

**AIR EMISSION PERMIT NO. 06100001- 002
IS ISSUED TO**

**Blandin Paper Company
&
Minnesota Power**

Blandin Paper Company
115 Southwest First Street,
Grand Rapids, Minnesota 55744-3662

Minnesota Power
Blandin Energy Center
502 Third Street Northwest
Grand Rapids, Minnesota 55744

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 17, 1995
Minor Amendment	October 25, 1999
Administrative Amendment	January 28, 2000
Administrative Amendment	February 1, 2000
Major Amendment & Administrative Amendment	February 22, 2000

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

Permit Type: Federal; Pt 70 / Limits to Avoid NSR

Issue Date: July 31, 2000

Expiration: June 14, 2004

All Title I Conditions do not expire.

Ann Foss

Ann M. Foss

Manager

North and South Major Facilities

For Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

SA:lk

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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.

FACILITY DESCRIPTION:

Blandin Paper Company (Blandin) & Minnesota Power operates a groundwood pulp and paper facility in Grand Rapids, Minnesota. Blandin operates the pulp and paper mill itself while Minnesota Power operates the on-site steam and electricity production facility.

In the Fall of 1999, Blandin Paper Company and Minnesota Power began negotiations for the purchase, by Minnesota Power, of certain steam and electric production facilities located at the Blandin site. Effective March 1, 2000, the two parties signed an Agreement resulting in Minnesota Power operating the purchased facilities, using Minnesota Power employees, and then selling steam and electricity back to Blandin.

The facility was initially built and began operation under the name Itasca Paper Company in 1902. In 1933 the company became Blandin Paper Company and in 1997 the plant was purchased by the UPM Kymmene Group based in Finland and the plant name was changed to Blandin Paper Company a Member of the UPM Kymmene Group. Blandin produces groundwood pulp and combines it with purchased kraft pulp to produce paper of advertising supplement, catalog, and magazine quality. Raw materials used to produce the paper include wood, clay, starch, and pigments.

The main contributing air emission sources at the plant consist of four boilers (2 natural gas-fired units and 2 wood/coal-fired units), a pressurized groundwood (PGW) mill, four paper machines, and four coater/dryers. Blandin has a potential-to-emit (PTE) of greater than 250 tons per year for all criteria pollutants except lead and thus is a major source under the federal Prevention of Significant Deterioration (PSD) program. The two wood/coal boilers are subject to New Source Performance Standard (NSPS) Subpart D and the two new, natural gas boilers scheduled to be installed in 2000 will be subject to NSPS Subpart Db. These two new natural gas boilers will replace two existing natural gas boilers. The facility is a major hazardous air pollutant (HAP) source and is thus subject to any applicable requirements within the National Emission Standards for Hazardous Air Pollutants (NESHAP) program.

The paper machines, PGW, coater/dryers, and the existing natural gas-fired boilers are all uncontrolled sources. The main power boilers (the wood/coal-fired units) are controlled by high efficiency electrostatic precipitators. The new natural gas boilers will be equipped with low-NO_x burners and flue gas re-circulation.

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr
 Permit Number: 06100001 - 002

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

Subject Item:	Total Facility
What to do	Why to do it
A. OPERATIONAL REQUIREMENTS	hdr
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
Comply with Fugitive Emission Control Plan (submitted August 12, 1999, and as amended): The Permittee shall follow the actions and record keeping specified in the control plan. The plan may be amended by the Permittee with the Agency's approval. If the Agency determines the Permittee is out of compliance with 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 Agency.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Comply with the O&M Plan (submitted October 12, 1999, and as amended): Follow the actions and record keeping specified in the O&M plan. The plan may be amended with the Agency's written approval.	Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation 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
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
B. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
C. MONITORING REQUIREMENTS	hdr
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)
D. RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
E. REPORTING REQUIREMENTS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
F. MISCELLANEOUS	hdr
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
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
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

<p>The Permittee may be required to submit a Risk Management Plan (RMP) under the federal rule, 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. The RMPs must be submitted to a centralized location as specified by US EPA. RMP submittal information may be obtained at http://www.epa.gov/swercepp or by calling 1-800-424-9346. These requirements must be complied with no later than the latest of the following dates: (1) June 21, 1999; (2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or (3) The date on which a regulated substance is first present above a threshold quantity in a process.</p>	<p>40 CFR pt. 68</p>
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TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Subject Item: GP 001 Paper Machines/Pressurized Groundwood Mills

- Associated Items:** EU 007 Paper Machine #3
 EU 008 Paper Machine #4
 EU 009 Paper Machine #5
 EU 010 Paper Machine #6
 EU 015 Pressurized Groundwood Mill
 SV 006
 SV 007
 SV 008
 SV 009
 SV 010
 SV 011
 SV 012
 SV 013
 SV 014
 SV 015
 SV 035

