AIR EMISSION PERMIT NO. 07100002- 001
IS ISSUED TO

Boise Cascade Corp

Boise Cascade Corp - International Falls
400 Second Street
International Falls, Koochiching County, Minnesota 56649

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

Permit Type	Application Date
Total Facility Operating Permit;	April 14, 1995
PSD amendment	Revised December, 1996
	PSD Permit Application – March, 1999

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. chs. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal ; PSD/NSR and Part 70
Issue Date: **September 9, 1999**
Expiration: **September 9, 2004**
All Title I Conditions do not expire.

Michael J. Sandusky
Division Manager
Air Quality Division

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Certain requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to: Minn. R. ch. 7030 (Noise Pollution Control).

FACILITY DESCRIPTION:

Boise Cascade Corporation operates an integrated Kraft pulp and paper mill in International Falls. The mill manufactures a variety of coated and uncoated fine paper products. The facility consists of a woodyard, chip processing center, pulp mill, bleach plant, chemical recovery system, power plant, wastewater treatment facility, industrial landfill, paper mill, finishing and sheeting, warehouse, and shipping facilities. In 1989 and 1990, Boise underwent an expansion that included the installation of a new paper machine, a new bleach plant, a new lime kiln, modification of the chemical recovery furnace, and other upgrades.

This Part 70 permit is an air emission operating permit required by Title V of the federal Clean Air Act Amendments of 1990, codified in 40 CFR pt. 70. "Part 70" is a section in the Code of Federal Regulations for the Protection of the Environment. Previously, the facility operated under a total facility permit, which was also a PSD permit, issued by the MPCA on May 12, 1989. There have subsequently been nine amendments to the permit.

This permit will also incorporate more detailed requirements for monitoring and recordkeeping of the emission units, pollution control equipment, and all new rules and existing regulations that apply to Boise Cascade at the time of this permit. The permit will also meet all requirements of Minn. R. 7007.0800, that specifies requirements for the content of Part 70 permits.

This permit includes a PSD modification for the Boiler No. 2, which is an overfire air project. This project is a waste reduction measure which will allow Boise to burn more sludge and bark in the boiler rather than landfilling the sludge and bark, and which will reduce the carbon content of the ash from 45 percent to 10 percent. The overfire air project is essentially a Nitrogen Oxide (NO_x) control method, which will reduce the amount of NO_x generated for a given amount of sludge or wood burned, which will allow Boise to burn more sludge and wood on an hourly basis, while still remaining within their NO_x emission limit.

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

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

Subject Item: **Total Facility**

What to do	Why to do it
FACILITY LIMITS	hdr
Starch Received Production: less than or equal to 16439 tons/month using 12-month Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Unbleached Pulp (air dried); does not include purchased pulp. Production: less than or equal to 29684 tons/month using 12-month Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Bleached Pulp (air dried); does not include purchased pulp. Production: less than or equal to 27903 tons/month using 12-month Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Black Liquor Solids Production: less than or equal to 35000 tons/month using 12-month Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Fresh Lime Makeup System Production: less than or equal to 1485 tons/month using 12-month Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: Monthly record and monthly calculation of 12-month rolling average of the items listed below, by the 15th of the following month: starch received, unbleached pulp (air dried) production, bleached pulp (air dried) production, black liquor solids production, and fresh lime makeup.	Title I Condition: Recordkeeping for Title I Condition; Minn. R. 7007.0800, subp. 5
Reporting: Annually by January 30th, a report of the previous 12 monthly 12-month rolling average calculations of the following: starch received, unbleached pulp (air dried) production, bleached pulp (air dried) production, black liquor solids production, and fresh lime makeup.	Minn. R. 7007.0800, subp. 6
FACILITY REQUIREMENTS	hdr
Ambient TRS Plan: The Ambient TRS Plan shall describe the steps to be taken to ensure that the ambient air TRS target is not exceeded. The Plan is due 60 days after permit issuance. The ambient air TRS target is described in the Technical Support Document for this permit. The Plan shall include a description of the location of the TRS monitor and the quality assurance requirements for the monitor and its data. Also to be included are steps that the Permittee will follow if the ambient air TRS target, if the exceedance is attributable to Boise Cascade. This will include the investigative steps and the timelines for reporting the corrective actions that the Permittee will take to meet the ambient air TRS target. Upon approval by the Commissioner, the Plan shall be an enforceable part of the permit. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Minn. R. 7007.0800, subp. 2
Ambient Monitoring: The Ambient TRS Plan shall follow the guidance in MPCA Exhibit M, Air Monitoring Procedures for Determination of Compliance, attached as Appendix B to this permit.	Minn. R. 7007.0800, subp. 2
Cease Operation: The Permittee may cease operation of the ambient TRS monitor as described in the Ambient TRS Plan. The Permittee shall continue to abide by the Ambient TRS Plan, except for those provisions related to operation and maintenance of the TRS monitor, after the monitor has been shut off. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Minn. R. 7007.0800, subp. 2
Operation and Maintenance Plan: The O&M Plan shall include information for the following control equipment: CE220, CE240, CE320, CE322, CE323, CE340, CE341, CE430, CE431 and the flare at Moonlight Rock Landfill (EU 901). The Plan is due 90 days after permit issuance; a description of what the Plan should include is given below. The Commissioner may require reasonable additions or changes to the O&M Plan prior to granting approval. The Plan may be amended with the Commissioner's written approval. Upon approval, the Plan shall be an enforceable part of the permit and the Permittee shall comply with all parts of the Plan.	Minn. R. 7007.0800, subp. 2
Operation and Maintenance Plan: The O&M Plan shall include, for each pollution control equipment: the parameters to be monitored and the parameter ranges to be used, as identified in the permit; 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, breakdown or exceedance of operating ranges; a description of inspection procedures to be followed; and records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

NCG Venting: The Permittee shall control NCGs through thermal oxidation in either the Lime Kiln (primary device), Power Boiler #2 (secondary device) or Power Boiler #1 (tertiary device). When none of these control devices is available, the Permittee may vent NCGs directly to atmosphere. Upon venting NCGs in an uncontrolled manner, the Permittee shall initiate investigation of the cause and take necessary action to re-establish control. If control cannot be re-established within 30 minutes, the Permittee shall initiate shutdown of the NCG-emitting sources in a controlled manner. The NCG-emitting sources, except for the evaporators, shall be shut down within 10 minutes and the remaining sources (the evaporators) shall be shutdown within one hour. The Permittee shall not re-start any of the NCG emitting sources until one of the control systems is operational.	Minn. R. 7007.0800, subp. 2
Fugitive Emissions Control Plan: The Permittee shall submit a fugitive emissions control plan within 90 days of the date of permit issuance for review and approval by the Commissioner. The plan shall identify all fugitive emission sources, including paved and unpaved roads, primary and contingent control measures, and record keeping. The Permitee shall follow the actions and record keeping specified in the control plan. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the permitee is out of compliance with Minn. R. 7011.0150 or the fugitive emission control plan, then the permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and record keeping specified in the control plan. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
List of Insignificant Activites Required to be Listed: Appendix C includes activites and sources at the facility that have been determined to be insignificant activities under Minn. R. 7007.1300. This list does not include every insignificant activity and is subject to change. The Permittee shall maintain proper maintenance of the sources listed in Appendix C, as well as all silos, baghouses, and cyclones, so as to prevent excessive amounts of particulate matter from being emitted from the associated stacks/vents.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.1300
MACT REQUIREMENTS - SUBPART S	hdr
MACT Requirements: This facility is subject to all pertinent requirements of the MACT, 40 CFR pt. 63, subp. S (National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry). This permit contains many of the applicable requirements from 40 CFR part 63, Subparts A and S. Some of the requirements may be paraphrased in this permit. If there is a conflict betweena permit term and the regulation, the regulation shall take precedence.	40 CFR pt. 63, subp. S
The Brownstock Washer and Condensate MACT Schedule shall be due by December 31, 1999. This Schedule shall describe the Permittee's proposed schedule for controlling, collecting and/or treating emissions from the pulping system emission units (other than the LVHC system, which is already addressed in this permit as GP 340) and the kraft pulping process condensate emission units. The schedule shall include the schedule for implementing the monitoring, recordkeeping and reporting requirements which are to be followed as well as a schedule for obtaining a permit amendment to incorporate the proposed changes.	Minn. R. 7007.0800, subp. 2
Initial Compliance Status Report: This report has been submitted prior to April 15, 1999, which was the due date. This report will serve as the initial notification report specified under 40 CFR Section 63.9(b)(2). A non-binding control strategy report was submitted with the initial notification report.	40 CFR Section 63.455(a)
Compliance Dates for Enclosures and Closed-Vent Systems: Compliance for the requirements in 40 CFR 63.450 and described below (i.e. the standards for enclosures and closed-vent systems) shall be achieved by the date for the applicable system. The compliance date for the NCG system, pulping condensates and bleach plant is April 16, 2001; the compliance date for the brownstock washer system is April 17, 2006.	40 CFR Section 63.440
Standards for Enclosures and Closed-vent Systems: Each enclosure shall maintain negative pressure at each enclosure or hood opening as demonstrated by procedures specified in 40 CFR Section 63.457(e). Each enclosure or hood opening closed during the initial performance test specified in 40 CFR Section 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs. Each component of the closed-vent system used to comply with 40 CFR Section 63.443(c) and 63.445(b) that is operated at positive pressure and located prior to a control device shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 ppm by volume above background, as measured by the procedures in 40 CFR Section 63.457(d).	40 CFR Section 63.450(b)

Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in 40 CFR Section 63.443 or 63.445 shall comply with either of the following requirements: 1) On each bypass line, the owner or operator shall install, calibrate, maintain and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line; or 2) For bypass line valves that are not computer controlled, the owner or operator shall maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.	40 CFR Section 63.450(b) CONTINUED
Monitoring Requirements for Enclosure and Closed-vent Systems: 1) For each enclosure opening, a visual inspection of the closure mechanism specified in 40 CFR Section 63.450(b) shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed. 2) Each closed-vent system required by 40 CFR Section 63.450(a) shall be visually inspected every 30 days and at other times as requested by the Administrator. The visual inspection shall include inspection of ductwork, piping, enclosures and connections to covers for visible evidence of defects. 3) For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in 40 CFR Section 63.450(c) measured initially and annually by the procedures in 40 CFR Section 63.457(d). 4) Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in 40 CFR Section 63.457(e).	40 CFR Section 63.453(k)
5) The valve or closure mechanism specified in 40 CFR Section 63.450(d)(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line. 6) If an inspection required by paragraphs 1 through 5 of this section identified visible defects in ductwork, piping or enclosure or connections to covers required by 40 CFR Section 63.450, or if an instrument reading of 500 ppm by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable: (i) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified. (ii) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified.	40 CFR Section 63.453(k) CONTINUED
Site-Specific Inspection Plan: The Permittee shall prepare and maintain a site-specific inspection plan for each applicable enclosure opening, closed-vent system, and closed collection system. The Plan shall include a drawing or schematic of the components of applicable affected equipment. The Permittee shall record the information described in 40 CFR Section 63.454(b) for each inspection.	40 CFR Section 63.454(b)
MACT REQUIREMENTS - GENERAL PROVISIONS	hdr
At all times the Permittee shall operate and maintain the emission unit subject to the MACT standard and its associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.	40 CFR Section 63.6(e)(1)(i)
Malfunctions: Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.	40 CFR Section 63.6(e)(1)(ii)
The Permittee shall prepare and implement a Startup, Shutdown, and Malfunction Plan (SSMP) for each of the emission units subject to Maximum Control Technology Standards by April 16, 2001. The SSMP is a federally enforceable part of the permit and shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and shall include requirements specified in 40 CFR Section 63(e)(3). The SSMP must be located at the plant site and must be kept updated. When the SSMP is updated, the Permittee must keep all previous versions of the SSMP for a period of 5 years. The Permittee must submit the SSMP when required.	40 CFR Section 63.6(e)(3)(i); 40 CFR Section 63.6(e)(3)(v)
During periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain the source (including associated air pollution control equipment) in accordance with the procedures specified in the Startup, Shutdown, and Malfunction Plan.	40 CFR Section 63.6(e)(3)(ii); 40 CFR Section 63.6(e)(3)(iii)
The Permittee shall maintain files of all information required by this part recorded in a form suitable and readily available for expeditious inspection and review. The information maintained in the files shall, at a minimum, contain the information described in 40 CFR Section 63.10(b)(2). The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Of data required to be retained for five years, only the most recent two years of information must be kept on site.	40 CFR Section 63.10(b)(1)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

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Startup, shutdown, and malfunction reports shall be submitted only if there is an occurrence of startup, shutdown, and malfunction during the reporting period and shall be delivered or postmarked by the 30th day following the end of each calendar half year after April 16, 2001.	40 CFR Section 63.10(d)(5)(i)
If the Permittee deviates from the startup, shutdown, and malfunction plan (SSMP) during a startup, shutdown, or malfunction, the Permittee shall record the actions taken for that event and report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event. The report must contain name, title, and signature of a responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSMP, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. This requirement applies after April 16, 2001.	40 CFR Section 63.6(e)(3)(iv); 40 CFR Section 63.10(d)(5)(ii)
Prior to construction or reconstruction of an "affected source" under the promulgated MACT standards, the Permittee must apply for and obtain an air emission permit.	40 CFR Section 63.5(b)(3)
GENERAL TOTAL FACILITY REQUIREMENTS	hdr
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
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, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
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
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit. Operating rate limits will be based on a 12 hour block average basis provided that all emission results were less than or equal to 80% of the applicable limits. Otherwise, an averaging period of 6 hours applies.	Minn. R. 7017.2025
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
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)
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.	Minn. R. 7007.0800, subp. 5(B)
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 strip-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).	Minn. R. 7007.0800, subp. 5(C)
Extension Requests: The permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not federally enforceable.	Minn. R. 7030.0010 - 7030.0080
COMS and CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, zero and span adjustments, and periods when the monitored source is not in operation, all COMS and CEMS shall be in continuous operation.	Minn. R. 7007.0800, subp. 4; Minn. R. 7007.0800, subp. 2
The Permittee shall comply with the General Condtions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Risk Management Plan: The Permittee was required to submit a Risk Management Plan (RMP) under the federal rule, 40 CFR Part 68 which was promulgated on June 20, 1996. The Permittee submitted its RMP on May 28, 1999. The rule requires 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. 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 Section 68

