Report - Microfiche Copy	due 105 days after CEM Certification Test	EU008
CEM Certification Test Report	due 45 days after CEM Certification Test	EU008
COMS Certification Test Notification	due 30 days before COMS Certification Test	EU008
COMS Certification Test Plan	due 30 days before COMS Certification Test	EU008
COMS Certification Test Report - Microfiche Copy	due 105 days after COMS Certification Test	EU008
COMS Certification Test Report	due 45 days after COMS Certification Test	EU008
Fugitive Control Plan	due 60 days after Permit Issuance for review and approval. The plan shall carry forward the concepts from section 6.16 of previous permit #13700083-002 and shall identify all fugitive dust 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 Agency's approval. If the Agency determines the Permittee is out of compliance with the fugitive dust control plan, then the Permittee may be required to amend the control plan and/or install and operate particulate matter ambient monitors.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU005, EU009
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup . Submit 1) the name and number of the unit, 2) the heat design input capacity and identification of fuels to be combusted, 3) the annual capacity factor at which the Permittee anticipates operating (based on all fuels and individual fuels), and 4) the actual date of initial startup.	EU008
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of EU014	EU014, EU015
Notification of the Anticipated Date of Initial Startup	due 30 days before Anticipated Date of Initial Startup . Submit the name and number of the unit and the anticipated date of initial startup.	EU008
Notification of the Date Construction Began	due 30 days after Start Of Construction . Submit the name and number of the unit and the date construction began.	EU008
Notification of the date of Equipment Removal/Dismantlement	due 15 days after Equipment Removal and/or Dismantlement (defined as being disconnected from its steam source). The intent of this requirement is to notify the agency within 15 days of the emission unit being removed from production service.	EU019
Operation and Maintenance Plan	due 90 days after Permit Issuance summarizing the operation and maintenance for all pollution control equipment. Included in the plan should be the manufacturer's recommended operating ranges for parameters such as pressure drop across the system, liquid flow rate, liquid supply pressure, etc.; corrective action procedures to be followed to return the control equipment to within specified range(s); corrective action procedures to be followed in the event of a malfunction or breakdown; a description of inspection procedures to be followed; and records kept to demonstrate plan implementation.	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test	EU005, EU008, GP003

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

Performance Test Notification (written)	due 30 days before Performance Test	EU008, EU009, EU010, EU011, EU016, GP001, GP002, GP004
Performance Test Plan	due 30 days before Initial Performance Test	EU005, EU008, GP003
Performance Test Plan	due 30 days before Performance Test	EU008, EU009, EU010, EU011, EU016, GP001, GP002, GP004
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test	EU005, EU008, GP003
Performance Test Report - Microfiche Copy	due 105 days after Performance Test	EU008, EU009, EU010, EU011, EU016, GP001, GP002, GP004
Performance Test Report	due 45 days after Initial Performance Test	EU005, EU008, GP003
Performance Test Report	due 45 days after Performance Test	EU008, EU009, EU010, EU011, EU016, GP001, GP002, GP004
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	EU008
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of the calendar quarter in which the Audit was performed .	EU008
Testing Frequency Plan	due 60 days after Initial Performance Test under this permit. The testing frequency for subsequent performance tests will be based on the MPCA guidance that is in effect at the time of the Performance test, and changes may be agreed between the Agency and Permittee. Test frequency parameters may be proposed in the written Performance Test Notification or Test Plan, and reviewed during the Performance Test Pre-test Meeting.	EU008, EU009, EU010, EU011, EU014, EU015, EU016, GP003, GP004
Testing Frequency Plan	due 60 days after Performance Test (permit -002 requirement). The testing frequency for subsequent performance tests will be based on the MPCA guidance that is in effect at the time of the Performance test, and changes may be agreed between the Agency and Permittee. Test frequency parameters may be proposed in the written Performance Test Notification or Test Plan, and reviewed during the Performance Test Pre-test Meeting.	EU005

TABLE B: RECURRENT SUBMITTALS

12/18/02

Facility Name: Potlatch - Cook

Permit Number: 13700083 - 002

What to send	When to send	Portion of Facility Affected
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following CEM Certification Test and COMS Certification Test (Submit Deviations Reporting Form DRF-1 as amended). The EER must contain all of the information requested in 40 CFR Section 60.7(c). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. In addition, the EER shall include the items specified in 40 CFR 60.49b(g).	EU008
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit	EU008
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar half-year following Cylinder Gas Audit (CGA).	EU008
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 period of each calendar year covers January 1 - June 30. The second report period 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). The report covers all deviations experienced during the calendar year. To be submitted to the Agency on a form approved by the Commissioner. A copy of this certification shall also be sent to Mr George Czerniak of the U.S. EPA Region 5.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	Total Facility