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. 7011.0735.	Minn. R. 7011.0710, subp. 1.A.
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity (this opacity limit applies to equipment installed prior to 1969 and thus applies to EU 007 and EU 008).	Minn. R. 7011.0710, subp. 1.B.
Opacity: less than or equal to 20 percent opacity (this opacity limit applies to equipment installed after 1969 and thus applies to EU 009 and EU 010).	Minn. R. 7011.0715, subp. 1.B.
Periodic Monitoring: the Permittee shall maintain proper maintenance of the paper machines (EU 007 through EU 010) and the pressurized groundwood mills (EU 015) so as to prevent excessive amounts of particulate matter from being emitted from the stack/vents listed above under Associated Items.	Minn. R. 7007.0800, subp. 4
Temperature: greater than or equal to 110 degrees F using 365-day Rolling Average for the process water exiting the combined heat recovery system for No.'s 3 & 4 paper machines (EU 007 and EU 008), the heat recovery system for No. 5 paper machine (EU 009), the heat recovery system for No. 6 paper machine (EU 010), and the heat recovery system for the PGW mill (EU 015).	Title I Condition: 40 CFR Section 52.21 to avoid classification as a major modification under PSD
Operating Hours: greater than or equal to 76 hours/day using 365-day Rolling Average for all four heat recovery units combined.	Title I Condition: 40 CFR Section 52.21 to avoid classification as a major modification
Monitoring and Record Keeping: the Permittee shall monitor and record daily the heat recovery system outlet water temperature and the hours of operation on all four heat recovery systems.	Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5
Annual Energy Audit and Report: the Permittee shall perform an annual audit of the four heat exchange systems to determine if the total steam conservation achieved is at least 34 MMBtu/hour. The testing shall be performed by an independent contractor during the third quarter of each year. If the audit does not show the 34 MMBtu/hour steam conservation, a permit amendment application shall be submitted on or before June 26, 2000.	Title I Condition: 40 CFR Section 52.21 to avoid classification as a major modification

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Subject Item: GP 002 Coaters/Dryers

- Associated Items:** EU 011 Coater/Dryer #3
 EU 012 Coater/Dryer #4
 EU 013 Coater/Dryer #5
 EU 014 Coater/Dryer #6
 SV 016
 SV 017
 SV 018
 SV 019
 SV 020
 SV 021
 SV 022
 SV 023
 SV 024
 SV 025
 SV 026
 SV 027
 SV 028
 SV 029
 SV 030
 SV 031
 SV 032
 SV 033
 SV 034

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. 7011.0735.	Minn. R. 7011.0710, subp. 1.A.
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity (this opacity limit applies to equipment installed prior to 1969 and thus applies to EU 011 and EU 012).	Minn. R. 7011.0710, subp. 1.B.
Opacity: less than or equal to 20 percent opacity (this opacity limit applies to equipment installed after 1969 and thus applies to EU 013 and EU 014).	Minn. R. 7011.0715, subp. 1.B.
Periodic Monitoring: the Permittee shall maintain proper maintenance of the coater/dryers (EU 011 through EU 014) so as to prevent excessive amounts of particulate matter from being emitted from the stack/vents listed above under Associated Items.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Subject Item: GP 003 Solid Fuel Power Boilers

- Associated Items:** CE 001 Electrostatic Precipitator - High Efficiency
 CE 002 Electrostatic Precipitator - High Efficiency
 CE 003 Centrifugal Collector - High Efficiency
 CE 004 Centrifugal Collector - High Efficiency
 EU 003 Boiler #5
 EU 004 Boiler #6
 MR 004 Boiler 5
 MR 005 Boiler 5
 MR 006 Boiler 5
 MR 007 Boiler 6
 MR 008 Boiler 6
 MR 009 Boiler 6
 SV 003

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.1 lbs/million Btu heat input (this limit applies individually to each emission unit listed above under Associated Items).	40 CFR Section 60.42(a)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity (this limit applies individually to each emission unit listed above under Associated Items).	40 CFR Section 60.42(a)(2)
Sulfur Dioxide: less than or equal to 1.2 lbs/million Btu heat input using 3-hour Rolling Average (this limit applies individually to each emission unit listed above under Associated Items).	40 CFR Section 60.43(a)(2)
Nitrogen Oxides: less than or equal to 0.7 lbs/million Btu heat input using 3-hour Rolling Average (this limit applies individually to each emission unit listed above under Associated Items).	40 CFR Section 60.44(a)(3)
Carbon Monoxide: less than or equal to 1300 parts per million on a dry, 8-hour discrete average basis (this limit applies individually to each emission unit listed above under Associated Items).	Minn. Stat. Section 116.07, subp. 4a and Minn. R. 7007.0800, subp. 2
B. OPERATIONAL REQUIREMENTS	hdr
Fuels Allowed: the Permittee shall only combust wood waste (includes creosote treated railroad ties, waste paper, and paper roll fiber cores), western subbituminous coal, and on-site generated waste (includes petroleum derived waste oil/sorbents and ignitable-only solvents) in EU 003.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months following Permit Issuance to measure particulate matter and carbon monoxide emissions from EU 003 and EU 004 operating simultaneously and venting through SV 003. The tests shall be conducted at an interval not to exceed 60 months between test dates.	Minn. R. 7017.2020, subp. 1
Performance Test Notification (written): due 30 days before each performance test.	Minn. R. 7017.2030, subp. 1
Performance Test Plan: due 30 days before each performance test	Minn. R. 7017.2030, subp. 2 and 3
Performance Test Pre-Test Meeting: due 7 days before each Performance Test	Minn. R. 7017.2030, subp. 4
Performance Test Report: due 45 days after each Performance Test	Minn. R. 7017.2035, subp. 1
Performance Test Report - Microfiche Copy: due 105 days after each Performance Test	Minn. R. 7017.2035, subp. 2
D. CONTINUOUS EMISSIONS MONITORING	hdr
Emissions Monitoring: The owner or operator shall use a COMS to measure opacity emissions from SV003.	Minn. R. 7017.1000, subp. 1; 40 CFR Section 60.45(a)
COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all COMS shall be in continuous operation.	Minn. R. 7007.0800, subp. 2; 40 CFR Section 60.13(e)
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. 7017.1000; 40 CFR Section 60.13(d)(2)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