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

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Subject Item: **GP 340 NCG Incineration and Venting**

Associated Items: CE 342 Other

EU 110 Turpentine Decanter #1

EU 115 Turpentine Decanter #2

EU 120 Turpentine Condenser dig. 1-4

EU 125 Turpentine Condenser dig. 5-7

EU 130 Pre-evaporator Hotwell

EU 135 Stripper Feed Tank

EU 140 Blow Heat Secondary Condenser

EU 303 55% Black Liquor Solids Tank

EU 305 62% Black Liquor Solids Tank

EU 307 72% Black Liquor Solids Tank

EU 309 Evaporator Hotwell

What to do	Why to do it
MACT REQUIREMENTS	hdr
Compliance Date for MACT Requirements: Compliance with the requirements from the MACT standard for the LVHC system shall be achieved by April 16, 2001.	40 CFR 63.440(d)
HAP Control: Gases from the LVHC system shall be combusted in the lime kiln, or boiler #2 or #1 as backup.	40 CFR Section 63.443(a)(1)(i); 40 CFR Section 63.443(d)(4)
Enclosures and Venting: All equipment listed in this group shall be enclosed and vented into a closed-vent system meeting the requirements specified in 40 CFR Section 63.450 and as described in the total facility section.	40 CFR Section 63.443(c)
OTHER REQUIREMENTS	hdr
TRS Control: Gases from the NCG sources (batch digester system (blow heat recovery), relief condensers and decant system, foul condensate stripper feed tank, heavy solids black liquor tanks, and the multiple-effect evaporator) shall be combusted in the lime kiln which shall be equipped with a scrubber. The TRS limit from the lime kiln shall be 8 ppmvd corrected to 10% oxygen.	40 CFR Section 60.283(a)(1)(i); Minn. R. 7011.2450
TRS Control - Backup and Emergency: During shutdowns and malfunctions of the lime kiln, non-condensable gases from the NCG sources (batch digester system, relief condensers and decant system, foul condensate stripper feed tank, heavy solids black liquor tanks, and the multiple-effect evaporator system) shall be routed to Boiler #2 (EU430) for oxidation. During emergency situations when neither the lime kiln or Boiler #2 are available, the NCG shall be oxidized in Boiler #1 (EU420). NCG oxidation in Boilers #1 and #2, in aggregate, shall be limited to no more than 612 hours per year on a 12-month rolling sum basis.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
NCG Venting: NCG venting (venting directly to the atmosphere, rather than being oxidized in the lime kiln or Boilers #1 or #2) shall be limited to not more than 30 hours per year on a 12-month rolling sum basis. NCG venting shall also follow procedure described under the Total Facility subject item.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: Monthly record of hours during which NCG's are oxidized in Boiler #1 or #2 and of venting hours and monthly calculation of 12-month rolling sums, by the 15th of the following month.	Title I Condition: Recordkeeping associated with Title I Condition; Minn. R. 7007.0800, subp. 5
Reporting: Annually by January 30th, a report of the previous 12 monthly 12-month rolling sum calculations of NCG oxidized in Boiler #1 and #2 and of NCG venting.	Minn. R. 7007.0800, subp. 6

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **GP 420 Boilers & Recovery furnace - NOx cap**

Associated Items: EU 320 Recovery Furnace

EU 322 Smelt Dissolving Tank

EU 340 Lime Kiln

EU 420 Boiler #1

EU 430 Boiler #2

EU 440 Boiler #3

EU 450 Boiler #8

EU 460 Boiler #9

What to do	Why to do it
Nitrogen Oxides: less than or equal to 3.67 tons/day from combustion sources (Boilers #1, #2, #3, #8, #9 and Recovery Furnace).	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Calculate: Calculate NOx emissions daily from combustion sources. The NOx emissions from EU320, EU420, EU430, EU440, EU450, and EU460 (recovery furnace, boilers #1, #2, #3, #8, and #9) shall be summed together and compared to the NOx limit for the combustion sources (3.67 tons/day). The NOx emissions from each emission unit are to be determined from the CEMS for that emission unit. Any exceedances shall be reported with the CEMS EERs.	Title I Condition: Calculations associated with Title I Condition; Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 4.18 tons/day , calculated on a semi-annual basis. This limit is the total NOx cap for the facility, and includes the combustion sources (boilers #1, #2, #3, #8, #9, and the recovery furnace) as well as the lime kiln and smelt dissolving tank.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Calculate: NOx emissions from the smelt dissolving tank (EU 322) and the lime kiln (EU 340) shall be calculated by multiplying the emission factor determined from performance tests and the applicable production rate. The NOx emissions shall be added to the emissions determined from the CEMS and shall then be compared to the total NOx emission limit for GP 420. The total NOx emissions shall be calculated on a semi-annual basis. Any exceedances shall be reported with the CEMS EERs.	Title I Condition: Calculations associated with Title I Condition; Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **GP 421 Kraft Pulping Process Condensates**

Associated Items: EU 145 Foul Condensate Stripper

EU 179 14% Black Liquor Tank

EU 301 18% Liquor Tank

What to do	Why to do it
Compliance Date for MACT Requirements: Compliance with the requirements from the MACT standard for the pulping process condensates shall be achieved by April 16, 2001.	40 CFR 63.440(d)
Condensate Treatment: The Permittee is to submit a schedule as described under the subject item Total Facility. The schedule shall include the schedule for determining the treatment option for condensates as described in 40 CFR Section 63.446.	40 CFR Section 63.446
Condensate Closed Collection System: The condensates to be treated shall be conveyed in a closed collection system that is designed and operated to meet the requirements in paragraphs (d)(1) and (d)(2) of 40 CFR Section 63.446.	40 CFR Section 63.446(d)
Condensate Monitoring Requirements: The Permittee shall install, calibrate, certify, operate, and maintain according to manufacturer's specifications, a continuous monitoring system (CMS) according to 40 CFR Section 63.453 and as described in the Brownstock Washer and Condensate MACT Report.	40 CFR Section 63.453

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **GP 422 Paper Machines**

Associated Items: EU 505 No. 2 Paper Machine

EU 520 No. 3 Paper Machine

EU 540 No. 1 Paper Machine

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Periodic Monitoring: the Permittee shall perform proper maintenance of the paper machines so as to prevent excessive amounts of particulate matter from being emitted from the associated stack/vents.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **SV 173 Brown Stock Washer**

Associated Items: EU 173 Brown Stock Washing

EU 174 Brown Stock Decker

What to do	Why to do it
EMISSION LIMITS	hdr
Volatile Organic Compounds: less than or equal to 0.20 lbs/ton air dried tons unbleached pulp, measured as carbon excluding methane.	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Sulfur - Total Reduced: less than or equal to 0.12 lbs/ton air dried tons unbleached pulp, measured as H2S.	Title I Condition: 40 CFR Section 52.21(j); (BACT limit); Minn. R. 7007.3000
OPERATIONAL LIMITS	hdr
TRS Control: The brown stock washing system is exempt from the TRS requirements in 40 CFR pt.60, subp. BB since it was demonstrated that incinerating the exhaust gases from the brown stock washing system is economically infeasible. This was done in the permitting for the 1989 New Source Review permit.	40 CFR Section 60.283(a)(1)(iv); Minn. R. 7011.2450
Compliance Date for MACT Requirements: Compliance with the requirements from the MACT standard for the brown stock washer system shall be achieved by April 17, 2006.	40 CFR 63.440(d)
Pulping System Emissions Control: The emissions from the pulping system, as described in 40 CFR Section 63.443(a)(1)(ii) through (iv) shall be treated as described in the Brownstock Washer and Condensate MACT Report.	40 CFR Section 63.446
Monitoring Requirements: The Permittee shall install, calibrate, certify, operate, and maintain according to manufacturer's specifications, a continuous monitoring system (CMS) according to 40 CFR Section 63.453 and as described in the Brownstock Washer and Condensate MACT Report.	40 CFR Section 63.453
Enclosures and Venting: All equipment listed in this group shall be enclosed and vented into a closed-vent system meeting the requirements specified in 40 CFR Section 63.450 and as described in the total facility section.	40 CFR Section 63.443(c)
TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 36 months following Permit Issuance to measure Volatile Organic Compound and Total Reduced Sulfur emissions. The tests shall be conducted at an interval not to exceed 36 months between test dates.	Title I Condition: Testing associated with Title I emission limit; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 36 months following Permit Issuance to measure Volatile Organic Compound and Total Reduced Sulfur emissions (7 days before each Performance Test).	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **SV 220 ClO2 Generator**

Associated Items: EU 220 ClO2 Generator

EU 221 Dump Tank

EU 222 ClO2 Storage Tank A

EU 223 ClO2 Storage Tank B

EU 224 Sewer Vent (L8)

EU 225 CLO2 Tower Seal Tank

EU 226 Saltcake Mix Tank

EU 227 Barametric Condenser

EU 228 Saltcake Filter

EU 229 Saltcake Hydroclone

EU 230 Anti-Siphon Vent

What to do	Why to do it
EMISSION LIMITS	hdr
Chlorine: less than or equal to 0.17 lbs/hour . This is a state only limit and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2 (Limit established due to risk assessment performed as part of PSD permitting for 1989 permit)
Chlorine Dioxide: less than or equal to 2.2 lbs/hour . This is a state only limit and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2 (Limit established due to risk assessment performed as part of PSD permitting for 1989 permit)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Control Equipment Monitoring: Observe and record, once per operating shift, the pressure drop of the gas stream for CE220.	Minn. R. 7007.0800, subp. 14
Control Equipment Monitoring: Observe and record, once per operating shift, the scrubbing liquid supply pressure for CE220.	Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 3.2 inches of water column or as determined during the most recent performance test (this is pressure drop of the gas stream).	Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 0.5 inches of water column or as determined during the most recent performance test (this is scrubbing liquid supply pressure).	Minn. R. 7007.0800, subp. 14
Corrective Actions: If the monitored parameter is out of the range as described above, the Permittee shall follow the facility O&M Plan and perform the necessary corrective action(s) as soon as possible to get the parameters back into the correct range. The Permittee shall keep a record of the type and date of all corrective actions taken.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure Chlorine and Chlorine Dioxide emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Chlorine and Chlorine Dioxide emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **SV 240 Bleach plant**

Associated Items: EU 240 D/C Tower

EU 241 D Tower

EU 242 D/C Blend Chest

EU 243 D-Mixer Sample Pot.

EU 244 D/C Filt. Tank

EU 245 D Filt. Tank

EU 246 Eo Filt. Tank

EU 247 Acid Sewer Vent

EU 248 Chlorine Blowdown Tank

What to do	Why to do it
EMISSION LIMITS	hdr
Compliance Date for MACT Requirements: Compliance with the requirements from the MACT standard for the LVHC system shall be achieved by April 16, 2001.	40 CFR Section 63.440(d)
HAPs - Total: less than or equal to 10 parts per million or less than or equal to 0.02 lb per ton of oven-dried pulp or reduce the Total Chlorinated HAP mass entering the control device by 99% or more by weight. In this limit, Total HAPs refers to Total Chlorinated HAPs (not including chloroform).	40 CFR Section 63.445(c)
Chlorine: less than or equal to 0.41 lbs/hour . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2 (Limit established due to risk assessment performed as part of PSD permitting for 1989 permit)
Chlorine Dioxide: less than or equal to 1.2 lbs/hour . This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2 (Limit established due to risk assessment performed as part of PSD permitting for 1989 permit)
Chloroform: less than or equal to 1.33 tons/month using 12-month Rolling Average . This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Minn. R. 7007.0800, subp. 2 (Limit established due to risk assessment performed as part of PSD permitting for 1989 permit)
OPERATIONAL LIMITS	hdr
The Permittee shall comply with paragraph (d)(1) or (d)(2) of 40 CFR Section 63.445 (summarized below) to reduce chloroform air emissions to the atmosphere. (1) Comply with the applicable effluent limitation guidelines and standards specified in 40 CFR part 430; (2) Use no hypochlorite or chlorine for bleaching in the bleaching system or line.	40 CFR Section 63.445(d)
Enclosures and Venting: All equipment listed at this stack shall be enclosed and vented into a closed-vent system meeting the requirements specified in 40 CFR Section 63.450 and as described in the total facility section.	40 CFR Section 63.443(c)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
CMS for Scrubber: The Permittee shall install, calibrate, certify, operate, and maintain a continuous monitory system (CMS) to measure the following parameters for the gas scrubber: (1) The pH or the oxidation/reduction potential of the gas scrubber effluent; (2) The gas scrubber vent gas inlet flow rate; and (3) The gas scrubber liquid influent flow rate. An option to the CMS requirement above, is to install, calibrate, certify, operate, and maintain a CMS to measure the chlorine outlet concentration of each gas scrubber used to comply with the bleaching system outlet concentration requirment specified in 40 CFR Section 63.445(c)(2).	40 CFR Section 63.453(a), (c), (d)
Scrubber Parameter Values: To establish or reestablish the value for each operating parameter required to be monitored under 40 CFR Section 63.453, the Permittee shall use the procedures described in 40 CFR Section 63.453(n).	40 CFR Section 63.453(n)
Control Equipment Operation: The Permittee shall operate the gas scrubber in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored under paragraphs (a) through (n) of 40 CFR Section 63.453 and as described in 40 CFR Section 63.453(o). Operation of the control device below minimum operating parameter values or above maximum operating parameter values established under 40 CFR pt. 63, subp. S shall constitute a violation of the applicable emission standard of 40 CFR pt. 63, subp. S and shall be reported as a period of excess emissions.	40 CFR Section 63.453(o)
Control Equipment Monitoring: Observe and record, once per operating shift, the pressure drop of the gas stream for CE240.	Minn. R. 7007.0800, subp. 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Control Equipment Monitoring: Observe and record, once per operating shift, the scrubbing liquid supply pressure for CE240.	Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 3.6 inches of water column or as determined during the most recent performance test (this is pressure drop of the gas stream).	Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 0.5 inches of water column or as determined during the most recent performance test (this is scrubbing liquid supply pressure).	Minn. R. 7007.0800, subp. 14
Corrective Actions: If the monitored parameter is out of the range as described above, the Permittee shall follow the facility O&M Plan and perform the necessary corrective action(s) as soon as possible to get the parameters back into the correct range. The Permittee shall keep a record of the type and date of all corrective actions taken.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure Chlorine, Chlorine Dioxide and Chloroform emissions. The performance test for chloroform will be used to generate an emission factor which will be used to calculate chloroform emissions on a monthly basis. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Chlorine, Chlorine Dioxide and Chloroform emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. R. 7017.2030, subp. 4
Initial Performance Test: due 180 days after 04/16/2001 for Total Chlorinated HAPs (not including chloroform).	40 CFR Section 63.457(a); Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test for Total Chlorinated HAPs (not including chloroform).	Minn. R. 7017.2030, subp. 4
RECORDKEEPING	hdr
Recordkeeping: Keep records of the amount and type (hardwood, softwood) of each bleach batch. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Minn. R. 7007.0800, subp. 5
Chloroform calculations: Monthly calculation of 12-month rolling average chloroform emissions, by the 15th of the following month. The calculation of chloroform emissions shall be made by applying the hardwood chloroform emission rate to the total amount of hardwood bleached and applying the softwood chloroform emission rate to the total amount of softwood bleached throughout the month. Each month, a new monthly and 12-month rolling average emission rate shall be determined. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **SV 322 Smelt Dissolving Tank**

