

**AIR EMISSION PERMIT NO. 06100001- 006**

**IS ISSUED TO**

**Blandin Paper Co.**

Rapids Energy Center/Minnesota Power  
Blandin Paper/Rapids Energy Center  
115 Southwest 1st Street  
Grand Rapids, Itasca County, MN 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 | Issuance Date  | Action Number |
|---------------------------------|------------------|----------------|---------------|
| Total Facility Operating Permit | 04/17/1995       | June 14, 1999  | 001           |
| Major Amendment                 | 02/22/2000       | July 31, 2000  | 002           |
| Major Amendment                 | 04/23/2001       | March 13, 2002 | 003           |
| Administrative Amendment        | 06/10/2003       | June 10, 2003  | 004           |
| Major Amendment                 | 01/21/2004       | June 14, 2004  | 005           |
| Major Amendment                 | 01/28/2004       | See below      | 006           |

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

**Permit Type:** Federal; Pt 70/NSR Authorization

**Issue Date:** February 7, 2005

**Expiration:** June 14, 2004

Title I Conditions do not expire.

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Richard J. Sandberg  
Air Quality Permits Section Manager  
Industrial Division

for Sheryl A. Corrigan  
Commissioner  
Minnesota Pollution Control Agency

## **TABLE OF CONTENTS**

**Notice to the Permittee**

**Permit Shield**

**Facility Description**

**Table A: Limits and Other Requirements**

**Table B: Submittals**

**Table C: Not used in this permit**

**Appendices: Attached and Referenced in Table A**

**NOTICE TO THE PERMITTEE:**

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

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

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

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

**PERMIT SHIELD:**

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

## **FACILITY DESCRIPTION:**

Blandin Paper Company (Blandin) operates a groundwood pulp and papermill in Grand Rapids, Minnesota. Blandin 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 consisted 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 New Source Performance Standard (NSPS) units (Subpart D) and the facility is a major hazardous air pollutant (HAP) source and is thus applicable to the National Emission Standards for Hazardous Air Pollutants (NESHAP) program and is thus potentially subject to a Maximum Achievable Control Technology (MACT) standard when it comes into effect. For existing boilers, the effective date is September 13, 2007.

In terms of pollution control equipment, the paper machines, PGW, coater/dryers, and the natural gas-fired only boilers were all uncontrolled sources. The main power boilers (the wood/coal-fired units) are controlled by high efficiency electrostatic precipitators.

### **Action 002:**

Minnesota Power proposed 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 were retired in place by Blandin. This permit amendment was 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 (NO<sub>x</sub>) 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.

Minnesota Power has proposed that the new boilers be equipped with low NO<sub>x</sub> burners and flue gas recirculation. The new natural gas fired boilers are subject to federal New Source Performance Standards (NSPS), subpart Db and are equipped with a continuous emissions monitoring system (CEMS) to

monitor NO<sub>x</sub> emissions. An emission limit more stringent than the NSPS limit for NO<sub>x</sub> was proposed, to maintain limited emissions to below the significance level after netting. A carbon monoxide (CO) limit was 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 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 (PM<sub>10</sub>) emissions to below the PSD significance threshold.

The draft permit established a 365-day rolling average and 365-day rolling sum based limits for NO<sub>x</sub> 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 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 NO<sub>x</sub> potential to emit (PTE) exceeds the PSD significance threshold and therefore only NO<sub>x</sub> was considered in the netting analysis.

**Action 003:**

This amendment concerned a “backwards” federal Prevention of Significant Deterioration (PSD) analysis for the PGW mill and #6 paper machine at the facility.

On April 6, 1988, Blandin received an air emissions permit amendment (Amendment No. 6 to Air Emissions Permit No. 636A-84-OT-1) which authorized modification of the facility, including the installation of a new PGW mill, and #6 paper machine and coater. The permit was issued as a non-major modification under PSD for volatile organic compound (VOC) emissions.

PSD review was conducted for VOC emissions from these emission units. The results of the BACT analysis was the application of a regenerative thermal oxidizer (RTO) to the PGW mill, and no control for the #6 paper machine or the #6 coater.

An unrelated item that was changed in the permit is updating the modeling requirements that were implemented in the original Title V permit. The Minnesota Pollution Control Agency (MPCA) policy on the subject has recently changed.

**Action 004:**

This permit action was for a 120 day extension to the deadline for submittal of the computer dispersion modeling results.

**Action 005:**

This permit action was an MPCA-initiated major amendment under Minn. R. 7007.1600, subp. 1(D). It changed the minimum allowable temperature for EU015 (afterburner) from 1600 degrees Fahrenheit to 1450 degrees Fahrenheit as a result of performance testing.

**Action 006:**

This permit action incorporates two applications. On January 29, 2004, Blandin Paper Company/Rapids Energy Center (Blandin) submitted a permit application for a major amendment to its Part 70 permit. That application asked for the removal of Title I Conditions set for Paper Machines 3 and 4. The request was made because those paper machines were decommissioned in December 2002. Additionally, the application asked that the pressurized groundwood mill (PGW) be designated as a Clean Unit as is provided for under 40 CFR 52.21(x).

On August 2, 2004, Blandin submitted an application for a major amendment to replace the burners in the gas-fired boilers 7 and 8. The reason for the burner change is that the existing burners do not allow for sufficient turn down, and hence often cause the facility to use more natural gas that would otherwise be necessary. In addition, the company plans to install 10 mmBtu pilot burners in each boiler to reduce the time for boiler startup. Ultimately, the company expects to realize a savings in natural gas usage from this as well. The heat input of the boilers is still 280 mmBtu per hour each plus an additional 10 mmBtu per hour due to the pilot burners.