COMS Calibration Error Audit: due before end of each half-year following COMS Certification Test Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart.	Minn. R. 7017.1210, subp. 3
COMS Calibration Error Audit Results Summary: due 30 days after end of each calendar half-year following COMS Calibration Error Audit.	Minn. R. 7017.1220
COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to 6 minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the 6 minute averaging period.	Minn. R. 7007.0800, subp. 2; 40 CFR Section 60.13(e)(1); 40 CFR Section 60.13(h)
Recordkeeping: The owner or operator must retain records of all COMS and 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
Emissions Monitoring: The owner or operator shall use NOx and SO2 CEMS to measure NOx and SO2 emissions from EU003 and EU 004.	Minn. R. 7017.1000, subp. 1
Cylinder Gas Audit: due before end of each calendar half-year following Permit Issuance. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar half-year following Cylinder Gas Audit (CGA)	Minn. R. 7017.1180, subp. 1
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following Permit Issuance for the monitors on EU 003 and EU 004. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS RATA.	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each quarter year in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr
 Permit Number: 06100001 - 002

Subject Item: GP 004 Natural Gas Boilers 7 and 8

Associated Items: EU 016 Boiler #7
 EU 017 Boiler #8

What to do	Why to do it
Fuel Usage: less than or equal to 3695.3 million cubic feet/year using 365-day Rolling Sum (combined fuel usage limit for Boilers 7 and 8) except that for the first 365 days of operation the limit is defined by the following equation, calculated every 30 days: $N \leq 400 + 9.028n$ Where "N" is the applicable fuel usage limit (millions of cubic feet) at day "n" since startup of either Boiler 7 or Boiler 8, whichever is first.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR
Recordkeeping: The Permittee shall maintain daily records of the amount of natural gas combusted in each boiler.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Subject Item: EU 001 Boiler #3

Associated Items: SV 001

What to do	Why to do it
Equipment Removal and/or Dismantlement: due 180 days after Initial Startup of Boiler #7 or Boiler #8, whichever is sooner and no later than 60 days after Boiler #7 or Boiler #8 achieves maximum steam production rate, whichever is sooner. Boiler #3 shall be removed from service (retired in place), defined as permanently disconnecting the fuel and steam lines. The retired boiler shall not be recommissioned unless the Permittee receives authorization within an appropriate air emission permit.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	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
Fuels Allowed: the Permittee shall only combust natural gas in EU 001.	Minn. R. 7007.0800, subp. 2
Recordkeeping: the Permittee shall retain records sufficient enough to demonstrate what fuel types were combusted in EU 001.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Subject Item: EU 002 Boiler #4**Associated Items: SV 002**

What to do	Why to do it
Equipment Removal and/or Dismantlement: due 180 days after Initial Startup of Boiler #7 or Boiler #8, whichever is sooner and no later than 60 days after Boiler #7 or Boiler #8 achieves maximum steam production rate, whichever is sooner. Boiler #4 shall be removed from service (retired in place), defined as permanently disconnecting the fuel and steam lines. The retired boiler shall not be recommissioned unless the Permittee receives authorization within an appropriate air emission permit.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	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
Fuels Allowed: the Permittee shall only combust natural gas in EU 002.	Minn. R. 7007.0800, subp. 2
Recordkeeping: the Permittee shall retain records sufficient enough to demonstrate what fuel types were combusted in EU 002.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

Subject Item: EU 016 Boiler #7

Associated Items: CE 006 Modified Furnace or Burner Design

CE 008 Flue Gas Recirculation

GP 004 Natural Gas Boilers 7 and 8

MR 010 Boiler 7

MR 011 Boiler 7

SV 036

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
<p>Nitrogen Oxides: less than or equal to 0.040 lbs/million Btu heat input using 365-day Rolling Average . A new 365-day rolling average shall be calculated each steam generating unit operating day as the average of all the hourly nitrogen oxides emission data for the preceding 365 calendar days. This standard applies at all times including periods of startup, shutdown and malfunction except that during the first 365 days after startup of EU016 the following applies:</p> <p>Beginning with the start of the performance test for nitrogen oxides required by 40 CFR Section 60.8, emissions data relating to the 0.040 lb/mmBtu emission limit for nitrogen oxides shall be calculated on a 30-day rolling average basis using the same data reduction procedure required for the limit in 40 CFR Section 60.44b(l). The 365-day rolling average procedure shall apply starting on the 365th day following startup of EU016.</p>	<p>Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.</p>
<p>Nitrogen Oxides: less than or equal to 0.20 lbs/million Btu heat input using 30-day Rolling Average . A new 30-day rolling average shall be calculated each steam generating unit operating day as the average of all the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days. This standard applies at all times including periods of startup, shutdown and malfunction.</p>	<p>Title I Condition: 40 CFR Section 60.44b(l); Minn. R. 7011.0565</p>
<p>Carbon Monoxide: less than or equal to 11.2 lbs/hour . This standard applies at all times including periods of startup, shutdown and malfunction.</p>	<p>Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.</p>
B. REPORTING & RECORDKEEPING REQUIREMENTS	hdr
<p>Recordkeeping: The permittee shall record and maintain records of the amounts of each fuel combusted during each operating day. In addition, the permittee shall maintain records of the operational data listed in 40 CFR 60.49b(g).</p>	<p>40 CFR Section 60.49b(d)&(g); Minn. R. 7011.0565</p>
C. PERFORMANCE TESTING REQUIREMENTS	hdr
<p>Performance Test: due 180 days after Initial Startup or within 60 days of achieving maximum operating rate, whichever is sooner, to determine Nitrogen Oxides emissions using the CEMS as described in 40 CFR 60.46b(e)(1).</p>	<p>Title I Condition: 40 CFR Section 60.8; 40 CFR Section 60.46b(e); Minn. R. 7011.0565; Minn. R. 7017.2020, subp. 1</p>
<p>Initial Performance Test: due 180 days after Initial Startup of EU016 to measure carbon monoxide emissions. The carbon monoxide test shall be conducted at the lowest achievable low load condition that is representative of normal operation.</p>	<p>Title I Condition: Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test Notification (Written): due 30 days before each performance test</p>	<p>Minn. R. 7017.2030, subp. 1</p>
<p>Performance Test Plan: due 30 days before each performance test</p>	<p>Minn. R. 7017.2030, subp. 2</p>
<p>Performance Test Pretest Meeting: due 7 days before each performance test</p>	<p>Minn. R. 7017.2030, subp. 4</p>
<p>Performance Test Report: due 45 days after each performance test</p>	<p>Minn. R. 7017.2035, subp. 1 & 2</p>
<p>Performance Test Report - Microfiche Copy: due 105 days after each performance test</p>	<p>Minn. R. 7017.2035, subp. 2</p>
D. CONTINUOUS EMISSION MONITORING REQUIREMENTS	hdr
<p>CEMS Installation: Install, calibrate, maintain and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.</p>	<p>Title I Condition: 40 CFR Section 60.48b(b); Minn. R. 7011.0565;Minn. R. 7017.1006</p>
<p>Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. Data is recorded during calibration checks, and zero and span adjustments. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. The 1-hour average emission rates shall be expressed in lb/mmBtu and the span value for the CEMS shall be 210 ppm.</p>	<p>40 CFR Section 60.48b(c)-(e); Minn. R. 7011.0565; 40 CFR Section 60.13(e); Minn. R. 7017.1090, subp. 1</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