Associated Items: EU 322 Smelt Dissolving Tank

EU 323 Precipitator Salt Cake Mix Tank

EU 324 Hopper Flush Tank

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 5.7 lbs/hour . (This limit is based on an emission rate limit of 0.12 lb/ton BLS (dry) and thus is more stringent than the NSPS limit (40 CFR Section 60.282(a)(2)) of 0.2 lb/ton BLS for a smelt dissolving tank).	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 5.5 lbs/hour	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7007.0800, subp. 2
Nitrogen Oxides: less than or equal to 0.033 lbs/ton of black liquor solids produced.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 4.3 lbs/hour (this is equivalent to 0.090 lb/ton BLS).	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 0.090 lbs/ton BLS (black liquor solids), measured as C excluding methane. (this is equivalent to 4.3 lb/hr)	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Sulfur - Total Reduced: less than or equal to 0.033 lbs/ton (lb/ton of BLS (black liquor solids)), measured as H2S. The BACT limit is the same as the NSPS limit.	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); 40 CFR Section 60.283(a)(4); Minn. R. 7007.3000; Minn. R. 7011.2450
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Control Equipment Monitoring: Observe and record once per operating day, the pressure drop for CE322 and CE323.	Title I Condition: Monitoring associated with Title I emission limit; Minn. R. 7007.0800, subp. 14
Control Equipment Monitoring: Observe and record once per operating day, the liquid flow rate for CE322 and CE323.	Title I Condition: Monitoring associated with Title I emission limit; Minn. R. 7007.0800, subp. 14
Install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the pressure loss of the gas stream through the control equipment. The monitoring device is to be certified by the manufacturer to be accurate to within a gage pressure of +/- 2 inches water gage pressure. The monitoring device shall be operational upon startup of the control equipment.	40 CFR Section 60.284(b)(2)(i); Minn. R. 7011.2450
Install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within +/- 15 percent of design scrubbing liquid supply pressure. The pressure sensor or tap is to be located close to the scrubber liquid discharge point. The monitoring device shall be operational upon startup of the control equipment.	40 CFR Section 60.284(b)(2)(ii); Minn. R. 7011.2450
Record once per shift, measurements obtained from the monitoring device for the continuous measurement of the pressure loss of the gas stream throught the control equipment and from the monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the control equipment.	40 CFR Section 60.284(c)(4); Minn. R. 7011.2450
Pressure Drop: greater than or equal to 6.5 inches of water column or as determined during the most recent performance test.	Minn. R. 7007.0800, subp. 14
Liquid Flow Rate: greater than or equal to 100 gallons/minute or as determined during the most recent performance test.	Minn. R. 7007.0800, subp. 14
Corrective Actions: If the monitored parameter is out of the range as described above, the Permittee shall follow the facility O&M Plan and perform the necessary corrective action(s) as soon as possible to get the parameters back into the correct range. The Permittee shall keep a record of the type and date of all corrective actions taken.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure Total Particulate Matter, Particulate Matter <10 micron, Opacity, Nitrogen Oxides, Sulfur Dioxide, and Total Reduced Sulfur emissions. The Nitrogen Oxides test data will also be used to determine an emission factor which shall be used in calculating the total NOx emissions for comparison to the total NOx cap (GP 420).	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Opacity, Nitrogen Oxides, Sulfur Dioxide, and Total Reduced Sulfur emissions.	Minn. R. 7017.2030, subp. 4
Initial Performance Test: due 1,095 days after Permit Issuance (3 years after Permit Issuance) to measure Volatile Organic Compound emissions.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Volatile Organic Compound emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each year following Initial Performance Test to measure Total Particulate Matter and Particulate Matter <10 micron emissions. The tests shall be conducted at an interval not to exceed 12 months between test dates. This testing frequency may be amended following submittal of a testing frequency plan once three consecutive tests have demonstrated compliance with the applicable emission limits.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (7 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 60 months following Initial Performance Test to measure Sulfur Dioxide emissions. The tests shall be conducted at an interval not to exceed 60 months (5 years) between test dates.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test to measure Sulfur Dioxide emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each year following Initial Performance Test to measure Total Reduced Sulfur emissions. The tests shall be conducted at an interval not to exceed 12 months between test dates.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each year following Initial Performance Test (7 days before each Performance Test) to measure Total Reduced Sulfur emissions.	Minn. R. 7017.2030, subp. 4
RECORD KEEPING	hdr
NOx Emissions Calculation: The NOx emissions shall be calculated on a semi-annual basis. The NOx emission factor, obtained from performance test, shall be multiplied by the production rate of the black liquid solids production. The NOx emissions shall be calculated and converted to a tons/day basis for determining the total NOx emissions from the facility and comparison to the NOx cap (GP 420).	Minn. R. 7007.0800, subp. 6

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **SV 327 Lime Slaker, etc.**

Associated Items: EU 327 Lime Slaker

EU 328 Causticizer #1

EU 329 Causticizer #2

EU 330 Causticizer #3

EU 350 Reburned Lime Bin

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.91 lbs/hour	Title I Condition: 40 CFR Section 52.21 (netting and modeling); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.91 lbs/hour	Title I Condition: 40 CFR Section 52.21 (netting and modeling); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1(B)
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Control Equipment Monitoring: Observe and record once per operating day, the pressure drop for CE327.	Title I Condition: Monitoring associated with Title I emission limit; Minn. R. 7007.0800, subp. 14
Control Equipment Monitoring: Observe and record once per operating day, the supply pressure for CE327.	Title I Condition: Monitoring associated with Title I emission limit; Minn. R. 7007.0800, subp. 14
Pressure Drop: greater than or equal to 0 inches of water column or as determined during the most recent performance test. The pressure drop from the most recent performance test was -0.08 inches of water column.	Minn. R. 7007.0800, subp. 14
Water pressure: greater than or equal to 100 psi (gauge) or as determined during the most recent performance test. The pressure measured is the supply pressure.	Minn. R. 7007.0800, subp. 14
Corrective Actions: If the monitored parameter is out of the range as described above, the Permittee shall follow the facility O&M Plan and perform the necessary corrective action(s) as soon as possible to get the parameters back into the correct range. The Permittee shall keep a record of the type and date of all corrective actions taken.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 145 Foul Condensate Stripper**

Associated Items: CE 340 Centrifugal Collector - Medium Efficiency

CE 341 Wet Scrubber-High Efficiency w/o Lime

CE 342 Other

GP 421 Kraft Pulping Process Condensates

SV 145

SV 146

SV 340

SV 346

SV 347

What to do	Why to do it
TRS Control: Gases from the foul condensate stripper system shall be combusted in the lime kiln, which shall be equipped with a scrubber.	40 CFR Section 60.283(a)(1); Minn. R. 7011.2450
TRS Control: During periods when the TRS gases from the foul condensate stripper cannot be incinerated in the lime kiln, then the foul condensate stripper shall be shutdown and not operated.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 320 Recovery Furnace**

Associated Items: CE 320 Electrostatic Precipitator - High Efficiency

GP 420 Boilers & Recovery furnace - NOx cap

MR 320 Recovery Furnace

MR 321 Recovery Furnace

MR 322 Recovery Furnace

MR 323 Recovery Furnace

MR 324 Recovery Furnace

MR 325 Recovery Furnace

SV 320

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 28.3 lbs/hour	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 21.2 lbs/hour	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7007.0800, subp. 2
Sulfur Dioxide: less than or equal to 163.1 lbs/hour using 30-day Rolling Average	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 86.9 lbs/hour using 30-day Rolling Average . This is equivalent to 80 ppm on a dry basis, corrected to 8% oxygen.	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 396.4 lbs/hour using 24-hour Rolling Average . This is equivalent to 600 ppm on a dry basis, corrected to 8% oxygen.	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 28.8 lbs/hour measured as C, excluding methane. (this is based on emission rate of 0.6 lb/salt cake free, bone dry tons of black liquor solids).	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Sulfur - Total Reduced: less than or equal to 5 parts per million on a dry basis, corrected to 8% oxygen, using a 12-hour average. The BACT limit is the same as the NSPS limit.	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); 40 CFR Section 60.283(a)(2); Minn. R. 7007.3000; Minn. R. 7011.2450
OPERATIONAL LIMITS	hdr
Fuel burned: limited to natural gas. Black liquor solids (BLS) are also oxidized in the recovery furnace.	Title I Condition: 40 CFR Section 52.21
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
ESP Monitoring: The COMS for this emission unit shall be used to assess proper operation of this ESP.	Minn. R. 7007.0800, subp. 2
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide and Volatile Organic Compounds emissions.	Title I Condition: Testing associated with Title I emission limit; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide and Volatile Organic Compounds emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 36 months following Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 microns emissions. The tests shall be conducted at an interval not to exceed 36 months between test dates.	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 36 months following Initial Performance Test (7 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter < 10 microns emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 60 months following Initial Performance Test to measure Volatile Organic Compound emissions. The tests shall be conducted at an interval not to exceed 60 months between test dates.	Title I Condition: Testing associated with Title I emission limit; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days before each Performance Test) to measure Volatile Organic Compound emissions.	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

COMS REQUIREMENTS	hdr
Emissions Monitoring: The Permittee shall use a COMS to measure Opacity emissions from EU320.	Title I Condition: Monitoring associated with Title I emission limits; Minn. R. 7017.1006
COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1211, subp. 2; 40 CFR 60.13(d)(2)
COMS Calibration Error Audit: due before end of each calendar half-year following Permit Issuance. Conduct audits at least 3 months apart but no greater than 8 months apart. Filter values used shall be compliant with Minn. R. 7017.1210, subp. 3.	Minn. R. 7017.1210, subp. 3
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurementor report. Records shall be kept at the source.	Minn. R. 7017.1130
QA Plan Required: Develop and implement a written quality assurance plan which covers each COMS. The plan shall be on site and available for inspection. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210
COMS Monitoring Data: The Permittee shall reduce the COMS data to six-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the six-minute averaging period.	Minn. R. 7017.1200, subp. 1, 2, & 3
COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all COMS shall be in continuous operation. A COMS must not be bypassed except in emergencies where failure to bypass the COMS would endganger human health, safety, or plant equipment.	Minn. R. 7017.1090, subp. 1
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording, Nitrogen Oxide emissions, Carbon Monoxide emissions, Total Reduced Sulfur emissions, and either Oxygen or Carbon Dioxide.	Title I Condition: Monitoring associated with Title I emission limit; 40 CFR Section 60.45(a); Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS.	Minn. R. 7017.1170, subp. 3
TRS. If a RATA is performed during the calendar year, a CGA is not required. CEMS Cylinder Gas Audit (CGA): due before end of each calendar year following Permit Issuance	Minn. R. 7017.1170, subp. 1(A) and (B)
TRS CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar 60 months following Permit Issuance	Minn. R. 7017.1170, subp. 1(A) and (B)
CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following Permit Issuance. Conduct cylinder gas audit (CGA) at least 3 months apart but not greater than 8 months apart. If a RATA is performed during the calendar half-year a CGA is not required. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance . If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months from the date of the last test. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator 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. 7017.1130

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 340 Lime Kiln**

Associated Items: CE 340 Centrifugal Collector - Medium Efficiency

CE 341 Wet Scrubber-High Efficiency w/o Lime

GP 420 Boilers & Recovery furnace - NOx cap

MR 326 Lime Kiln

MR 327 Lime Kiln

MR 340 Lime Kiln

MR 341 Lime Kiln

SV 340

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 10.6 lbs/hour	Title I Condition: 40 CFR Section 52.21 (netting and modeling); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 9.4 lbs/hour	Title I Condition: 40 CFR Section 52.21 (netting and modeling); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0610, subp. 1(A)(2)
Sulfur Dioxide: less than or equal to 13.5 lbs/hour	Title I Condition: 40 CFR Section 52.21 (netting and modeling); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 42.5 lbs/hour	Title I Condition: 40 CFR Section 52.21 (BACT limit and modeling); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 23.7 lbs/hour	Title I Condition: 40 CFR Section 52.21 (BACT limit and modeling); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 11.4 lbs/hour , measured as C excluding methane.	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Sulfur - Total Reduced: less than or equal to 8 parts per million using 12-hour Average (calculated on a dry basis and corrected to 10% oxygen). The BACT limit is the same as the NSPS limit.	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); 40 CFR Section 60.283(a)(5); Minn. R. 7007.3000; Minn. R. 7011.2450
OPERATIONAL LIMITS	hdr
Fuel Usage: Limited to natural gas.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Control Equipment Monitoring: Observe and record once per operating day, the liquid flow rate for CE341.	Minn. R. 7007.0800, subp. 14
Install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the pressure loss of the gas stream through the control equipment. The monitoring device is to be certified by the manufacturer to be accurate to within a gage pressure of +/- 2 inches water gage pressure. The monitoring device shall be operational upon startup of the control equipment.	40 CFR Section 60.284(b)(2)(i); Minn. R. 7011.2450
Install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within +/- 15 percent of design scrubbing liquid supply pressure. The pressure sensor or tap is to be located close to the scrubber liquid discharge point. The monitoring device shall be operational upon startup of the control equipment.	40 CFR Section 60.284(b)(2)(ii); Minn. R. 7011.2450
Record once per shift, measurements obtained from the monitoring device for the continuous measurement of the pressure loss of the gas stream through the control equipment and from the monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the control equipment.	40 CFR Section 60.284(c)(4); Minn. R. 7011.2450
Pressure at nozzle: greater than or equal to 280 psi or as determined during the most recent performance test.	Minn. R. 7007.0800, subp. 14
Liquid Flow Rate: greater than or equal to 405 gallons/minute or as determined during the most recent performance test.	Minn. R. 7007.0800, subp. 14