APPENDIX MATERIAL

Facility Name:Potlatch - Cook

Permit Number: 13700083-002

Insignificant Activities and General Applicable Requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R. 7007.1300, subp.	Rule Description of the Activity	General Applicable Requirement
3(I)	Individual emissions units at a stationary source, each of which have a PTE of the following pollutants in amounts less than: 2 tpy of CO and 1 tpy each of NO _x , SO ₂ , PM/PM ₁₀ , VOC, and ozone: 1 –Radial Stacker	Minn. R. 7011.0715 (PM and opacity)
3(I)	Individual emissions units at a stationary source, each of which have a PTE of the following pollutants in amounts less than: 2 tpy of CO and 1 tpy each of NO _x , SO ₂ , PM/PM ₁₀ , VOC, and ozone: Individual Bark Storage Piles	Minn. R. 7011.0150
3(J)	Fugitive Emissions from roads and parking lots.	Minn. R. 7011.0150
4	Insignificant Activities required to be listed : 1 - Propane Vaporizer 1 – Fire Pump	Minn. R. 7011.0515 (PM and opacity)

Under Minn. R. 7007.1250, subp. 1(A), the Permittee may add insignificant activities to the stationary source throughout the term of the permit without getting permit amendments. Certain exclusions apply and are listed in Minn. R. 7007.1250, subp. 2.

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 13700083-002

This technical support document is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 2493)
Potlatch Corporation 9358 U.S. Highway 53 Cook, Minnesota 55723 (218) 666-5246	Potlatch Corporation 9358 U.S. Highway 53 Cook, Minnesota 55723 St. Louis County

1.2. Description of the Facility

Potlatch Corporation, Minnesota Wood Products Division, owns and operates an Oriented Strand Board (OSB) manufacturing facility located at U.S. Highway 53, about five miles south of Cook, St. Louis County, Minnesota (Plant). OSB is a wood panel product widely used in the building industry. The Plant is located on an approximately 450 acre site in a rural wooded area.

The Plant was originally issued an air quality permit under the federal Prevention of Significant Deterioration (PSD) regulations in 1979, to construct and operate the Plant. In 1985, the Minnesota Pollution Control Agency (MPCA) issued a Total Facility operating permit which listed the Plant as a synthetic minor PSD source. On March 9, 1995, the Plant was issued a backward-looking PSD total facility operating permit (Air Emission Permit No. 13700083-002). Potlatch went through an expansion for which it obtained a PSD permit (Air Emission Permit No. 13700083-007 issued on January 17, 1996). However, prior to completing construction of this expanded plant, new technological improvements were quantified and thus a new permit application was submitted on December 22, 1997. A subsequent permit (Air Emission Permit No. 13700083-001 issued on June 24, 1998), was a Title V permit for the total facility and covered all significant emission units that the expanded plant would have. The permit action numbering system started over at action -001 because the new permit is in our Delta system which started the numbering system over again.

1.3. Description of the Activities Addressed by This Permit Action (-002)

This permit action (-002) is a summation of all the following:

1) Thermal Oxidizer

This permit authorizes the operation of the Thermal Oxidizer (TO), which reduces air pollutant emissions from the press, to operate at a lower temperature with catalytic media. Additional monitoring requirements are necessary while operating in catalytic mode, including sampling and testing of the catalytic media. These requirements have been added to this permit. Based on a recent performance test, the control unit can operate within existing permit emission limit requirements while operating in catalytic mode.

2) Emergency Generators

This permit reflects the addition of a second emergency generator and addresses the way an existing emergency generator will be treated in the permit. On November 9, 2000, Potlatch Corporation sent a letter with two main issues: 1) the permit requirements for the addition of a second emergency diesel generator, and 2) whether this generator and an existing generator need to be included in the facility's Title V permit. In the December 22, 2000, the MPCA provided that the new generator could qualify as an Insignificant Activity modification. The addition of the second generator is reflected in this permit action (-002). Potlatch submitted site specific data to support the use of an operating hour figure of 130 hours per year instead of the U.S. Environmental Protection Agency (EPA) default of 500 hours per year. Potlatch utilized the 130 hours of operation to define the maximum capacity of the emergency generators in its potential to emit calculation. The 130 hours was a number based on historical usage plus a factor. The second generator was included in the updated dispersion modeling for the previous PSD permit (-001). Based on the potential to emit at 175 hours per year, the two generators qualify as insignificant activity emission units (< 1 tpy). Due to the restrictions of 175 hours per year and the time of operation, however, state limits are required. These limits are reflected in this permit (-002).