When nitrogen oxides emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained using standby procedures to provide emissions data for a minimum of 75% of operating hours in each steam generating unit operating day, in at least 22 of 30 successive steam generating unit operating days.	40 CFR Section 60.48b(f); Minn. R. 7011.0565
CEM Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup of Boiler #7.	40 CFR Section 60.13(b); Minn. R. 7011.0565; Minn. R. 7017.1050, subp. 1
CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3
CEMS Certification Test Plan: due 30 days before CEMS Certification Test.	40 CFR Section 60.7(a)(5); Minn. R. 7017.1060, subp. 1 & 2
CEMS Certification Test Report: due 45 days after CEMS Certification Test.	Minn. R. 7017.1080, subp. 1, 2, & 4; 40CFR 60.13(c)(2)
CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test.	Minn. R. 7017.1080, subp. 3
CEMS QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR Part 60, Appendix F, Section 3
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F.	40 CFR part 60, Appendix F, Section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before each CEMS RATA.	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3; 40 CFR Part 60, Appendix F, Section 1
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the 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 Part 60, Appendix F, Section 4.1; 40 CFR Section 60.13(d)(1); Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test 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 Part 60, Appendix F, Section 5.1.2; Minn. R. 7017.1170, subp. 4
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following Cylinder Gas Audit (CGA).	Minn. R. 7017.1180, subp. 1; 40 CFR Part 60, Subp. Db; Minn. R. 7011.0565; 40 CFR Part 60, Appendix F, Section 1; Minn. R. 7017.1180, 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 Section 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 Section 60.7(b)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr
 Permit Number: 06100001 - 002

Subject Item: EU 017 Boiler #8

Associated Items: CE 007 Modified Furnace or Burner Design
 CE 009 Flue Gas Recirculation
 GP 004 Natural Gas Boilers 7 and 8
 MR 012 Boiler 8
 MR 013 Boiler 8
 SV 037

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
<p>Nitrogen Oxides: less than or equal to 0.040 lbs/million Btu heat input using 365-day Rolling Average . A new 365-day rolling average shall be calculated each steam generating unit operating day as the average of all the hourly nitrogen oxides emission data for the preceding 365 calendar days. This standard applies at all times including periods of startup, shutdown and malfunction except that during the first 365 days after startup of EU017 the following applies:</p> <p>Beginning with the start of the performance test for nitrogen oxides required by 40 CFR Section 60.8, emissions data relating to the 0.040 lb/mmBtu emission limit for nitrogen oxides shall be calculated on a 30-day rolling average basis using the same data reduction procedure required for the limit in 40 CFR Section 60.44b(l). The 365-day rolling average procedure shall apply starting on the 365th day following startup of EU017.</p>	<p>Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.</p>
<p>Nitrogen Oxides: less than or equal to 0.20 lbs/million Btu heat input using 30-day Rolling Average . A new 30-day rolling average shall be calculated each steam generating unit operating day as the average of all the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days. This standard applies at all times including periods of startup, shutdown and malfunction.</p>	<p>Title I Condition: 40 CFR Section 60.44b(l); Minn. R. 7011.0565.</p>
<p>Carbon Monoxide: less than or equal to 11.2 lbs/hour . This standard applies at all times including periods of startup, shutdown and malfunction.</p>	<p>Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.</p>
B. REPORTING & RECORDKEEPING REQUIREMENTS	hdr
<p>Recordkeeping: The permittee shall record and maintain records of the amounts of each fuel combusted during each operating day. In addition, the permittee shall maintain records of the operational data listed in 40 CFR 60.49b(g).</p>	<p>40 CFR Section 60.49b(d)&(g); Minn. R. 7011.0565.</p>
C. PERFORMANCE TESTING REQUIREMENTS	hdr
<p>Performance Test: due 180 days after Initial Startup or within 60 days of achieving maximum operating rate, whichever is sooner, to determine Nitrogen Oxides emissions using the CEMS as described in 40 CFR 60.46b(e)(1).</p>	<p>Title I Condition: 40 CFR Section 60.8; 40 CFR Section 60.46b(e)); Minn. R. 7011.0565; Minn. R. 7017.2020, subp. 1</p>
<p>Initial Performance Test: due 180 days after Initial Startup of EU016 to measure carbon monoxide emissions. The carbon monoxide test shall be conducted at the lowest achievable low load condition that is representative of normal operation.</p>	<p>Title I Condition: Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test Notification (Written): due 30 days before each performance test</p>	<p>Minn. R. 7017.2030, subp. 1</p>
<p>Performance Test Plan: due 30 days before each performance test</p>	<p>Minn. R. 7017.2030, subp. 2</p>
<p>Performance Test Pretest Meeting: due 7 days before each performance test</p>	<p>Minn. R. 7017.2030, subp. 4</p>
<p>Performance Test Report: due 45 days after each performance test</p>	<p>Minn. R. 7017.2035, subp. 1 & 2</p>
<p>Performance Test Report - Microfiche Copy: due 105 days after each performance test</p>	<p>Minn. R. 7017.2035, subp. 2</p>
D. CONTINUOUS EMISSION MONITORING REQUIREMENTS	hdr
<p>CEMS Installation: Install, calibrate, maintain and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.</p>	<p>Title I Condition: 40 CFR Section 60.48b(b)); Minn. R. 7011.0565; Minn. R. 7017.1006</p>
<p>Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. Data is recorded during calibration checks, and zero and span adjustments. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. The 1-hour average emission rates shall be expressed in lb/mmBtu and the span value for the CEMS shall be 210 ppm.</p>	<p>40 CFR Section 60.48b(c)-(e); Minn. R. 7011.0565; 40 CFR Section 60.13(e); Minn. R. 7017.1090, subp. 1</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr
 Permit Number: 06100001 - 002