Corrective Actions: If the monitored parameter is out of the range as described above, the Permittee shall follow the facility O&M Plan and perform the necessary corrective action(s) as soon as possible to get the parameters back into the correct range. The Permittee shall keep a record of the type and date of all corrective actions taken.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions. The performance test for NOx will also be used to determine an emission factor for use in calculating the NOx emissions from the lime kiln.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 36 months following Initial Performance Test to measure Total Particulate Matter and Particulate Matter <10 micron emissions. The tests shall be conducted at an interval not to exceed 36 months between test dates.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 36 months following Initial Performance Test (7 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	Minn. R. 7017.2030, subp. 4
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording the Total Reduced Sulfur emissions, and either Oxygen or Carbon Dioxide.	Title I Condition: Monitoring associated with Title I emission limits; 40 CFR Section 60.45(a); Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 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. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar year following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix F. If a RATA is performed during the calendar year, a CGA is not required.	Minn. R. 7017.1170, subp. 1(A) and (B)
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar 60 months following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 1(A) and (B)
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR pt. 60, App. F, section 3
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	40 CFR 60.13(e); Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator 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. 7017.1130; 40 CFR 60.7(f)
RECORD KEEPING	hdr
Recordkeeping: Monthly record, by the 15th of the following month, the amount of lime produced.	Minn. R. 7007.0800, subp. 6
NOx Emissions Calculation: The NOx emissions shall be calculated on a semi-annual basis. The NOx emission factor, obtained from performance test, shall be multiplied by the production rate of the black liquid solids production. The NOx emissions shall be calculated and converted to a tons/day basis for determining the total NOx emissions from the facility and comparison to the NOx cap (GP 420).	Minn. R. 7007.0800, subp. 6

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 420 Boiler #1**

Associated Items: CE 420 Other

GP 420 Boilers & Recovery furnace - NOx cap

MR 420 Boiler 1

MR 421 Boiler 1

SV 420

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7011.0510, subp. 1
Particulate Matter < 10 micron: less than or equal to 0.6 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (modeling and netting); Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity , except for one six-minute period per hour of not more than 60 percent Opacity.	Minn. R. 7011.0510, subp. 2
Nitrogen Oxides: less than or equal to 79.6 lbs/hour using 30-day Rolling Average	Title I Condition: 40 CFR Section 52.21(modeling); Minn. R. 7007.3000
OPERATIONAL LIMITS	hdr
Fuel burned: limited to natural gas. Non-condensible gas (NCG) is also oxidized in boiler #1. The amount of NCG burned in boiler #1 is limited under GP 340; the total number of hours that #1 and #2 boilers, combined, can be used for backup is 612 hours/year. The amount of NCG burned in boiler #1 is limited under GP 340.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording Nitrogen Oxide emissions.	Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS.	Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following Permit Issuance. Conduct cylinder gas audit (CGA) at least 3 months apart but not greater than 8 months apart. If a RATA is performed during the calendar half-year a CGA is not required. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance . If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months from the date of the last test. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator 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. 7017.1130

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 430 Boiler #2**

Associated Items: CE 430 Centrifugal Collector - Medium Efficiency

CE 431 Electrostatic Precipitator - High Efficiency

GP 420 Boilers & Recovery furnace - NOx cap

MR 430 Boiler 2

MR 431 Boiler 2

MR 432 Boiler 2

MR 433 Boiler 2

SV 430

SV 431

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 13.0 lbs/hour	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 11.7 lbs/hour	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7007.0800, subp. 2
Sulfur Dioxide: less than or equal to 9.4 lbs/hour . This limit does not apply when NCG is being oxidized in the #2 boiler.	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
Nitrogen Oxides: less than or equal to 100.2 lbs/hour using 30-day Rolling Average	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 122.4 lbs/hour using 3-hour Average	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 40.2 lbs/hour measured as C excluding methane.	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
OPERATIONAL LIMITS	hdr
Fuel Burned: Fuels to be burned are limited to bark, wood refuse, wastewater treatment sludge, and natural gas. Non-condensible gas (NCG) is also oxidized in boiler #2. The amount of NCG burned in boiler #1 is limited under GP 340; the total number of hours that #1 and #2 boilers, combined, can be used for backup is 612 hours/year. The amount of NCG burned in boiler #1 is limited under GP 340.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Fuel Usage: less than or equal to 27010 tons/month using 12-month Rolling Average . The fuel usage limit is for combined total of bark, wood refuse, and sludge and shall be expressed in units of green tons per month.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Fuel Usage: less than or equal to 5193 tons/month using 12-month Rolling Average (SLUDGE USAGE LIMIT).	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
ESP Monitoring: The COMS for this emission unit shall be used to assess proper operation of this ESP.	Minn. R. 7007.0800, subp. 2
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup of overfire air system to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	Minn. R. 7017.2030, subp. 4
Performance Test: due before end of each 60 months following Initial Performance Test to measure Total Particulate Matter and Particulate Matter <10 micron emissions. The tests shall be conducted at an interval not to exceed 60 months between test dates.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	Minn. R. 7017.2030, subp. 4
COMS REQUIREMENTS	hdr
Emissions Monitoring: The Permittee shall use a COMS to measure Opacity emissions from EU430.	Title I Condition: Monitoring associated with Title I emission limits; Minn. R. 7017.1006

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1211, subp. 2; 40 CFR 60.13(d)(2)
COMS Calibration Error Audit: due before end of each calendar half-year following Permit Issuance. Conduct audits at least 3 months apart but no greater than 8 months apart. Filter values used shall be compliant with Minn. R. 7017.1210, subp. 3.	Minn. R. 7017.1210, subp. 3
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurementor report. Records shall be kept at the source.	Minn. R. 7017.1130
QA Plan Required: Develop and implement a written quality assurance plan which covers each COMS. The plan shall be on site and available for inspection. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210
COMS Monitoring Data: The Permittee shall reduce the COMS data to six-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the six-minute averaging period.	Minn. R. 7017.1200, subp. 1, 2, & 3
COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all COMS shall be in continuous operation. A COMS must not be bypassed except in emergencies where failure to bypass the COMS would endganger human health, safety, or plant equipment.	Minn. R. 7017.1090, subp. 1
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording Nitrogen Oxide emissions.	Title I Condition: Monitoring associated with Title I emission limits; Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS.	Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following Permit Issuance. Conduct cylinder gas audit (CGA) at least 3 months apart but not greater than 8 months apart. If a RATA is performed during the calendar half-year a CGA is not required. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance . If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months from the date of the last test. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	Minn. R. 7017.1090, subp. 1
Recordkeeping: The owner or operator 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. 7017.1130

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 440 Boiler #3**

Associated Items: CE 440 Other

GP 420 Boilers & Recovery furnace - NOx cap

MR 440 Boiler 3

MR 441 Boiler 3

SV 440

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.003 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (netting, modeling); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.003 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (netting, modeling); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0510
Nitrogen Oxides: less than or equal to 0.050 lbs/million Btu heat input using 30-day Rolling Average	Title I Condition: 40 CFR Section 52.21 (BACT limit; modeling); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 0.090 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 33.6 lbs/hour	Title I Condition: 40 CFR Section 52.21(k) (modeling); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 0.0090 lbs/million Btu heat input , measured as C excluding methane (this is equivalent to 3.4 lb/hr).	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
OPERATIONAL LIMITS	hdr
Fuel Burned: Fuels to be burned are limited to natural gas.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Annual Capacity Factor: Record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for natural gas each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	Title I Condition: 40 CFR Section 52.21; 40 CFR Section 60.49b(d); Minn. R. 7007.3000
TESTING REQUIREMENTS	hdr
Performance Test: due 365 days after Permit Issuance to measure Volatile Organic Compounds and Carbon Monoxide emissions.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	Minn. R. 7017.2030, subp. 4
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording the Nitrogen Oxide emissions, and either Oxygen or Carbon Dioxide.	Title I Condition: Monitoring associated with Title I emission limits; NSPS Subp. Db; 40 CFR Section 60.45(a); Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 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. 7017.1170, subp. 3; 40 CFR pt. 60, App. F, section 4.1;
CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following Permit Issuance but in no more than three calendar quarters per calendar year. The RATA shall be conducted during the calendar quarter in which a CGA is not performed.	40 CFR pt. 60, App. F, section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	40 CFR pt. 60, App. F, section 5.1.1; Minn. R. 7017.1170, subp. 5
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR pt. 60, App. F, section 3
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	40 CFR 60.13(e); Minn. R. 7017.1090, subp. 1

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Recordkeeping: The owner or operator 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. 7017.1130; 40 CFR 60.7(f)
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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 450 Boiler #8**

Associated Items: CE 450 Other

GP 420 Boilers & Recovery furnace - NOx cap

MR 450 Boiler 8

MR 451 Boiler 8

SV 450

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.003 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (netting, modeling); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.003 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (netting, modeling); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0510
Nitrogen Oxides: less than or equal to 0.050 lbs/million Btu heat input using 30-day Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 0.090 lbs/million Btu heat input using 3-hour Average	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 33.6 lbs/hour	Title I Condition: 40 CFR Section 52.21(k) (modeling); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 0.0090 lbs/million Btu heat input measured as C excluding methane (this is equivalent to 3.4 lb/hr).	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
OPERATIONAL LIMITS	hdr
Fuel Burned: Fuels to be burned are limited to natural gas.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Annual Capacity Factor: Record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for natural gas each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	Title I Condition: 40 CFR Section 52.21; 40 CFR Section 60.49b(d); Minn. R. 7007.3000
TESTING REQUIREMENTS	hdr
Performance Test: due 365 days after Permit Issuance to measure Volatile Organic Compounds and Carbon Monoxide emissions.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	Minn. R. 7017.2030, subp. 4
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording Nitrogen Oxide emissions.	Title I Condition: Monitoring associated with Title I emission limits; 40 CFR Section 60.45(a); Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 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. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar year following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix F. If a RATA is performed during the calendar year, a CGA is not required.	Minn. R. 7017.1170, subp. 1(A) and (B)
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar 60 months following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 1(A) and (B)
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR pt. 60, App. F, section 3
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	40 CFR 60.13(e); Minn. R. 7017.1090, subp. 1

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Recordkeeping: The owner or operator 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. 7017.1130; 40 CFR 60.7(f)
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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 460 Boiler #9**

Associated Items: CE 460 Other

GP 420 Boilers & Recovery furnace - NOx cap

MR 460 Boiler 9

MR 461 Boiler 9

SV 460

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.003 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (netting, modeling); Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 0.003 lbs/million Btu heat input	Title I Condition: 40 CFR Section 52.21 (netting, modeling); Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0510
Nitrogen Oxides: less than or equal to 0.050 lbs/million Btu heat input using 30-day Rolling Average	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 0.090 lbs/million Btu heat input using 3-hour Average	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Carbon Monoxide: less than or equal to 33.6 lbs/hour	Title I Condition: 40 CFR Section 52.21(k) (modeling); Minn. R. 7007.3000
Volatile Organic Compounds: less than or equal to 0.0090 lbs/million Btu heat input measured as C excluding methane (this is equivalent to 3.4 lb/hr).	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
OPERATIONAL LIMITS	hdr
Fuel Burned: Fuels to be burned are limited to natural gas.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Annual Capacity Factor: Record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for natural gas each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.	Title I Condition: 40 CFR Section 52.21; 40 CFR Section 60.49b(d); Minn. R. 7007.3000
TESTING REQUIREMENTS	hdr
Performance Test: due 365 days after Permit Issuance to measure Volatile Organic Compounds and Carbon Monoxide emissions.	Title I Condition: Testing associated with Title I emission limits; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	Minn. R. 7017.2030, subp. 4
CEMS REQUIREMENTS	hdr
The Permittee shall install, calibrate, maintain and operate a continuous monitoring system for measuring and recording Nitrogen Oxide emissions.	Title I Condition: Monitoring associated with Title I emission limits; 40 CFR Section 60.45(a); Minn. R. 7017.1006
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 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. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar year following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix F. If a RATA is performed during the calendar year, a CGA is not required.	Minn. R. 7017.1170, subp. 1(A) and (B)
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar 60 months following Permit Issuance. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 1(A) and (B)
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR pt. 60, App. F, section 3
CEMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all CEMS shall be in continuous operation. A CEMS must not be bypasssed except in emergencies where failure to bypass the CEMS would endanger human health, safety, or plant equipment.	40 CFR 60.13(e); Minn. R. 7017.1090, subp. 1

Recordkeeping: The owner or operator 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. 7017.1130; 40 CFR 60.7(f)
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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 530 No. 4 Paper Machine**

Associated Items: SV 511
SV 512
SV 513
SV 514
SV 515
SV 516
SV 517
SV 518
SV 519
SV 524
SV 525
SV 530
SV 531
SV 532
SV 533
SV 534
SV 535
SV 536
SV 537

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity ; except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Fuel Burned: Fuels to be burned are limited to natural gas.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
Periodic Monitoring: the Permittee shall perform proper maintenance of the paper machine so as to prevent excessive amounts of particulate matter from being emitted from the associated stack/vents.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 602 Wastewater Treatment Plant Cooling Tower**

Associated Items: SV 602

What to do	Why to do it
Wastewater Process Throughput: less than or equal to 1700E6 gallons/year using 12-month Rolling Sum	Title I Condition: 40 CFR Section 52.21(j) (BACT limit); Minn. R. 7007.3000
Recordkeeping: Monthly wastewater processed rate and monthly calculation of 12-month rolling sum, by the 15th of the following month.	Title I Condition: Recordkeeping associated with Title I limit; Minn. R. 7007.0800, subp. 5
Reporting: Annually by January 30th, a report of the previous 12 monthly 12-month rolling sum calculations of wastewater throughput.	Minn. R. 7007.0800, subp. 6