3) Low Pressure (LP) Baghouse/Green End/Dryer Baghouse

As background, this amendment also reflects two previous permit applications that were submitted in late 2000. The 1997 application documents were based on the emission limit of 1.37 lb/hr for both particulate matter (PM) and particulate matter less than 10 microns (PM₁₀) for SV 009. The 1997 permit, however, had a combined PM/PM₁₀ limit of 0.91 lb/hr out of SV 009. That limit applied to both baghouses that emitted through the common SV 009. On November 9, 2000, an administrative amendment was requested concerning this combined limit (SV 009). This administrative amendment requested a correction to a typographical error in Air Emission Permit 13700083-001. Hence, this was not an increase in the emission rate. The combined limit should have

been 1.37 lb/hr for both PM/PM₁₀. This request was granted in the December 22, 2000, correspondence. See Attachment 1 for more details. This modification is reflected in this permit action.

The second previous application change involved the facility design that happened after the permit for the plant expansion was received. The November 27, 2000, Contravening Permit Terms Application sought to correct the stack parameters and included a revised dispersion modeling. The change involved the separation of one stack (SV 009) into two (SV 009 & SV 014). In other words, EU 014 and EU 015 were separated into two emission units at two different locations with two separate stacks. This is due to “as-built” differences in the location of EU 014. Within GP 005, this resulted in separate emission limits being given to each baghouse stack vent. The combined total of the two units (1.37 lb/hr) equaled the previous combined total for the original SV 009.

Dispersion modeling of the new location was approved. Accordingly, this modification was approved in the December 22, 2000, letter. The modified permit was to have shown the two stack vents, listed separately in GP 005.

The administrative and contravening amendments are reflected in this major amendment action (-002).

4) January 2002 Major Amendment Application

On January 2002, Potlatch submitted a major permit application. In this application, the requests included:

- i) Potlatch requested to increase the PM₁₀ emission limit on the zones 2 and 3 conveyor (SV 002) exhaust from 2.62 to 4.90 lb/hr. During several performance tests, Potlatch was unable to achieve the 2.62 lb/hr limit. The potential “net” increase in PM₁₀ emissions resulting from the expansion remained below 15 tons per year. Because this is a change in a netting analysis, a major amendment was required.
- ii) Potlatch now requested to separate the emission units that applied to the Low Pressure Baghouse (SV 009) and the Green End Baghouse (SV 014). Previously, this emission limit was to be listed as a combined total limit for both stacks within GP 005. Each stack will now have its own individual set of requirements. The GP 005 requirements are incorporated into EU 014 and EU 015 requirements. Then GP 005 is removed from Delta. Again, there will not be any change in total emissions as a result of this change.
- iii) Potlatch requested to update the listing of insignificant activities.
- iv) The air dispersion modeling revises the press stack temperature (SV 005). This is to reflect the installation of the thermal oxidizer and allow for a lower stack exhaust temperature.

February 28, 2002, Permit Amendment Application

On February 28, 2002, Potlatch submitted another permit application. In this application, Potlatch requested that CE 019 be deleted from the permit. CE 019 was never built.

This major amendment (-002) addresses and reflects the above permit application requests.

1.4 Description of all permits issued since the facility was built

Permit Number and Issuance Date	Action Authorized
1979	PSD initial construction and operation permit
30D-85-OT-1 December 2, 1985	Synthetic minor PSD total facility operating permit
13700083-002 March 9, 1995	Backwards-looking PSD permit
13700083-007 January 17, 1996	PSD expansion construction permit
13700083-001 June 24, 1998	New Title V (Delta) operating permit

1.5 Facility Emissions:

Because the netting performed for -002 modifies the -001 netting, some information is repeated from the -001 technical support document.