When nitrogen oxides emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained using standby procedures to provide emissions data for a minimum of 75% of operating hours in each steam generating unit operating day, in at least 22 of 30 successive steam generating unit operating days.	40 CFR Section 60.48b(f)); Minn. R. 7011.0565
CEM Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup of Boiler #7.	40 CFR Section 60.13(b)); Minn. R. 7011.0565; Minn. R. 7017.1050, subp. 1
CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3
CEMS Certification Test Plan: due 30 days before CEMS Certification Test.	40 CFR Section 60.7(a)(5); Minn. R. 7017.1060, subp. 1 & 2
CEMS Certification Test Report: due 45 days after CEMS Certification Test.	Minn. R. 7017.1080, subp. 1, 2, & 4; 40CFR Section 60.13(c)(2)
CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test.	Minn. R. 7017.1080, subp. 3
CEMS QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40CFR 60, App. F, section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR Part 60, Appendix F, Section 3
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F.	40 CFR Part 60, Appendix F, Section 5.1.1; Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before each CEMS RATA.	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3; 40 CFR Part 60, Appendix F, Section 1
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the 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 Part 60, Appendix F, Section 4.1; 40 CFR Section 60.13(d)(1); Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test 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 Part 60, Appendix F, Section 5.1.2; Minn. R. 7017.1170, subp. 4
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following Cylinder Gas Audit (CGA).	Minn. R. 7017.1180, subp. 1; 40 CFR Part 60, Subp. Db); Minn. R. 7011.0565; 40 CFR Part 60, Appendix F, Section 1; Minn. R. 7017.1180, 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 Section 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 Section 60.7(b)

TABLE B: SUBMITTALS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr
Permit Number: 06100001 - 002

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

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

Send any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

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

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after 06/14/1999 (1,096 days after issuance of Title V permit) for PM-10, SO2 and NOx. This protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, App. W. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after 06/14/1999 (1,462 days after issuance of Title V permit) for PM-10, SO2, and NOx. To be submitted after the MPCA has reviewed and approved the modeling protocol. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU016, EU017
Notification of the Date Construction Began	due 30 days after Start Of Construction	EU016, EU017
Notification	due 15 days after achieving maximum capacity of Boiler #7.	EU016
Notification	due 15 days after achieving maximum capacity of Boiler #8.	EU017
Notification	due 15 days after Equipment Removal and/or Dismantlement of Boiler #3.	EU001
Notification	due 15 days after Equipment Removal and/or Dismantlement of Boiler #4.	EU002
Notification	due 60 days before Initial Startup of the Monitor. 60 days before installing the continuous emissions monitoring system for NOx, submit a notification that shall include plans and drawings of the system.	EU016, EU017
Testing Frequency Plan	due 90 days after Initial Performance Test for carbon monoxide. Testing frequency can be every 1, 3 or 5 years depending on the proximity to the emission limit and as defined in the current MPCA guidance document.	EU016, EU017

TABLE B: RECURRENT SUBMITTALS

07/31/00

Facility Name: Blandin Paper Co/MP-Blandin Energy Ctr

Permit Number: 06100001 - 002

What to send	When to send	Portion of Facility Affected
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). The EER must contain all of the information requested in 40 CFR60.7(c). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	EU016
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 CFR60.7(c). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	EU017
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Permit Issuance for the monitors on EU 003 and EU 004 (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.	GP003
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
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
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

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 06100001-002

Major (Non-Major for PSD) Amendment

This Technical Support Document (TSD) is for all the interested parties of the permit. The purpose of the TSD 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

Applicant and Stationary Source Location:

Owner & Operator Address and Phone No. (Co-permittee)	Owner & Operator Address and Phone No. (Co-permittee)	Facility Address (SIC Code: 2611/2621)
Blandin Paper Company – Member, UPM Kymmene Group 115 1 st Street Southwest Grand Rapids, MN 55744	Minnesota Power Blandin Energy Center 502 3 rd Street NW Grand Rapids, MN 55744	Blandin Paper Company/ Minnesota Power-Blandin Energy Center 115 1 st Street Southwest Grand Rapids, MN 55744 Itasca County
Facility Contact: Curt Firman - (218) 327-6306	Permit Contact: Brandon Krogh – 30 West Superior Street Duluth, MN 55802-2093 (218) 723-3954	Facility Contact: Curt Firman - (218) 327-6306

Description of the Facility:

Blandin Paper Company (Blandin) and Minnesota Power operate a groundwood pulp and paper facility in Grand Rapids, which is described in the TSD for the Title V permit issued on June 14, 1999. Blandin operates the pulp and paper mill while Minnesota Power operates the steam and electricity production facility.