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 901 Thermal Oxidizer - Moonlight Rock Landfill (1)**

Associated Items: CE 901 Direct Flame Afterburner

SV 901

What to do	Why to do it
Odorous Emissions Control: The Permittee shall operate and maintain a gas collection and flare system to control odorous emissions from the Moonlight Rock Landfill. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2
Temperature: greater than or equal to 1130 degrees F using 3-hour Rolling Average 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. A temperature recorder with hard copy shall be operated continuously when the flare is operating. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2
Retention Time: greater than or equal to 0.6 seconds . This is the minimum residence time in the flame zone. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2
Monitoring Requirements: - The gas flow shall be indicated whenever the flare is in operation and the amount of gas flared shall be calculated. - The inlet concentration of methane shall be recorded continuously whenever the flare is in operation. - The alarms indicating the flare is out shall be monitored by control room staff (manned 24 hours per day). The flare shall be restarted in a timely manner, such that the landfill gas collection system does not vent unflared gases to the atmosphere. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2
Flare System Requirements: - The vacuum system shall be enclosed to minimize noise. - A test port shall be provided. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Subject Item: **EU 902 Paint Spray Booth**

Associated Items: CE 902 Paper Filter (Not Accordian) - Use if paint filter not spec

SV 902

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity using 6-minute Average	Minn. R. 7011.0715, subp. 1(B)
Operating Hours: less than or equal to 1044 hours/year using 12-month Rolling Sum	Title I Condition: Limit taken to avoid classification as major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Spray Booth Operation: The particulate filter for the emission unit shall be securely in place whenever paint spraying occurs. The filter shall be maintained and replaced according to manufacturer's specifications.	Title I Condition: To limit emissions to avoid classification as major modification under 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: Monthly record of operating hours and monthly calculation of 12-month rolling sum, by the 15th of the following month.	Title I Condition: Recordkeeping for Title I Condition; Minn. R. 7007.0800, subp. 5
Reporting: Annually by January 30th, a report of the previous 12 monthly 12-month rolling sum calculations of spray booth operation.	Minn. R. 7007.0800, subp. 6

TABLE B: SUBMITTALS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

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

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

Send any application for a permit or permit amendment to:

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

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Brownstock Washer and Condensate MACT Schedule Report	due before 12/31/1999	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of the overfire air system for Boiler #2.	EU430
Operation and Maintenance Plan	due 90 days after Permit Issuance for review and approval by the Commissioner.	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Chlorine and Chlorine Dioxide emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV220
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Chlorine, Chlorine Dioxide and Chloroform emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV240
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.	SV327
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	EU340, EU430
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Opacity, Nitrogen Oxides, Sulfur Dioxide, and Total Reduced Sulfur emissions.	SV322
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide and Volatile Organic Compounds emissions.	EU320
Performance Test Notification (written)	due 30 days before Initial Performance Test to measure Volatile Organic Compound emissions.	SV322
Performance Test Notification (written)	due 30 days before Performance Test for Total Chlorinated HAPs (not including chloroform).	SV240
Performance Test Notification (written)	due 30 days before Performance Test to measure Sulfur Dioxide emissions.	SV322
Performance Test Notification (written)	due 30 days before Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	EU440, EU450, EU460
Performance Test Plan	due 30 days before Initial Performance Test to measure Chlorine and Chlorine Dioxide emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV220
Performance Test Plan	due 30 days before Initial Performance Test to measure Chlorine, Chlorine Dioxide and Chloroform emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV240
Performance Test Plan	due 30 days before Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.	SV327
Performance Test Plan	due 30 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	EU340, EU430

Performance Test Plan	due 30 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Opacity, Nitrogen Oxides, Sulfur Dioxide, and Total Reduced Sulfur emissions.	SV322
Performance Test Plan	due 30 days before Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide and Volatile Organic Compounds emissions.	EU320
Performance Test Plan	due 30 days before Initial Performance Test to measure Volatile Organic Compound emissions.	SV322
Performance Test Plan	due 30 days before Performance Test to measure Sulfur Dioxide emissions.	SV322
Performance Test Plan	due 30 days before Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	EU440, EU450, EU460
Performance Test Plan	due 60 days before Performance Test for Total Chlorinated HAPs (not including chloroform).	SV240
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Chlorine and Chlorine Dioxide emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV220
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Chlorine, Chlorine Dioxide and Chloroform emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV240
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.	SV327
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	EU340, EU430
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Opacity, Nitrogen Oxides, Sulfur Dioxide, and Total Reduced Sulfur emissions.	SV322
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide and Volatile Organic Compounds emissions.	EU320
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test to measure Volatile Organic Compound emissions.	SV322
Performance Test Report - Microfiche Copy	due 105 days after Performance Test for Total Chlorinated HAPs (not including chloroform).	SV240
Performance Test Report - Microfiche Copy	due 105 days after Performance Test to measure Sulfur Dioxide emissions.	SV322
Performance Test Report - Microfiche Copy	due 105 days after Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	EU440, EU450, EU460
Performance Test Report	due 45 days after Initial Performance Test to measure Chlorine and Chlorine Dioxide emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV220
Performance Test Report	due 45 days after Initial Performance Test to measure Chlorine, Chlorine Dioxide and Chloroform emissions. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV240

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Performance Test Report	due 45 days after Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.	SV327
Performance Test Report	due 45 days after Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compounds and Carbon Monoxide emissions.	EU340, EU430
Performance Test Report	due 45 days after Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Opacity, Nitrogen Oxides, Sulfur Dioxide, and Total Reduced Sulfur emissions	SV322
Performance Test Report	due 45 days after Initial Performance Test to measure Total Particulate Matter, Particulate Matter <10 micron, Sulfur Dioxide and Volatile Organic Compounds emissions.	EU320
Performance Test Report	due 45 days after Initial Performance Test to measure Volatile Organic Compound emissions.	SV322
Performance Test Report	due 45 days after Performance Test for Total Chlorinated HAPs (not including chloroform).	SV240
Performance Test Report	due 45 days after Performance Test to measure Sulfur Dioxide emissions.	SV322
Performance Test Report	due 45 days after Performance Test to measure Volatile Organic Compounds and Carbon Monoxide emissions.	EU440, EU450, EU460
Plans and Specifications	due 60 days after Permit Issuance. This is the Ambient TRS Plan. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Total Facility
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA) .	EU320, EU340, EU420, EU430, EU440, EU450, EU460
Testing Frequency Plan	due 90 days after Initial Performance Test for Nitrogen Oxides, Sulfur Dioxide, Volatile Organic Compound and Carbon Monoxide emissions. The plan shall specify a testing frequency for each pollutant using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	EU340
Testing Frequency Plan	due 90 days after Initial Performance Test for Sulfur Dioxide, Volatile Organic Compounds, and Carbon Monoxide emissions. The plan shall specify a testing frequency using the test data and MPCA guidance. When developing the plan, data from tests performed prior to permit issuance shall also be considered. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1	EU430
Testing Frequency Plan	due 90 days after Initial Performance Test for Volatile Organic Compounds and Carbon Monoxide emissions. The plan shall specify a testing frequency using the test data and MPCA guidance. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1	EU460

Testing Frequency Plan	due 90 days after Initial Performance Test for Volatile Organic Compounds and Carbon Monoxide emissions. The plan shall specify a testing frequency using the test data and MPCA guidance. When developing the plan, data from tests performed prior to permit issuance shall also be considered. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1	EU440, EU450
Testing Frequency Plan	due 90 days after Initial Performance Test to measure Chlorine and Chlorine Dioxide emissions. The plan shall specify a testing frequency for each pollutant using the test data and MPCA guidance. When developing the plan, data from tests performed prior to permit issuance shall also be considered. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV220
Testing Frequency Plan	due 90 days after Initial Performance Test to measure Chlorine, Chlorine Dioxide and Chloroform emissions. The plan shall specify a testing frequency for each pollutant using the test data and MPCA guidance. When developing the plan, data from tests performed prior to permit issuance shall also be considered. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1. This is a state only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	SV240
Testing Frequency Plan	due 90 days after Initial Performance Test to measure Total Particulate Matter and Particulate Matter < 10 microns emissions. The plan shall specify a testing frequency for each pollutant using the test data and MPCA guidance. When developing the plan, data from tests performed prior to permit issuance shall also be considered. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	SV327
Testing Frequency Plan	due 90 days after Initial Performance Test to measure Volatile Organic Compound emissions. The plan shall specify a testing frequency for each pollutant using the test data and MPCA guidance. When developing the plan, data from tests performed prior to permit issuance shall also be considered. Future performance tests based on year (12 month), 36 month, and 60 month inverals, or as applicable, shall be required on written approval of MPCA per Minn. R. 7017.2020, subp. 1.	SV322

TABLE B: RECURRENT SUBMITTALS

09/09/99

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

What to send	When to send	Portion of Facility Affected
Ambient Air Monitoring Report	due 45 days after end of each calendar quarter following Permit Issuance. This is the TRS Ambient Air Monitoring Report. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Total Facility
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Cylinder Gas Audit.	EU440
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). The EER must contain all of the information requested in 40 CFR 60.7(c). The EER shall indicate all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	EU440
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). 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.	EU320, EU420, EU430
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). The TRS CEMS EER shall indicate all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The reports shall clearly indicate which exceedances occurred during combustion of wood only and which occurred during combustion of any other fuel type or combination.	EU340, EU450, EU460
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1). Excess emissions for opacity are defined in 40 CFR Section 60.45(g)(1). The COMS EER shall indicate all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	EU320, EU430
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit.	EU320, EU430
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar half-year following Cylinder Gas Audit.	EU320, EU420, EU430
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Annual Report	due 30 days after end of each calendar year following Permit Issuance . A report of the previous 12 monthly 12-month rolling average calculations for the annual capacity factor shall be submitted.	EU440, EU450, EU460

TABLE B: RECURRENT SUBMITTALS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Annual Report	due 30 days after end of each calendar year following Permit Issuance. The annual Landfill Flare report shall contain the following data: flare downtime or bypassing, methane minimum concentrations, and flare minimum temperatures when the flare is operating. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	EU901
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604.	Total Facility
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar year following Cylinder Gas Audit.	EU340, EU450, EU460
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
Performance Test Notification (written)	due 30 days before end of each year following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	SV322
Performance Test Notification (written)	due 30 days before end of each year following Initial Performance Test (30 days before each Performance Test) to measure Total Reduced Sulfur emissions.	SV322
Performance Test Plan	due 30 days before end of each year following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	SV322
Performance Test Plan	due 30 days before end of each year following Initial Performance Test (30 days before each Performance Test) to measure Total Reduced Sulfur emissions.	SV322
Performance Test Report - Microfiche Copy	due 105 days after end of each year following Initial Performance Test (105 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	SV322
Performance Test Report - Microfiche Copy	due 105 days after end of each year following Initial Performance Test (105 days after each Performance Test) to measure Total Reduced Sulfur emissions.	SV322
Performance Test Report	due 45 days after end of each year following Initial Performance Test (45 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	SV322
Performance Test Report	due 45 days after end of each year following Initial Performance Test (45 days after each Performance Test) to measure Total Reduced Sulfur emissions.	SV322
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar year following CEMS Relative Accuracy Test Audit (RATA).	EU320, EU420, EU430, EU440

Compliance Status Report	due 30 days after end of each calendar 24 months starting 04/15/1999 (following initial Compliance Status Report). The Compliance Status Report will serve as the non-binding control strategy report and shall be prepared in accordance with the requirements in 40 CFR Section 63.455(b).	Total Facility
Performance Test Notification (written)	due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter < 10 microns emissions.	EU320
Performance Test Notification (written)	due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU340
Performance Test Notification (written)	due 30 days before end of each 36 months following Permit Issuance to measure Volatile Organic Compound and Total Reduced Sulfur emissions (30 days before each Performance Test).	SV173
Performance Test Plan	due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter < 10 microns emissions.	EU320
Performance Test Plan	due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU340
Performance Test Plan	due 30 days before end of each 36 months following Permit Issuance to measure Volatile Organic Compound and Total Reduced Sulfur emissions (30 days before each Performance Test).	SV173
Performance Test Report - Microfiche Copy	due 105 days after end of each 36 months following Initial Performance Test (105 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter < 10 microns emissions.	EU320
Performance Test Report - Microfiche Copy	due 105 days after end of each 36 months following Initial Performance Test (105 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU340
Performance Test Report - Microfiche Copy	due 105 days after end of each 36 months following Permit Issuance to measure Volatile Organic Compound and Total Reduced Sulfur emissions (105 days after each Performance Test).	SV173
Performance Test Report	due 45 days after end of each 36 months following Initial Performance Test (45 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter < 10 microns emissions.	EU320
Performance Test Report	due 45 days after end of each 36 months following Initial Performance Test (45 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU340
Performance Test Report	due 45 days after end of each 36 months following Permit Issuance to measure Volatile Organic Compound and Total Reduced Sulfur emissions (45 days after each Performance Test).	SV173
Performance Test Notification (written)	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU430

TABLE B: RECURRENT SUBMITTALS

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002 - 001

Performance Test Notification (written)	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) to measure Volatile Organic Compound emissions.	EU320
Performance Test Plan	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU430
Performance Test Plan	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) to measure Volatile Organic Compound emissions.	EU320
Performance Test Report - Microfiche Copy	due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU430
Performance Test Report - Microfiche Copy	due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test) to measure Volatile Organic Compound emissions.	EU320
Performance Test Report	due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test) to measure Total Particulate Matter and Particulate Matter <10 micron emissions.	EU430
Performance Test Report	due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test) to measure Volatile Organic Compound emissions.	EU320
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar 60 months following CEMS Relative Accuracy Test Audit (RATA).	EU340
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar 60 months following CEMS Relative Accuracy Test Audit (RATA).	EU450
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after end of each calendar 60 months following CEMS Relative Accuracy Test Audit (RATA).	EU460

APPENDIX MATERIAL

Facility Name: Boise Cascade Corp - International Falls

Permit Number: 07100002-001

Appendix A (not used in this permit)

Appendix B Exhibit M

Appendix C List of Insignificant Activities

EXHIBIT M

AMBIENT AIR MONITORING PROCEDURES
for
DETERMINATION OF COMPLIANCE

1. General
This exhibit shall apply to all emission facilities that are required to perform ambient air monitoring in order to demonstrate compliance of State and Federal ambient air quality standards or permit conditions, unless otherwise stated by special conditions of the permit.