Table 1. Official Netting Analysis Summary for Permit -001

Pollutant (tpy)	PM	PM₁₀	SO₂	NO_x	VOCs	CO	Lead
PTE from new and modified emission units	115.1	86.6	6.1	257	119	224	----
Net change in PTE (future PTE - '95 to '97 past actuals)	24.5	4.2	4.8	192.6	(-24.2)	93.7	----
PSD Significance Thresholds	25	15	40	40	40	100	----
PSD Review Required	No	no	no	yes	No	no	----

Table 2. Total Facility Potential to Emit Summary for the Future Plant for Permit -002

GP/EU No.	Emission Unit/Group Description	PM tpy	PM ₁₀ Tpy	SO ₂ tpy	NO _x Tpy	CO tpy	VOC Tpy	Pb Tpy
GP 001	Rotary Wood Wafer Dryers	31.0	31.0	6	181	47.3	57.8	----
GP 002	Boilers	17.9	17.9	1.20	59.8	112	37.4	----
*	Wood Waste Handling Operations	31.8	31.8	----	----	----	----	----
GP 003	Conveyor Dryer/Thermal Oil Heater	45.7	37.6**	4.91	184	92.0	72.7	----
EU 009	Board Press - 8 Foot	14.9	14.9	----	12.7	19.7	8.76	----
FS	Fugitive Sources	14.0	3.8	----	----	----	----	----

* GP 004, GP 005, EU 010, EU 011, and EU 016

** based on EU 005 PM₁₀ emission limit of 2.62 lb/hr being increased to 4.90 lb/hr

	PM tpy	PM ₁₀ Tpy	SO ₂ tpy	NO _x Tpy	CO tpy	VOC Tpy	Pb Tpy
Total Facility Limited Potential Emissions*	155.3	137.0**	12.11	437.5	271.0	176.7	----

*These are the limited potential emissions from column 3 in GI-07 from DELTA. They differ from those in the permit application sent by the Company in that they have been verified and corrected as need be by MPCA staff. These are the potential emissions that would appear in a public notice.

** based on EU 005 PM₁₀ emission limit of 2.62 lb/hr being increased to 4.90 lb/hr

Table 3. Official Netting Analysis Summary for Permit -002*

Pollutant (tpy)	PM ₁₀
PTE from new and modified emission units	96.6***
Net change in PTE (future PTE - '95 to '97 past actuals)**	14.2***
PSD Significance Threshold	15
PSD Review Required	no

* all other criteria pollutants remain unchanged

** See following "SV 002 PM₁₀ Emission Limit Relaxation" section for discussion as to why are using future PTE minus (1995 through 1997 past actuals).

*** based on EU 005 PM₁₀ emission limit of 2.62 lb/hr being increased to 4.90 lb/hr

Table 4. Facility (TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD	PM, PM ₁₀ , NO _x , VOC, CO	-	SO ₂
NAAR (Not Applicable)	-	-	-
Part 70 Permit Program	PM, PM ₁₀ , NO _x , VOC, CO	-	SO ₂

* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

Regulatory Overview of Facility

2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

Regulatory Overview of Units Affected by the Modification

Table 8. Regulatory Overview

EU#	Applicable Regulations	Comments
EU 009	40 CFR 70.6(a)(3); Minn. R. 7007.0800, subps. 4, 5, and 6	Monitoring, record keeping and testing associated with a thermal oxidizer operating with catalyst.
EU 017, EU 020	Minn. R. 7007.0800, subp. 2	175 hours of operation per year; operate only as intermittent basis when normal plant is not in operation
EU 005	40 CFR § 52.21	PM10 4.90 lb/hr emission limit relied in computer dispersion modeling

3. Technical Information

Catalyst

Language was drafted to specify the frequency of catalyst sampling and analysis. Language was also drafted to allow the conversion of the unit to thermal mode from catalytic, and even back to catalytic without a permit amendment. This approach will save both MPCA and Potlatch resources.

Based on information provided by the manufacturer, the catalyst performance appears to be very stable over time as evidenced by its operating history at other facilities. The catalyst has been operating on an OSB press for over 3.5 years with a very low

accumulation of alkali salts. At other facilities, on other applications, the catalyst has operated up to 18 years. The catalyst life is stated to be typically 10 to 15 years with cleaning being necessary every 5 to 7 years.

The operating range for the catalyst is between 800 to 1350 degree Fahrenheit. A minimum temperature is necessary to ensure destruction of the volatile organic compound (VOC), while a maximum temperature is necessary to ensure that the catalyst is not damaged.

Based on these considerations the sampling language in the permit was developed. It allows a tiered sampling schedule that either relaxes or contracts based on the results of the catalyst sample tests.