In the Fall of 1999, Blandin Paper Company and Minnesota Power began negotiations for the purchase, by Minnesota Power, of certain steam and electric production facilities located at the Blandin site. Effective March 1, 2000, the two parties signed an Agreement resulting in Minnesota Power operating the purchased facilities, using Minnesota Power employees, and then selling steam and electricity back to Blandin. Specifically, Minnesota Power purchased Boilers 5 and 6 including their associated fuel handling facilities, the two steam turbine-generators, and Blandin’s hydroelectric facility. In addition, the Agreement calls for Minnesota Power to design, purchase, install and operate two new gas-fired package boilers (Boilers 7 and 8). Once the two new boilers become operational, Boilers 3 and 4, which Blandin has retained ownership of, will be permanently shut down.

Blandin and Minnesota Power are considered co-permittees for this stationary source since the boilers act as a support facility for Blandin's mill operations.

The Blandin/Minnesota Power site is an existing major source under federal Prevention of Significant Deterioration (PSD) requirements. Therefore the proposed installation of new boilers must be considered with respect to the PSD significant emission rates. Since this permit amendment is being pursued primarily by Minnesota Power staff, Minnesota Power will be referred to as the applicant throughout most of this TSD. This does not impact the co-permittee status at the facility.

Description of the Modification:

Minnesota Power proposes to construct and operate two new natural gas fired boilers (to be numbered Boiler 7 and Boiler 8) at the Blandin site to replace existing Boiler Nos. 3 and 4, which will be retired in place by Blandin. This permit amendment is major in order to establish federally enforceable limitations on operations, to require retirement of two existing boilers and to reflect the conditions of the netting analysis. Minnesota Power conducted a netting analysis for Nitrogen Oxides (NOx) and demonstrated that the modification is not major under PSD requirements.

Existing Boiler Nos. 5 and 6 are in service most of the time and supply the majority of mill steam demand. This will not change after the modification. No electrical power produced at the site will enter the larger electrical power supply 'grid', although Minnesota Power may choose to operate the steam turbine connected to existing Boiler Nos. 3 and 4 (which will become the steam turbine for Boilers 7 and 8) at higher output levels in order to offset electrical power from off-site sources.

Existing natural gas fired Boiler Nos. 3 and 4, with listed startup dates in 1954 and 1969 respectively (ref: Title V application), generally have operated with one in service and one in standby mode and the average year round operation has been approximately 25 percent of capacity for both boilers combined. The Title V application lists the capacities as 238 and 348 mmBtu/hr heat input respectively (586 mmBtu/hr total). New Boilers 7 and 8 are proposed with capacities of 280.3 mmBtu/hr each (560.6 mmBtu/hr total). Since the existing boilers already have considerable excess steam capacity and there are no additional steam requirements at the mill at this time, debottlenecking is not a concern in the PSD netting analysis. Additionally, the new Boilers will be connected to existing Turbine No. 6, which will maintain the electrical generating capacity at 16 megawatts. The new boilers, unlike the older units, will be physically located in the same part of the plant as Boilers 5 and 6.

Minnesota Power has proposed that the new boilers will be equipped with low NOx burners and flue gas re-circulation. The new natural gas fired boilers will be subject to federal New Source Performance Standards (NSPS), subpart Db and will be equipped with a continuous emissions monitoring system (CEMS) to monitor NOx emissions. An emission limit more stringent than the NSPS limit for NOx is proposed, to maintain limited emissions to below the significance level after netting. A carbon monoxide (CO) limit is proposed at a level equivalent to about half the AP-42 emission factor and performance (stack) testing will be the primary periodic monitoring method for that pollutant. At the proposed limited level, netting was not necessary for CO.

Minnesota Power has proposed an operating limit of 76 percent of total fuel combustion capacity for the new boilers in order to limit particulate matter smaller than 10 microns (PM₁₀) emissions to below the PSD significance threshold.

The draft permit establishes a 365-day rolling average and 365-day rolling sum based limits for NOx emissions and fuel usage respectively. These averaging times reflect the status of the boilers as secondary units with unpredictable operating schedules. More frequent startup and shutdown occurrences are anticipated which, combined with low usage, creates a need to average emissions over a longer period. However, the draft permit does specify that the emission limits apply during periods of startup, shutdown and malfunction and it does require more frequent compliance demonstration during the first 365 days of operation.