2. Network design for criteria and non criteria pollutants
All air monitoring networks intending to demonstrate attainment with State and Federal ambient air quality standards must comply with the requirements in the Code of Federal Regulations Title 40 Part 58.14.

Location, number of monitors, parameters and duration of the study shall be determined through the permit process.

3. Probe and Siting Criteria
Probe siting and placement for criteria pollutants must comply with specifications described in the Code of Federal Regulations Title 40 Part 58 Appendix E.

Each monitoring site must have a site and monitor information form completed prior to submission of data (see attached appendix).

Probe siting for non criteria pollutants must meet requirements prescribed in the approved method for the target parameter (see para 4., Monitoring Methods).

4. Monitoring Methods
All criteria pollutants must be measured by U.S. Environmental Protection Agency (EPA) reference or equivalent methods, approved in accordance to Title 40 Part 58 Appendix C of the Federal Code of Regulations.

A list of "Designated Reference and Equivalent Methods" and "Acceptable Methods for Non criteria Pollutants" may be obtained by writing to :

U.S. Environmental Protection Agency
Office of Research and Development
Atmospheric Research and Exposure Assessment Laboratory
Quality Assurance Division (MD-77)
Research Triangle Park, NC 27711

The MPCA must be informed of any method change performed during the monitoring project. The method change must be reported within 45 working days from the end the reporting quarter in which the change took place.

Non criteria pollutants must be measured by methods approved by the U.S. EPA. If no method exists, MPCA will suggest candidate methods recommended by the U.S. EPA or other methodology.

5 Monitoring Plan / Quality Assurance Manual
Permittee or operator must submit a monitoring plan that incorporates a quality assurance plan to the MPCA Air Quality Division (see para 6 A., Data Submittal) at least 30 days prior the start date of the air monitoring project. The Agency shall review the monitoring and quality assurance plans to ensure compliance with EPA requirements of monitoring networks and determine whether adequate quality control measures are utilized to ensure acceptable levels of quality data.

A) Elements of Monitoring plan / Quality Assurance Manual
The primary guidance for developing a quality assurance plan is specified in the Code of Federal Regulations 40 Part 58 Appendix A.

In general, the following elements must be addressed in a monitoring plan:

1. General description of monitors and monitor location.
2. Description of calibration methods and reference standards.
3. Sampling schedule for manual methods.
4. Summary of standard operating procedures.
5. Description of routine quality control checks, including frequency.
6. Control limits for zero, span and other control checks including audits
7. Performance audit procedures and reference standard traceability.
8. Plan of action when monitors fail to meet control/audit limits.
9. Recording and validating data.
10. Format of data submission.

B) Audits
In addition to the quality assurance program developed by the permittee, the MPCA will conduct performance and systems audits on all criteria pollutant monitors. A similar audit format will be designed for non criteria pollutants dependent upon pollutant parameters.

Frequency of scheduled MPCA audits will be determined by the permit process.

6. Data Submittal
All permittees required to submit data to the agency must do so no later than 45 working days past the end of each calendar quarter. Monitoring data and quality control results must be submitted on computer diskettes in a suitable format. The two formats that are presently acceptable are EPA SAROAD and EPA AIRS. All data shall be submitted to the following address:

Minnesota Pollution Control Agency
Environmental Outcomes Division
Environmental Data Management Section
Supervisor, Air Unit
520 Lafayette Road
St. Paul MN, 55155

A) Criteria Pollutants
The permittee shall include the following data assessment information (as per CFR Title 40 Part. 58 App. A.) for each sampling quarter.

1. For automated analyzers -- precision probability limits from section 4.1 and percentage differences from section 4.2 of CFR 40 Part 58 App. A, section 5.1.2

2. For manual methods - precision probability limits from section 5.1 and percentage differences from section 5.2 and 5.3 of CFR 40 Part 58 App. A, section 5.3.2

3. All data used to calculate the reported estimates of precision and accuracy including span checks, reference standard certifications, collocated sampler and audit results must be made available to the MPCA upon request.

B) Non criteria Pollutants
Data collected for non criteria pollutants must be accompanied by any pertinent quality control information obtained during the reporting quarter. This would include the following information, where applicable:

1. Sampling train flow rate checks.
2. Field blank data.
3. Analytical blank data.
4. Spiked sample percent recoveries.
5. Calibration check standard results.
6. Internal audit results.
7. Sample Duplicate results

Any documentation deemed necessary to assess reported data including, laboratory and field logbooks, mass spectra data, strip charts and calibration data must be made available to the MPCA upon request.

C) Data Validation
The requirement for data recovery is 75 percent of all data possible from each sampling quarter for automated and manual methods. Minimum recovery for the meteorological parameters of wind speed and wind direction is 80 percent from each sampling quarter.

Data that is determined to be invalid must be deleted from the reported database. The reasons for invalidation of data must be reported to the MPCA. There should not be any correlation between missing data periods and expected highest concentrations.

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 07100002-001

This Technical Support Document (TSD) is for all the interested parties of the permit. The purpose of this document is to set forth the legal and factual basis for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 2621, 2611)
Boise Cascade Corporation 1111 Jefferson Street Boise, Idaho 83702	Boise Cascade Corporation 400 Second Street International Falls, Minnesota 56649 Koochiching County

1.2. Description of the facility

Boise Cascade Corporation operates an integrated Kraft pulp and paper mill in International Falls. The mill manufactures a variety of coated and uncoated fine paper products. The facility consists of a woodyard, chip processing center, pulp mill, bleach plant, chemical recovery system, power plant, wastewater treatment facility, industrial landfill, paper mill, finishing and sheeting, warehouse, and shipping facilities. In 1989 and 1990, Boise underwent an expansion that included the installation of a new paper machine, a new bleach plant, a new lime kiln, modification of the chemical recovery furnace, and other upgrades.

This Part 70 permit is an air emission operating permit required by Title V of the federal Clean Air Act Amendments of 1990, codified in 40 CFR pt. 70. "Part 70" is a section in the Code of Federal Regulations for the Protection of the Environment. Previously, the facility operated under a total facility permit, which was also a Prevention of Significant Deterioration (PSD) permit, issued by the Minnesota Pollution Control Agency (MPCA) on May 12, 1989. There have subsequently been nine amendments to the permit.

Boise's Part 70 operating permit will be a consolidation of existing conditions from the 1989 PSD permit and subsequent amendments. This permit will also incorporate more detailed requirements for monitoring and recordkeeping of the emission units, pollution control equipment, and all new rules and existing regulations that apply to Boise Cascade at the time of this permit. The permit will also meet all requirements of Minn. R. 7007.0800, that specifies requirements for the content of Part 70 permits.

1.3 Description of any changes allowed with this permit issuance

This permit includes a PSD modification for the Boiler No. 2, which is an overfire air project. This project is a waste reduction measure which will allow Boise to burn more sludge and bark in the boiler rather than landfilling the sludge and bark, and which will reduce the carbon content of the ash from 45 percent to 10 percent. The overfire air project is essentially a (Nitrogen Oxide) NO_x control method, which will reduce the amount of NO_x generated for a given amount of sludge or wood burned, which will allow Boise to burn more sludge and wood on an hourly basis, while still remaining within their NO_x emission limit. This is a new technology that has never been demonstrated on a wood-waste boiler.

1.4. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU/ SV No.	**Emission Unit Description**	**PM** tpy	**PM_{10}** tpy	**SO_2** tpy	**NO_x** Tpy	**CO** tpy	**VOC** tpy	**TRS** tpy	**All HAPs** Tpy
SV 173	Brown Stock Washers			1.78			35.62	19.2	77.5
SV 220	ClO2 Generator						0.05		0.77
SV 240	Bleach Plant			0.08		131	1.50	0.075	32.3
EU 320	Recovery Furnace	114	85	657	350	1597	116	18.0	22.3
SV 322	Smelt Dissolving Tank	23.0	22.2	17.3	6.93		17.3	6.93	33.4
SV 327	Lime Slaker	3.99	3.99				2.39	0.163	9.42
EU 340	Lime Kiln	46.2	41.1	59.1	186	104	50.0	5.00	1.52
GP 340	NCG Venting and Primary Incineration						1.43	1.76	0.082
EU 420	Boiler No. 1	5.23	5.23	1.05	349	54.7	2.44		0.83
EU 430	Boiler No. 2	56.9	51.3	41.0	439	536	178		3.7
GR 430	NCG Diverting-Backup Incineration			74.7			0.27		
EU 440	Boiler No. 3	4.90	4.90	0.98	81.7	147	14.7		5.00
EU 450	Boiler No. 8	2.69	2.69	0.54	44.9	80.8	8.08		2.74
EU 460	Boiler No. 9	2.69	2.69	0.54	44.9	80.8	8.08		2.74
EU 602	Wastewater Treatment Cooling Tower						23.1	4.10	7.02
EU 901	Thermal Oxidizer			14.2	14.3	1.1	0.42	0.42	
EU 902	Paint Spray Booth						23.5		
	Misc. Sources						153	9.25	121
	Fugitive Sources	208	73.9				15.3		16.7
	Totals	468	293	868	1516	2732	651	64.9	337

	PM tpy	PM_{10} tpy	SO_2 tpy	NO_x Tpy	CO tpy	VOC tpy	TRS tpy	All HAPs Tpy
Total Facility Limited Potential Emissions	468	293	868	1516	2732	651	64.9	337
Total Facility Actual Emissions	317	141	54.0	892	1333	254	43.3	274

Table 2. Facility (TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)	PM, PM_{10}, SO_2, NO_x, VOC, CO		
NAAR (list pollutant) ***Not applicable***			
Part 70 Permit Program (list pollutant)	PM, PM_{10}, SO_2, NO_x, VOC, CO		

* 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.

2. Regulatory and/or Statutory Basis

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

Regulatory Overview of Facility
The purpose of this table is to give a summary overview of the significant sources of emissions and the applicable regulations and standards (e.g., NESHAPs, NSPS. Title I conditions, special operating parameters)

EU, GRP, or SV #	Applicable Regulations	Comments:
EU 440; EU 450; EU 460	40 CFR pt. 60, subp. Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
GP 340; SV 322; EU 145; EU 320; EU 340	40 CFR 60, Subp. BB	Standards of Performance for Kraft Pulp Mills

numerous	40 CFR 52.21	Prevention of Significant Deterioration. BACT limits set for NO_x, VOCs, TRS. Limits set for PM, PM_{10}, SO_2 due to modeling and netting.
EU 902	40 CFR 52.21	Prevention of Significant Deterioration. Limit taken to avoid classification as major modification
EU 420; EU 430	Minn. R. 7011.0510	Standards of Performance for New Indirect Heating Equipment
SV 327; EU 902	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment
GP 420	40 CFR § 52.21	Cap limit for NO_x for combustion units (i.e. boilers and recovery furnace). Total NO_x cap includes combustion units as well as the lime kiln and smelt dissolving tank. Limit was set due to visibility concerns for Class I area.
SV 220, SV 240		Limits for toxics (chlorine, chlorine dioxide, chloroform) set due to risk assessment performed for EAW for 1989 permit
GP 340; GP 421; SV 173; SV 220; SV 240	40 CFR pt. 63, subp. S	National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry

3. PSD Review

The Boiler No. 2 overfire air project was reviewed with the "Efficiency Improvement Project" for an Environmental Assessment Worksheet (EAW) and for PSD purposes. The Efficiency Improvement Project will allow an increase in the amount of pulp that Boise can produce, and thus the amount of wood purchased by the mill. Due to the increase in logging associated with the Efficiency Improvement Project, many comment letters were received on the Efficiency Improvement part of the EAW. Therefore, it was decided to separate the Boiler No. 2 project and proceed with permitting the Boiler No. 2 project in conjunction with the Title V permit. The Efficiency Improvement Project, also a PSD modification, will be permitted at a later time.

Boise has prepared a PSD Permit Application and revised it in accordance with comments received from the MPCA and the Federal Land Managers (FLMs). The final revised document is dated March 31, 1999. The PSD Permit Application considered the Boiler No. 2 project together with the Efficiency Improvement Project. These projects are separate projects, but are expected to occur within a short period of time, and therefore were considered together for determining pollutant applicability, for modeling and for the Additional Impacts Analysis.

The applicability analysis determined that the pollutants which were to be subject to PSD review included NO_x, Carbon Monoxide (CO), Volatile Organic Compound (VOC), Sulfur Oxide (SO_2), TRS and Particulate Matter (PM)/Particulate Matter less than 10 μm in size (PM_{10}). The BACT analysis for the Boiler No. 2 project looked at all of these pollutants except for TRS, which is not a pollutant expected to be emitted from the boiler. The results of the BACT analysis are summarized below.

BACT Analysis

The technologies considered for control of NO_x were Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR) and combustion design/combustion control. The SCR and SNCR control methods were determined to be technologically infeasible, due to the difficulties in obtaining the correct temperature window for injection, the problems of ammonia slip, the possibility of the creation of secondary salts within the system. The problem of obtaining the correct temperature window for injection of ammonia is compounded by the fact that the fuel mix for the boiler changes, causing the temperature window to move. Therefore, good combustion control was determined to be BACT for Boiler No. 2. In addition, the overfire project is itself a technology designed to minimize NO_x emissions.

Carbon Monoxide and VOCs were considered together, since the same technologies are used to control these pollutants. The technologies considered were thermal incineration, catalytic oxidation, and good combustion control. Although thermal incineration and catalytic oxidation would be technologically feasible, these technologies have very high cost and would not be economically feasible. Even more important, these technologies would result in the combustion of additional fuel and would generate NO_x emissions. Since visibility impact on the Class I areas have been a significant concern in the past, and continue to be a concern, it would not be acceptable to increase the emissions of NO_x in order to control the VOCs and CO from the boiler. Therefore, good combustion control is the method selected for obtaining BACT for VOCs and CO from the boiler. Also, the overfire air project will result in improved combustion control which will help to minimize formation of VOCs and CO.