Hood Certification

As part of this amendment, the issue was raised as to the capture efficiency of the TO above the press. The current permit provides for 90 percent destruction efficiency. It does not address the capture efficiency. At this time, EPA is developing a MACT for this industry. This issue was discussed with the EPA MACT developers. EPA's testing expert provided some information. First, he thought that MACT would be based on a total enclosure of such a press. EPA will be proposing a 90 percent combined control and capture. In order to achieve that would basically require a total enclosure. EPA was aware of several plants with total enclosures. He could not say what overall percentage. Secondly, EPA definitely was concerned about "dead air space" in these large buildings. Thirdly, to test right now, would require that a total temporary enclosure be placed around the unit. He roughly estimated that would be in the \$50,000 to \$60,000 range. Georgia-Pacific was currently trying to run a test with some type of sulphur. They would do a mass balance on what is released and captured. He thought this type of test would be a 1/2 of the cost. They were not certain if this type of test would work. If it did work, it could be a possible EPA approved alternative test method for the MACT.

Given all of this, EPA's MACT development can take the lead on this issue. A year from now, there might be better information on testing procedures and enclosures. For the next amendment, this issue should be revisited.

SV 002 PM₁₀ Emission Limit Relaxation

Based on several performance tests, Potlatch Corporation was unable to achieve the 2.62 lb/hr limit (-001). Potlatch requested to increase the PM₁₀ emission limit on the zones 2 and 3 conveyor (SV 002) exhaust from 2.62 to 4.90 lb/hr. The "net" potential increase in PM₁₀ emissions resulting from the expansion will remain below 15 tons per year.

Netting

Potlatch believes that the 1997 expansion and this permit application (-002) to increase an emission limit established as part of that expansion project should be treated as one single project. As a result it was necessary, therefore, to complete the netting analysis as if the expansion had not yet been built - revising it only to incorporate the proposed emission limit. EPA has provided guidance on the "accumulation of emissions" that support the position that these two projects are sufficiently related and should be considered a single project.

As background, the regulatory basis for the PM₁₀ emission limit of 2.62 pounds per hour for zones 2 and 3 of the conveyor dryer contained in Potlatch's current permit (-001) is listed as 40 CFR 52.21 limit - relied upon in dispersion modeling analysis. This limit was established as part of the expansion permit dated December 22, 1997, and resulted in a net emissions increase in PM₁₀ of 4.2 tons per year. The expansion modification resulted in a PSD significant net emissions increase only for NO_x. All other pollutants were less than the PSD significant levels.

Completing the netting analysis, it is also necessary to determine the applicability of 40 CFR 52.21 (r)(4) which reads as follows :

"... at such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such a restriction on hours of operation, then the requirements of paragraphs (j) through (s) of this section shall apply to the source or modification though construction had not yet commenced on the source or modification."

In order to determine the applicability of 40 CFR 52.21 (r)(4) it is necessary to determine if, by increasing the emission limit for PM₁₀ to the proposed 4.9 pounds per hour, the original modification would become a major modification for PM₁₀ and require revision of PSD requirements. It is therefore, necessary to repeat the netting analysis that was part of the original modification to determine if by increasing the PM₁₀ limit results in a significant net emissions increase. This meant basing the netting analysis on actual emissions on data from the 1996 and 1997 timeframe because that was the data used in the original permit application. This is opposed to treating the emission limit increase as a separate project and updating the analysis to current operating conditions as is traditionally done in netting analyses.

Hence, the proposed emission increase to 4.90 lb/hr, nets out of the requirements cited in 40 CFR 52.21(r)(4).

Generators

Potlatch has provided that the two emergency generators are sized such that when there is an electrical power outage, both generators (intermittent operating scenario) will start and only provide enough electrical power to safely shut down the rotary drying systems, thermal oil heater, and power emergency lighting for the plant. All other plant process equipment in the facility (normal scenario) will be inoperable until normal utility grid power is restored. When the generator emissions (intermittent operating) are included with all of the "normal operating" facility emission units, the PM_{10} increment dispersion modeling resulted with a maximum 24-hour highest-second-high is 25.30 $\mu\text{g}/\text{m}^3$. This is above the 25 $\mu\text{g}/\text{m}^3$ MPCA policy level. For this modification (-002), Potlatch used the ISC-Prime, instead of the previously utilized ISCST3 model. In modeling, the hourly rate was used as though the generators operated 24 hours per day. In fact, they will operate for training and testing purposes about 30 minutes or less per week.

Accordingly, Potlatch proposed 2 plant operating scenarios. One operating scenario would include all the plant process equipment in the facility in use (normal), except the emergency generators use. The second operating scenario would include just the 2 emergency generators (intermittent). By running the normal operating scenario (without the generators), the modeling resulted in a PM_{10} with a maximum 24-hour highest-second-high to be 23.97 $\mu\text{g}/\text{m}^3$. See Attachment 2 - Modeling Results Summary.