When the proposed operating and emission limits are taken into account, only the NOx potential to emit (PTE) exceeds the PSD significance threshold and therefore only NOx was considered in the netting analysis. Emissions increases (tons per year) resulting from the modification are given in the following table:

Pollutant	Max. Controlled, Unlimited Emissions	Max. Controlled, Limited Emissions	PSD Significance Level	Net Emissions Increase
PM	18.5 tpy	14.0 tpy	25 tpy	NA
PM ₁₀	18.5 tpy	14.0 tpy	15 tpy	NA
SO ₂	1.46 tpy	1.1 tpy	40 tpy	NA
NO _x	98.5 tpy	74.8 tpy	40 tpy	30.7 tpy *
VOC	13.4 tpy	10.2 tpy	40 tpy	NA
CO	98.2 tpy	98.2 tpy	100 tpy	NA

*Based on 1999/1997 (see discussion under Section 3, Netting Analysis)

PTE calculations for hazardous air pollutants (HAPS) were included in the permit modification application. The total PTE for all HAPS combined for both boilers was approximately 3.5 tons per year (tpy), which is below the threshold of 10 tpy for and single HAP and 25 tpy for total HAPS. Therefore, this modification is not subject to review under Section 112(g) of the Clean Air Act Amendments of 1990.

Other Changes Within This Permit Action:

This permit modification also incorporates the administrative amendment request to change to co-permittee status as detailed in the Major Amendment modification. An earlier administrative amendment request, dated January 28, 2000, to extend the deadline for submittal of the first semiannual deviation report and annual compliance certification under the Title V permit, is not incorporated here since the subject deadlines have passed and the submittals were received on or before the extended deadline late. The administrative amendment, dated February 1, 2000, requesting an extension to the permit amendment deadline related to the Annual Energy Audit and Report requirement has been included in this draft permit, extending the deadline from February 28, 2000 to June 26, 2000.

The MPCA has made some formatting and administrative changes to the permit as follows:

- The requirements that apply to the Total Facility section of Table A have been re-ordered and grouped under headers to make the requirements easier to find.
- The requirements in Table B to submit a Fugitive Emission Control Plan and an O&M Plan have been removed since these plans have now been submitted. References to the actual submittal dates are added to the appropriate compliance requirements in Table A.
- Certain submittals and notifications for continuous monitoring and performance testing have been moved from Table B to Table A so that they are grouped with the related required actions.
- Computer dispersion modeling submittal requirements in Table B have been updated to reflect the actual date of issuance of the Title V permit.
- Minor typographical and grammatical errors, where found, have been corrected.

Facility Emissions Summary:

Table 1. Emissions Associated With the Modification

Pollutant	Potential to Emit from the mod. (lb/hr)	Potential to Emit from the mod. (TPY)	*Emission Increases Authorized with this Permit (TPY)	**Other contemporaneous emission increases (TPY)	**Other contemporaneous emission decreases (TPY)	Net Emission Change (TPY)	NSR/ Threshold Level (TPY)	NSR/ MACT Review Required (Yes or No)
PM	3.2	14.0	14.0			N/A	25	No
PM ₁₀	3.2	14.0	14.0			N/A	15	No
SO ₂	0.25	1.1	1.1			N/A	40	No
NO _x	17.1	74.8	30.7	77.8	121.9	30.7	40	No
VOC	2.3	10.2	10.2			N/A	40	No
CO	22.4	98.2	98.2			N/A	100	No
Lead	0.00021	0.00092	0.00092			N/A	0.06	No

*Emission increases allowed with the permit action include additions and subtractions associated with netting. If netting is done, this will be different from the potential to emit from the modification.

**Other emission changes during the contemporaneous period as defined by 40 CFR 52.21, 40 CFR 52.24 or 40 CFR 51

Table 2. Permit Action Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)		NO _x , CO, PM ₁₀	PM, SO ₂ , VOC
NAAR (list pollutant) NOT APPLICABLE			

* 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) Recent Permitting History

Some discussion of other permit related issues at the Blandin facility is warranted prior to presenting the netting analysis. A total facility permit (636A-84-OT-1) was issued in 1984 and was amended nine times. In November 1991, total facility permit 636A-91-OT-2 was issued, incorporating the original permit as amended. This permit was itself amended five times before the Title V Air Emission Permit No. 06100001-001, was issued in June 1999.

Amendment No. 6 (issued April 1988, allowing installation of the new No. 6 Paper Machine and new PGW mill) to the 1984 air emission permit is currently under review by the MPCA but this amendment was not within the applicable contemporaneous period and the review does not impact the current permit action.

In February 1996 Blandin applied for a minor permit amendment to modify its No. 3 and No. 4 paper lines, debottlenecking by increasing production of coated paper and the amount of coating applied. A permit was not issued but the changes were made at the facility under the minor amendment provisions in Minn. R. ch. 7007. These changes yielded a creditable emissions increase of 25.4 tons per year of NO_x.

The mill-wide steam reduction project which constituted the basis for netting of emissions for amendment No. 3 (issued August 1997, for modifications to the No. 6 Paper Machine) to the 1991 permit is currently under review since the project did not provide the required energy reduction in the manner required by the permit. Blandin has proposed, since submitting its second energy audit in November 1999, to eliminate this monitoring and conduct the necessary PSD analysis to remove reliance on this creditable decrease. That credit resulted in the modification not being major for SO₂. It did not affect the PSD status of any other pollutant. For this application, Blandin/Minnesota Power has assumed zero creditable decrease from the steam reduction project. The change in status of the past modification for SO₂ could not change the results of this analysis as projected SO₂ emissions are very small.

The emissions increase associated with the gap former and steam box additions to Paper Machine No. 6 that were also authorized by amendment No. 3, have been retained as creditable increases of NO_x emissions to the extent of 38.5 tons per year.

The facility's Title V operating permit was issued June 14, 1999.

In October 1999 Blandin submitted a permit amendment to modify its No. 6 Paper Machine, removing one press from the machine and modifying another. Also existing gas-fired infrared (IR) dryers associated with the No. 6 Coater were proposed to be replaced with higher capacity units and electric IR dryer capacity was proposed to be added. During its review of the application, the MPCA agreed that 1998 was not a representative operating year due to the Gap Former modification. Updated emissions calculations, submitted December 1999, based on MPCA comment and review, show a creditable NOx increase of 13.9 tons per year.