The technologies considered as BACT for control of particulate matter, in order of their expected efficiency, were a baghouse, an Electrostatic Precipitator (ESP), and a scrubber, although a baghouse and ESP may be considered essentially equivalent for wood waste boilers. Although there have been some cases where baghouses were installed on wood waste boilers, they are considered technologically infeasible for this facility due to problems of condensed moisture in the baghouse and possible freezing which could result during winter months. An ESP is expected to achieve the same level of control that a baghouse would in this application with fewer problems, and is technologically feasible; in fact, the boiler has an ESP currently. Since an ESP is more effective than a scrubber, scrubbers were not considered in the BACT analysis, and it was concluded that an ESP will be used as the control method to achieve the BACT determination of 13 lb/hr for PM and 11.7 lb/hr for PM_{10}.

The SO_2 BACT analysis considered four control technologies: flue gas desulfurization (e.g. spray dryers), dry sorbent injection, wet scrubbers, and fuel sulfur limitations. The exhaust gas from the boiler has low SO_2 concentrations. The technologies listed above, with the exception of fuel sulfur limitations, are currently used on emission units that have higher concentrations of SO_2 present in the exhaust gas.

These technologies would be considered to be developmental technologies for the boiler and thus were not considered technologically feasible for this analysis. Also, these technologies would result in additional solid waste, which would offset the volume reduction sought with the overfire air project and would render the project meaningless. There has also been some indication that the solid ash present in a wood waste boiler provides some SO_2 control. Therefore, the BACT selected for this boiler is the limitation of fuel types to natural gas, wood refuse, bark and WWTP sludge, all of which have a relatively low sulfur content and thus would limit the amount of SO_2 that could be produced.

Ambient Air Quality Analysis

Boise performed the Class II air quality analysis in three parts and considered the Boiler No. 2 project together with the efficiency improvement project. The first part of the analysis was a preliminary analysis in which project-related increases were modeled to determine which pollutants were subject to full impact analysis and to determine the area of significant impact. Second, dispersion modeling, using ISCST3, was done to compare modeled impacts to federal and state ambient air quality standards. The third part of the analysis involved modeling the change in ambient air concentrations from increment consuming sources to compare to PSD allowable increments.

The results of the preliminary analysis indicated that there was no significant impact zone for CO and therefore the CO analysis was complete. Full analysis was required for NO_x, SO_2, and PM_{10}. Modeling was also performed for H_2S, which was not triggered for PSD review, but was evaluated for compliance with the state standard. A summary of the National Ambient Air Quality Standards (NAAQS) and Minnesota Ambient Air Quality Standards (MAAQS) modeling results for NO_x, SO_2, and PM_{10} are given below:

Pollutant	**Ave. Period**	**Maximum Predicted Impacts (μg/m3)**		**National Ambient Air Quality Standard**		**Minnesota Ambient Air Quality Standard**	
		Conc. w/o bkgd	**Conc. w/bkgd**	**Primary Standard (μg/m^3)**	**Secondary Standard (μg/m^3)**	**Primary Standard (μg/m^3)**	**Secondary Standard (μg/m^3)**
NO_x	Annual	38	46	100	100	100	100
SO_2	Annual	2	5	80	--	80	60
	24-Hour	32	45	365[a]	--	365[a]	365[a]
	3-Hour	608	637	--	1300[a]	--	915[a]
	1-Hour	766	798	--	--	1300[a]	--
PM_{10}	Annual	37	47	50	50	--	--
	24-Hour	77	95	150[a]	150[a]	--	--
H2S	½-Hour	37	38	--	--	70[b]	--
	½-Hour	<42	<42[d]	--	--	42[c]	--

[a] Not to be exceeded more than once per year; therefore, the maximum second-highest results are shown.

[b] Not to be exceeded more than twice per year; the maximum second-highest result is shown.

[c] Not to be exceeded more than twice in five consecutive days at any given receptor.

[d] During the five modeled years, the 42 μg/m^3 standard was never exceeded more than twice within five consecutive days at any given receptor; therefore, the standard is met.

A summary of the increment consumption results for PM_{10}, NO_x and SO_2 is given below:

Pollutant	Avg. Period	Maximum Modeled Impact ($\mu g/m^3$)	PSD Class II Increment ($\mu g/m^3$)
NO_x	Annual	11	25
SO_2	Annual	2	20
	24-Hour	28	91[a]
	3-Hour	102	512[a]
PM_{10}	Annual	0.12	17
	24-hour	9.4	30[a]

[a] Not to be exceeded more than once per year; therefore, the maximum second-highest results are shown.

As a result of the modeling, it was determined that none of the applicable ambient air quality standards would be violated and that none of the applicable increments established by the PSD rule would be violated.

Class I Impact Analysis
Boise also performed a Class I Impact Analysis. Those results are not summarized here, since the boiler project has a very small impact on the Class I areas. The primary concern in the Class I areas has been visibility concerns, mainly related to NO_x emissions. There is no increase in NO_x associated with the Boiler No. 2 project. Boise has evaluated the air quality related impacts on the Class I areas in the PSD application; the evaluation was performed with the efficiency improvement project and the Boiler No. 2 project combined. Boise is continuing to work with the Federal Land Managers to ensure that their concerns are addressed.

Additional Impacts Analysis
The PSD permit application included an Additional Impacts Analysis. Again, the analysis was performed with the Efficiency Improvement project and the Boiler No. 2 project combined. The analysis concluded that there would be no adverse impacts due to the projects.

3. Cluster Rule
The Cluster Rule is a multimedia rule promulgated by EPA in April 1998. The rules addresses water discharges from Kraft paper mills as well as Hazardous Air Pollutants (HAPs) emissions. The rules addressing the air emissions are the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from the Pulp and Paper Industry. The NESHAPs are sometimes referred to as MACT rules since the NESHAPs establish maximum achievable control technology (MACT) for control of HAPs.

The MACT standards have been developed in three parts; MACT I and MACT III were promulgated as part of the Cluster Rule. MACT II has been proposed and was scheduled to be promulgated in the year 2000. The three parts of the MACT standards, as they apply to Kraft mills, were developed as follows:

- MACT I: controls HAP emissions from pulping process;
- MACT II: controls HAP emissions from the pulping chemical recovery combustion areas; and
- MACT III: controls HAP emissions from papermaking systems, including bleaching.

MACT I and III were promulgated on April 15, 1998, as part of the Cluster rules. The deadline for coming into complete compliance is April 16, 2006. An intermediate deadline of April 16, 2001 exists for some requirements related to bleaching and the control of pulping process condensates and for Boise's NCG system, also referred to as a low-volume, high-concentration (LVHC) system. The deadline of 2006 applies to the high-volume, low-concentration sources, such as the brownstock washer system.

The MACT rule was written to give facilities options in how to achieve and demonstrate compliance with many of the standards within the rule. Boise has not yet determined exactly which alternatives they will be following. The MACT rule has been incorporated into the permit as much as possible at this point. The permit requires that Boise submit a schedule for determining the compliance options, primarily for the brownstock washer and condensate systems.

3. Permit

The proposed permit is organized into a cover page section, Table A and Table B. The cover page section has four pages and contains the Permittee's name and address and other standard requirements. Table A contains the emission limits and requirements of the proposed permit. Table A is further broken down into five subparts which organize the emission limits and requirements, such as monitoring and record keeping, at different levels. The levels are the entire Facility (FC), Stack/Vent (SV), Emission Unit (EU), Control Equipment (CE) and Fugitive Source (FS). Table B contains the submittal requirements of the permit. The submittals include notifications, compliance plans and modeling.

Total Facility Requirements

Production Limits. There are several limits on production for the facility; these limits were set as a result of the 1989 PSD permit for the expansion of the facility, and are Title I limits. These limits remain in place for this permit. It is anticipated that the limits will be removed or changed as part of the Efficiency Improvement project; if that is the case, a PSD permit amendment will be drafted and placed on public notice prior to issuance.

Ambient TRS Plan. The Permittee must submit a plan describing the monitoring to be performed for ambient TRS and the actions that will be taken if the ambient TRS target level is exceeded. The ambient TRS target is set at 50 ppb and is based on odor concerns. The Permittee will follow the QA/QC procedures that are included as Appendix B to the permit. The plan will describe the procedures to use to determine when monitoring can be ended. Boise will be allowed to end the ambient monitoring when there have been two years of data which shows that the ambient TRS target has been met.

Operation and Maintenance Plan. The O&M plan shall include the following air pollution control equipment: CE220, CE240, CE320, CE322, CE323, CE340, CE341, CE430, CE431 and the flare (EU 901). It shall include a preventative maintenance program for that equipment, description of corrective actions to be taken in the event of a malfunction, breakdown, or exceedance of operating ranges specified in the permit for that control equipment; description of the employee training program; and the records kept to demonstrate plan implementation. The Commissioner may require additions or changes to the O&M plan when granting approval. The Permittee will be given an opportunity to comment on any required additions or changes to the plan before the Commissioner grants approval of the plan. The O&M plan is due 90 days after permit issuance.

Fugitive Control Plan. The Fugitive Control Plan will describe the activities that Boise will be following to minimize fugitives, particularly from paved and unpaved roads. The Plan will incorporate requirements that were previously contained in a permit. These requirements are not being eliminated, but will be in the Plan, which is to be submitted within 90 days of permit issuance and will be made an enforceable part of the permit.

NCG Venting. The permit specifies the procedure to be followed if the NCGs cannot be controlled by either the primary control method (lime kiln) or one of the two backups (Boiler Nos. 2 or 1). The intent of this requirement is to limit the amount of time that NCGs would be vented in an uncontrolled manner. This will help to alleviate potential odors or concerns with compliance with ambient air quality standards, primarily for H_2S. In any case, the total amount of venting time allowed in a year is limited by a requirement under GP 340.

Insignificant Activities. A list of activities and sources that were determined by Boise to be insignificant are attached as Appendix C to the permit. Although there may be applicable requirements, such as Minn. R. 7011.0700 - 0735 (Industrial Process Equipment rule), periodic monitoring is not required for these emission units. The likelihood of these units violating the applicable requirement is low. Also, any possible environmental impacts with any such violation would be inconsequential. In addition, this requirement in the permit requires that any silos, baghouses, and cyclones, which are not included specifically in Table A of the permit, must be properly operated and maintained. This is sufficient for periodic monitoring for these sources.

MACT Requirements. Some of the MACT requirements that are not emission unit specific are placed in the Total Facility section. This includes the standards and monitoring requirements for enclosures and closed-vent systems. There are some requirements in the MACT standard which have compliance options and which the Permittee had not, as of the date of the permit, decided on which option to comply with. Therefore, the permit contains a requirement for a schedule that will describe when the Permittee expects to determine the options that will be used to be in compliance with the MACT.

MACT Requirements - General Provisions. The General Provisions for the MACT standards are summarized and placed in the Total Facility section of the permit. These requirements are the standard language that has been developed by the MPCA to go in permits for facilities subject to a MACT standard.

General Total Facility Requirements. There are many requirements listed in this section that are standard for all Title V permits.

GP 340 NCG Incineration and Venting

This group contains the emission units that comprise the LVHC (low volume, high concentration) system.

The NSPS for Kraft pulp mills requires control of the gases from the NCG system to control TRS. The means of control at the facility is to collect the NCG and incinerate them in the lime kiln, which has a TRS limit of 8 ppm. The backup for the NCG system, if the lime kiln is down, is to incinerate the gases in Boiler Nos. 2 or 1. There is a limitation on the number of hours per year that the boilers can be used for backup; this limit is 612 hours, combined for the two boilers. Boiler No. 2 is to be the first choice, as this boiler has a higher stack, which will result in better dispersion, and burns wood. There is some evidence that wood ash provides some scrubbing of SO_2. If the lime kiln or boilers are unavailable for NCG incineration, the NCGs may be vented to the atmosphere. However, the venting is limited both in the length of time per episode (see requirement under Total Facility) and total amount of time per year (30 hours per year). The amount of venting that this permit allows is substantially less than the amount that would be allowed under the MACT; the MACT would allow the gases to be uncontrolled for 10 percent of the time. The requirement for a minimum amount of venting is to minimize ambient TRS and associated odors.

The MACT also requires control of the NCGs, to control HAP emissions. Incineration in the lime kilns, or boilers as backup, satisfies the MACT requirements. The MACT also requires that the equipment be enclosed and vented to a closed-vent system and that the requirements for such a system, as described in the Total Facility requirements, be met.

The Permittee must keep records and report on an annual basis, the amount of time that the NCGs are incinerated in the boilers and are vented to the atmosphere. The NSPS and MACT do not require monitoring of the temperature of the lime kiln or boilers; the design of these units satisfies the temperature and residence time needed to combust the NCGs.

GP 420 Boilers and Recovery Furnace - NO_x Cap

A NO_x cap for the combustion units, i.e. Boiler Nos. 1, 2, 3, 8 and 9 as well as the recovery furnace, was established in the 1989 permit. The lime kiln and smelt dissolving tank are being added to the NO_x cap as part of this permit, due to concerns from the FLMs.

There is a NO_x limit (3.67 tons/day) for Boiler Nos. 1, 2, 3, 8, 9 and the recovery furnace as a group. The limit was initially set in the PSD permit issued for the facility's expansion in 1989 and is a result of visibility concerns for a Class I area near the facility. CEMS are used on each emission unit to measure NO_x and the NO_x emissions are calculated daily and compared to the limit. Boise will also calculate, on a semi-annual basis, the NO_x emissions from the lime kiln and smelt dissolving tank. These emissions will be added to the emissions data available from the CEMS to evaluate the total NO_x emissions, which are required to remain under 4.18 tpd..

GP 421 Kraft Pulping Process Condensates

This group contains the emission units that comprise the Kraft pulping process condensates as defined in the MACT. At the time of drafting this permit, Boise had not selected the control method for the condensates. Boise will set a schedule for determining the control option and monitoring methods in the Brownstock Washer and Condensate Schedule that is described under the Total Facility subject item. The condensates to be treated must be conveyed in a closed collection system which meets the requirements of the MACT and as described under the Total Facility subject item. The compliance date under the MACT for the condensates is April 16, 2001.

GP 422 Paper Machines

The paper machines are subject to Minn. R. 7011.0700 - 0735, the Industrial Process Equipment rule. The paper machines emit primarily VOCs, and only a small amount of particulate. Since there is very little particulate emitted, and therefore very little likelihood of violating the applicable requirement, there is no requirement for periodic monitoring. The paper machines are included here primarily as a reminder that these emission units exist and could emit significant amounts of VOCs. Although there is currently no applicable requirement related to the VOCs, a large enough modification to the machines could be subject to PSD requirements.