In response, to the "intermittent" operating scenario, the permit restricts the use of the two emergency generators. The emergency generators may be used in only the following 2 situations. The first is due strictly to a power grid outage. In the event of an electrical grid outage, the generators are only to be used to supply power to maintain the facilities lighting, and to safely shut down the rotary dryers, boilers and heat source for the thermal oil heater. The second is for testing/training purposes with the units. It is anticipated that the units need to be operated for about 30 minutes each week for testing. This limited testing can be conducted during normal plant operations.

If the emergency generators were not limited to true emergency usage (while the plant is in full operation), their emissions would have been included in the increment with the normal operations. Because that increment consumption would have resulted in a greater than 25 $\mu\text{g}/\text{m}^3$, Potlatch would have been required to remodel, update the BPIP file, etc. for any parameter change to the modeling. The generators are to be limited for emergency use only. This maintains the PM_{10} increment below 25 $\mu\text{g}/\text{m}^3$. Hence, these additional modeling requirements are not included.

The MPCA policy has a policy of the PM_{10} increment to not exceed 25 $\mu\text{g}/\text{m}^3$. Hence, this is a state only limit. It is not based on a potential exceedance of the 30 $\mu\text{g}/\text{m}^3$ PSD increment which would require a Federal limit.

In addition, based on their potential to emit at 175 hours per year the two generators qualify as insignificant emission units (less than 1 ton per year).

Low Pressure Baghouse/Green End Baghouse

In the November 27, 2000, contravening permit application, Potlatch Corporation requested to separate the combined emission limit that was found in GP005 to the LP Baghouse (SV 009) and Green End Baghouse (SV 014). This request was authorized in a December 22, 2000, MPCA letter (Attachment 1). This permit amendment makes that change in Delta. Previously, the emission limit was listed as a total for both stacks. Each stack had a separate limit within the Group. It was originally envisioned that both baghouses would emit out through a common stack. The actual design has a separate stack for each baghouse. In this amendment, the previous stack limits are carried into each of the separate baghouse unit's requirements. For this amendment (-002), the modeling was done for separate stacks. Each stack has already been tested. See Attachment 3 - Performance Test Results. Hence, the performance test requirements (due 180 days after startup) were removed from this amendment. The testing frequency plan requirement is carried forth into both separate limits. At this time, the testing frequency plan is to be based on the September 5, 2001, test results. Hence, GP 005 is now a gap in the Delta permit.

CE 019 Deletion

The purpose of this revision is to correct the fact that there was only one cyclone installed on the conveyor dryer zones 2 and 3 (EU 005) as opposed to the two cyclones specified in the construction permit application for this unit submitted in 1997. In the 1997 permit, this unit was to be controlled by CE 018 and CE 019. One cyclone is adequately sized to handle the exhaust from both zones 2 and 3. This change did not result in any changes to the stack parameters previously modeled. The PM/PM₁₀ emission limits did not change as a result of this request. A September 5, 2001, MPCA letter confirms that the PM emission limit was achieved during a performance test. The PM₁₀ emission limit is being increased (as previously discussed). Hence, CE 019 was deleted from this permit amendment.

SV 005 Stack Temperature

The air dispersion modeling decreases the press stack temperature (SV 005). This is to reflect the installation of the thermal oxidizer operating with a catalyst and allow for a lower stack exhaust temperature. The change also allows the thermal oxidizer to convert from a with catalyst to a without catalyst and back again. This change is made in this amendment.

Insignificant Activity Listing

A listing of insignificant activities is included in the Delta permit appendix. It is noted that the two emergency generators, with the 175 hour/year restrictions, make the generators insignificant activities. Due to the hours of operation as well as restricted use only during intermittent times requirements, however, these units are listed in the main portion of the permit. The restricted use limit was taken to avoid exceedance of the state increment consumption. The fire pump, which had previously been included in GP 005, is now listed in the insignificant activity appendix.

Delta

GP 005 and CE 019 have been removed from Delta.

4. Conclusion

Based on the information provided by Potlatch Corporation, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700083-002 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Trent Wickman, Bob Beresford, Stuart Arkley, Bruce Braaten.

Attachment: 1) December 22, 2000, Letter
2) Updated Modeling Results (including generator)
3) September 5, 2001, Performance Test Results