3) Netting Analysis

The potential increase in emissions attributable to installation of the two new, natural gas-fired boilers are as tabulated below. The calculations take into account the operating capacity limit on the boilers and the proposed NOx and CO emission limits. Since NOx is the only pollutant above the significance level, it is the only pollutant subject to netting.

Pollutant	Maximum Controlled, Limited Emissions	PSD Significance Level
PM	14.0 tpy	25 tpy
PM ₁₀	14.0 tpy	15 tpy
SO ₂	1.1 tpy	40 tpy
NO _x	74.8 tpy	40 tpy
VOC	10.2 tpy	40 tpy
CO	98.2 tpy	100 tpy

Minnesota Power plans to begin construction immediately upon completion of the pre-construction review requirements of the NSR program and receipt of authorization from the MPCA under Minn. R. 7007.0750, subp. 7(A)(2). Assuming a start date of June 1, 2000, the five-year contemporaneous period for the netting analysis is June 1, 1995, to June 1, 2000. The changes yielding creditable NOx emissions increases or decreases with this period are:

- a) January 1996: No. 4a Coater minor modification, creditable increase of 25.4 tpy of NOx.
- b) August 1997: Gap Former/Steam Box major modification, creditable increase of 38.5 tpy of NOx.
- c) October 25, 1999 (application date): Shoe Press & Coater/No. 6 Paper Machine minor modification, creditable increase of 13.9 tpy of NOx.
- d) Past actual emissions from Boiler Nos. 3 and 4, creditable decrease of 121.9 tpy of NOx for the two year period 1999/1997.

As explained in Section 2 of this TSD, the MPCA has agreed that the year 1998 is not a representative year for PSD analysis due to unusual downtime associated with the Gap Former modification. Therefore the assumption that 1998 was also not a representative steam generating year has been applied to this analysis. For the purpose of quantifying past actual emissions, Page A.39 of the Draft (1990) New Source Review Workshop Manual states that a "different two-year period" may be used in cases where the two years immediately preceding the modification are not representative.

Since it does not state that the alternate period must be two consecutive years, the MPCA has used 1999 and 1997 as the alternate period. Minnesota Power calculated the net increase using both 1999/97 and 1997/96 as alternate periods and found that 1999/97 gives the more conservative netting result (i.e. the higher net increase in emissions) but both are below the PSD significance level.

The netting analysis is summarized as follows:

Pollutant	Future Potential Emissions	Past Actual Emissions 1999/97	4a Coater Mod.	Gap Former Mod.	Shoe Press, etc. Mod.	Net Change	PSD Sig. Level
NOx	+74.8 tpy	-121.9 tpy	+25.4 tpy	+38.5 tpy	+13.9 tpy	+30.7 tpy	40 tpy

The net change in NOx emissions is less than the PSD significance level and therefore the amendment is non-major under PSD regulations. Note that the net change calculated by using the period 1997/96 for calculation of past actual emissions is +8.7 tpy based on past actual emissions of 142.9 tpy for Boilers 3 and 4.

4) Regulatory and/or Statutory Basis

Regulatory Overview of Modification:

Unit ID Number	Applicable Regulations	Comments
EU016 and EU017	40 CFR pt. 60, subp. Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units Includes requirements for CEMS installation and other testing, monitoring and reporting requirements.
EU016 and EU017	40 CFR § 52.21	Facility specific emission limits for NOx and CO to restrict PTE in order to remain below PSD significance level.
EU001 and EU002	40 CFR § 52.21	Federally enforceable requirement to retire Boiler 3 and Boiler 4 in order to take credit for emissions decrease.
GP004	40 CFR § 52.21	Limit on combined operation of the boilers to restrict PTE in order to remain below PSD significance level.
EU016 and EU017	Minn. R. ch. 7017	CEMS and performance testing to satisfy periodic monitoring requirements and to verify emissions factors used in netting.

5) **Technical Information**

In addition to the permit, the following information is appended to this TSD for informational purposes:

- Emission calculation form EC-02
- Emissions summary form MOD-11
- Form MGI-01
- Form MOD-03

6) **Public Notice**

No comments on the draft permit were received during the public comment period. After the public comment period, the MPCA made minor changes to the permit as follows:

- Added the dates of the three administrative amendments described in the TSD to the list of amendments on the cover page.
- Changed the 'Permit Type' descriptor on the cover page from 'Syn Min PSD/NSR' to 'Pt 70/Limits to Avoid NSR', which more clearly reflects the disposition of the facility as an existing major source under Title V which is undergoing a modification using federally enforceable limits to stay below the threshold for New Source Review.
- Under the CEMS Continuous Operation requirement for EU016 and EU017, specified that the CEMS span value shall be 210 ppm, as proposed in a letter from Minnesota Power dated June 1, 2000. At the start of the public notice period this value was not known so the permit was drafted to require a span value of 500 ppm or less and required the permittee to propose a value prior to CEMS installation. The proposed span value is sufficient for monitoring at the levels of both the 0.20 and 0.040 lb/mmBtu limits. Since NSPS subp. Db requires a span value of 500 ppm, the proposed lower span value has been approved pursuant to 40 CFR Section 60.13(i).

7) **Conclusion**

Based on the information provided by Minnesota Power and Blandin, the MPCA has reasonable assurance that the proposed modification and the subsequent operation of the emission facility, as described in air emission permit 06100001-002, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Stuart Arkley, Bob Beresford
Peer review by: Trent Wickman

Attachments: Specified in Section 5