SV 173 Brown Stock Washing System

(EU 173 - Brown Stock Washing (BSW), EU 174 - Brown Stock Decker)

The VOC and TRS limit is a BACT limit originally set in the 1989 permit. The brown stock washing system is also subject to NSPS subp. BB. The NSPS requires control of TRS from the BSW unless the Permittee can demonstrate that it is not economically feasible to do so; Boise has demonstrated that the cost is too high and therefore has not been required to add control to the BSW. However, the MACT requires control of HAPs from the BSW, although the compliance date is not until the year 2006. Boise must submit the Brownstock Washer and Condensate Schedule, in which they will set the schedule for determining what type of control will be used for the BSW.

Periodic monitoring: there currently is no control device and thus no monitoring associated with a control device. Performance tests will be done for VOCs and TRS at 3-year intervals.

SV 220 ClO2 Generator
(EU 220, EU 221, EU 222, EU 223, EU 224, EU 225, EU 226, EU 227, EU 228, EU 229, EU 230; CE 220 (scrubber))
Emission limits for chlorine and chlorine dioxide were established in the 1989 permit as a result of the risk assessment that was performed as part of the EAW process for the expansion. These are state only limits.

The periodic monitoring for this stack consists of monitoring the control equipment, a scrubber. The parameters to be monitored are the pressure drop of the gas stream and the scrubbing liquid supply pressure. Also, a performance test for chlorine and chlorine dioxide is to be done within a year of permit issuance.

SV 240 Bleach Plant
(EU 240 through EU 248, CE 240 (scrubber))
The bleach plant is subject to the MACT; the compliance date for the bleach plant is April 16, 2001. The MACT established a total chlorinated HAP emission limit and also requires that the equipment be enclosed and vented into a closed-vent system. The MACT also requires that the Permittee either comply with effluent limitation guideline and standards or use no hypochlorite or chlorine in the bleaching process.

Periodic monitoring for this stack consists of monitoring the control equipment, a scrubber. The MACT requires that the following parameters are continuously monitored for a gas scrubber: the pH of the scrubber effluent; the gas inlet flow rate; and the liquid influent flow rate. However, it is expected that EPA will amend the rules to eliminate the requirement to monitor the gas inlet flow rate. The total chlorinated HAPs must be measured using the performance test method described in the MACT.

There are also emission limits for chlorine, chlorine dioxide and chloroform. These limits were established in the 1989 permit as a result of the risk assessment that was performed as part of the EAW process for the expansion. These are state only limits. A performance test is to be done after permit issuance to measure the emissions for these pollutants.

SV 322 Smelt Dissolving Tank
(EU 322, EU 323, EU 324, CE 322, CE 323)
There are emission limits for PM, PM_{10} and SO_2 that were established in the 1989 PSD permit as a result of modeling and netting. The VOC and TRS limits are BACT limits also resulting from that permit. The TRS BACT limit is identical to the NSPS subp. BB limit.

The NSPS also requires that the control equipment, a scrubber, be monitored. The monitored parameters include the pressure drop of the gas stream and the scrubbing liquid supply pressure. However, the parameters that the Permittee will rely on for determining when corrective action is required are the pressure drop and liquid flow rate, since monitoring the scrubbing liquid supply pressure is generally not considered meaningful.

Besides the monitoring described above, performance tests are required for PM, PM_{10}, SO_2, VOCs, and TRS. PM, PM_{10}, SO_2 and TRS are to be measured within 365 days after permit issuance; VOCs are to be measured within 3 years of permit issuance. Performance tests for SO_2 will be performed every five years after the initial test after permit issuance. A testing frequency plan will be submitted after testing for the other pollutants. The plan will be developed based upon historic test results as well as the most recent results. It is expected that testing for PM, PM10 and TRS may be conducted on an annual basis, at least initially, until several consecutive tests have been conducted which show a sufficient margin of compliance. A performance test will also be conducted to measure NO_x and to establish an emission factor that will be used to calculate NO_x emissions for comparison to the NO_x cap.

The smelt dissolving tank does not have any requirements from the MACT standard already promulgated, but will be regulated by a MACT that was scheduled to be promulgated in 2000.

SV 327 Lime Slaker
(EU 327, EU 328, EU 329, EU 330, EU 350, CE 327)

The emission limits for PM and PM_{10} were established in the 1989 permit as a result of netting and modeling. The opacity limit is from the Industrial Process Equipment rule.

Periodic monitoring for this stack includes monitoring the pressure drop and liquid flow rate for the gas scrubber and conducting a performance test for PM and PM_{10} within one year after permit issuance.

EU 145 Foul Condensate Stripper

Gases from the foul condensate stripper are required by NSPS subp. BB to be controlled; the Permittee does this by combusting the gases in the lime kiln. However, if the lime kiln can not be operated, rather than combusting the gases in one of the two backup boilers, as is done for the rest of the NCG system, the stripper is shut down.

EU 320 Recovery Furnace
(CE 320 ESP)

Emission limits for PM, PM_{10}, and SO_2 were established in the 1989 permit as a result of modeling and netting. NO_x and CO have a limit in lb/hr due to modeling and netting, and limits expressed in parts per million that were established as BACT limits. The VOC and TRS limits are BACT limits. NSPS subp. BB also has a limit for TRS, which is identical to the BACT limit. The recovery furnace is included in the NO_x cap limit (GP 420).

There is an operational limit that limits the fuel to natural gas; black liquor solids are also oxidized in the emission unit. These are the conditions that were relied upon in the BACT analysis and modeling analysis for the 1989 permit.

The Permittee has an ESP for control of the particulate emissions; rather than put parameters in the permit for monitoring of the ESP, the Permittee shall use the continuous opacity monitor to ensure proper operation of the ESP. The O&M Plan will specify additional details. The Permittee will have a COMS and will have CEMS for measuring CO, NO_x and TRS. In addition to this monitoring, performance tests will be done within 365 days of permit issuance for PM, PM_{10}, SO_2, and VOCs. PM and PM_{10} will be measured every 3 years thereafter and VOCs will be measured every 5 years; a testing frequency plan will be submitted which will set the testing frequency for SO_2.

The MACT I and III standards do not include the recovery furnace; the recovery furnace will be addressed in MACT II, which is yet to be promulgated.

EU 340 Lime Kiln
CE 340 (cyclone), CE 341 (Scrubber)

Emission limits for PM, PM_{10}, and SO_2 were established in the 1989 permit as a result of modeling and netting. The NO_x, CO, VOC and TRS limits are BACT limits. NSPS subp. BB also has a limit for TRS, which is identical to the BACT limit. The lime kiln will be included in the total NO_x cap (GP 420).

There is an operational limit that limits the fuel to natural gas; this fuel type was relied upon in the BACT analysis and modeling analysis for the 1989 permit.

NSPS subp. BB requires that the control equipment, a scrubber, be monitored. The monitored parameters are the pressure drop of the gas stream and the scrubbing liquid supply pressure. The parameters that the Permittee will rely on for determining when corrective action is required are the liquid flow rate and caustic addition rate.

The Permittee will have CEMS for measuring TRS. In addition to this monitoring, performance tests will be done within one year of permit issuance for PM, PM_{10}, NO_x, SO_2, CO, and VOCs. PM and PM_{10} will be measured every 3 years thereafter. The Permittee shall submit a Testing Frequency Plan to establish a frequency for future performance tests for NO_x, SO_2, VOCs and CO. The test results from the NO_x performance test will be used to establish an emission factor that will be used in calculations to determine NOx emissions for use in comparison against the NO_x emissions cap. Recordkeeping for the amount of lime produced will also be performed for use in the NO_x emissions calculation.

The lime kiln is the primary control device for the NCG system (GP 340). If the lime kiln is down, then the gases from the NCG system would go to either Boiler Nos. 2 or 1, in that order. If both boilers are also down, then the NCGs would be vented, however, the venting time is limited (see requirement in GP 340).

EU 420 Boiler No. 1
The PM and opacity limits are the limits in the State rules for existing indirect heating equipment; there is no SO_2 limit because no fuel oil is burned in the boiler. The fuel is limited to natural gas; NCG can also be oxidized in the boiler.

There is a NO_x limit on the boiler set as a result of the PSD permit issued in 1989. The limit is primarily due to visibility concerns in the Class I area; this boiler is also included in the NO_x cap limit (GP 420). The limit for PM_{10} is included, since this was relied upon in modeling.

Monitoring consists of using a CEMS for NO_x emissions. Testing is not required for particulates or opacity since the limits will be met by burning natural gas, rather than some other type of fuel.

EU 430 Boiler No. 2
CE 430 (cyclone), CE 431 (ESP)

Emission limits for PM, PM_{10}, SO_2, CO, NO_x, and VOCs were established in the 1989 permit as a result of modeling and netting. The boiler was an existing emission unit when the PSD permit was done and there was no modification to the boiler, so it was not subject to BACT. The boiler is allowed to burn wood, natural gas, wastewater treatment sludge and NCGs. There is a limit on the amount of bark, wood refuse and sludge that can be burned, as well as a limit for sludge itself. The main purpose of these limits is to limit the amount of NO_x from the boiler. This boiler is included in the NO_x cap limit (GP 420).

The Permittee will have CEMS for measuring NO_x and will have a COMS. The COMS will also be used to indicate that the control equipment (ESP) is being operated properly. In addition to this monitoring, performance tests will be done within 180 days of completion of construction of the Boiler No. 2 project. The performance tests will be done to measure emissions of PM, PM_{10}, opacity, NO_x SO_2, CO, and VOCs. PM and PM_{10} will be measured every 5 years thereafter and a testing frequency plan will be submitted for the other pollutants.

The changes in this permit due to the PSD modification (boiler No. 2 project) are to increase the amount of wood and sludge that can be burned in the boiler. The SO_2 emission limit has been increased; the NO_x emission limit and other emission limits remain the same.

EU 440 Boiler No. 3; EU 450 Boiler No. 8; EU 460 Boiler No. 9
Each of these boilers is listed separately in the permit; they have identical requirements, as described below.

Limits for PM and PM_{10} are included in this permit; these limits reflect the conditions relied upon in the modeling for the 1989 permit. BACT limits in units of lb/mmBtu were established for CO and VOCs; CO also has a limit in units of lb/hr that was set as a result of modeling. The NO_x limit is a result of netting and modeling, but was established primarily to satisfy the visibility concerns for the Class I area. This boiler is included in the NO_x cap limit (GP 420). The fuel is limited to natural gas. NSPS subp. Db requires that the annual capacity factor be calculated for each calendar quarter.

The Permittee will use CEM to measure NO_x. A performance test will be performed within 365 days after permit issuance to measure VOCs and CO; a testing frequency plan will be submitted following the performance test. No other monitoring is required, due to the fact that natural gas is the only fuel allowed, and therefore the other limits will be met.

EU 530 No. 4 Paper Machine

The paper machine is subject to Minn. R. 7011.0610, the rule for Direct Heating Equipment. The fuel that is used in the dryer associated with the paper machine is limited to natural gas. Due to the nature of the emission unit, there is minimal amount of particulate emissions. Therefore, there is no need for periodic monitoring, other than proper maintenance of the paper machine.

EU 602 Wastewater Treatment Plant Cooling Tower

There is a limit on the amount of wastewater that is processed through the cooling tower. The limit is a BACT limit and was set to limit the amount of VOCs that are emitted from the cooling tower. The throughput is calculated on a rolling sum basis, and is calculated once per month. Performing calculations on a monthly rather than a daily basis is justified due to the variable nature of the cooling tower use.

EU 901 Thermal Oxidizer - Moonlight Rock Landfill

The Permittee is required to operate the landfill flare to control odorous emissions. The temperature must be maintained above the demonstrated control temperature, which currently is 1130 degrees Fahrenheit, and must be continuously recorded. There is also a requirement for a minimum residence time. These requirements and additional monitoring requirements are in place to ensure that the flare is operating properly.

EU 902 Paint Spray Booth
CE 902 (paper filter)

The paint spray booth is subject to the industrial process equipment rule, therefore there are permit limits for PM and opacity. There is a limit on the number of hours that the spray booth can be operated. This limit was established in a permit amendment in order to avoid classification as a major modification for PSD. Due to the variable and unpredictable use of the spray booth, the limitation is set as a 12-month rolling sum rather than a limit calculated daily. The filter for the spray booth shall be in place and maintained according to the manufacturer's specifications; this suffices as periodic monitoring.

6. Conclusion

Based on the information provided by Boise Cascade, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 07100002-001 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

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Attachment: Performance Testing Frequency Summary
CD-01 Forms

Performance Testing Frequency Summary

Emission Unit	PM/ PM_{10}	Opacity	NO_x	SO_2	TRS	VOC	CO	Other
Boiler No. 1 - Med. centrif. Cyclone			CEM (Visibility)					
Boiler No. 2 – Med. centrif. Cyclone + High eff. ESP. NSPS	every 5 years	COM	CEM, (Visibility)	once TFP		once TFP	Once TFP	
Boiler No. 3 – Flue gas recirc.			CEM, (BACT) (Visibility)			once TFP (BACT)	Once TFP BACT	
Boiler No. 8 - Flue gas recirc.			CEM (BACT) (Visibility)			once TFP (BACT)	once TFP BACT	
Boiler No. 9 - Flue gas recirc.			CEM (BACT) (Visibility)			once TFP (BACT)	once TFP BACT	
Recovery boiler - High eff. ESP.	PM/PM10 every 3 years	CEM	CEM (Visibility) (BACT)	Once TFP	CEM (BACT)	once every 5 years (BACT)	CEM BACT	
SDT - Venturi Scrubber	Once TFP		Once, to establish emission factor	once every 5 years	Once TFP (BACT)	once (3 years after permit issuance) TFP (BACT)		
Lime kiln - Med. centrif. coll. + Wet Scr.	Every 3 years		Once TFP (BACT)	Once TFP	CEM (BACT)	Once TFP (BACT)	once TFP BACT	
BSW					every 3 years (BACT)	Every 3 yrs (BACT)		
ClO2 generator - wet scrubber								Cl, ClO2, once, then TFP
Bleach plant - wet scrubber								Cl, ClO2, chloroform once, then TFP
Lime slaker- Wet scrubber	Once TFP							

Note: TFP = Testing frequency plan