The MPCA has determined that the modifications proposed in the August 2, 2004, permit application qualify as an insignificant activity, not as a modification requiring a major amendment. Calculations showing the potential emission increase of the new burners, and calculations of future actual emissions minus past actual are attached to the technical support document. Because the modifications qualify as an insignificant modification, the company is allowed by Minnesota Rules to proceed without with the modification without issuance of a permit.

Other changes were made to the permit other than those applied for. They were:

1. Requirements for submittals that have already been submitted have been deleted;
2. Stack emissions testing frequency requirements have been changed based on the most recent stack test results;
3. The required operating temperature for the RTO has been reduced to 1450 degrees F based on stack emission test results; and
4. Submittals required pertaining to stack emission testing (notifications, test reports, etc.) have been specified at the total facility level, rather than each individual emission unit. Please note that these are in Table A under the Total Facility requirements, rather than Table B.

All of the above changes are consistent with MPCA policy.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**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  |
| Performance Test Notifications and Submittals:<br><br>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.<br><br>Performance Test Notification (written): due 30 days before each Performance Test<br>Performance Test Plan: due 30 days before each Performance Test<br>Performance Test Pre-test Meeting: due 7 days before each Performance Test<br>Performance Test Report: due 45 days after each Performance Test<br>Performance Test Report - Microfiche Copy: due 105 days after each Performance Test<br><br>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018. | Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2 |
| 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, unless otherwise specified in Tables A and/or B.   | 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)  |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

|   |   |
|---|---|
| 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)                |
| <b>D. RECORDKEEPING REQUIREMENTS</b>  | 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)               |
| 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)                |
| <b>E. REPORTING REQUIREMENTS</b>  | 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.<br><br>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.<br><br>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:<br>1. the cause of the deviation;<br>2. the exact dates of the period of the deviation, if the deviation has been corrected;<br>3. whether or not the deviation has been corrected;<br>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and<br>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.   | Minn. R. 7019.1000, subp. 1                   |
| <b>F. MISCELLANEOUS</b>   | 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                            |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

|  |  |
|--|--|
| <p>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.</p>  | <p>Minn. R. 7007.0800, subp. 9(A)</p>                |
| <p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>   | <p>Minn. R. 7002.0005 through Minn. R. 7002.0095</p> |
| <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 <a href="http://www.epa.gov/swercepp">http://www.epa.gov/swercepp</a> 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>                                 |
| <p>BOILER MACT STANDARD</p>  | <p>hdr</p>   |
| <p>Comply with Subp. DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters as applicable, by September 13, 2007 for the existing boilers.</p>  | <p>40 CFR DDDDD</p>                                  |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**Subject Item: GP 001 Paper Machines/Pressurized Groundwood Mills**

- Associated Items:** EU 009 Paper Machine #5  
 EU 010 Paper Machine #6  
 EU 015 Pressurized Groundwood Mill  
 SV 010  
 SV 011  
 SV 012  
 SV 013 PM6 No. 1 Dryer Ex (44-0713)  
 SV 014 PM6 No. 2 Dryer Ex (44-0714)  
 SV 015 PM6 No. 3 Dryer Ex (44-0715)  
 SV 035 PGW Main Stack (29-0707)  
 SV 038 PGW Disc Thickener (29-0700)  
 SV 039 PGW Bleach Press Ex (29-0703)  
 SV 040 PGW General Chest Ex (29-0708)  
 SV 041 PGW Grinder Air Lock  
 SV 042 PM6 No. 1 Former Ex (44-0734)  
 SV 043 PM6 No. 2 Former Ex (44-0736)  
 SV 044 PM6 No. 3 Former Ex (44-0735)  
 SV 045 PM6 No. 4 Former Ex (44-2430)  
 SV 046 PM6 Press Ex Fan (44-0745)  
 SV 047 PM6 Vacuum Pump Ex (44-0218)  
 SV 048 PM6 Vacuum Roll Ex (44-0744)

| 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 (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 009 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    |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**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**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**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 year starting 06/15/2005 to measure 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 twelve months between test dates.                | Minn. R. 7017.2020, subp. 1  |
| Performance Test: due before end of each 36 months starting 06/15/2005 to measure particulate 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 36 months between test dates.                   | Minn. R. 7017.2020, subp. 1  |
| 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)                       |
| 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   |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

|  |  |
|--|--|
| 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 starting 06/14/1999 . 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 starting 06/14/1999 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.<br><br>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**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**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  |
|---|---|
| <p>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:</p> $N \leq 400 + 9.028n$ <p>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.</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>Recordkeeping: The Permittee shall maintain daily records of the amount of natural gas combusted in each boiler.</p> <p>By the 15th of each month, calculate the previous 12 months natural gas usage and compare to the limit. Record the results.</p>  | <p>Title I Condition: Recordkeeping for limit taken to avoid classification as a major modification under 40 CFR 52.21</p>    |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**Subject Item:** EU 015 Pressurized Groundwood Mill

- Associated Items:** CE 012 Direct Flame Afterburner w/Heat Exchanger  
 GP 001 Paper Machines/Pressurized Groundwood Mills  
 SV 035 PGW Main Stack (29-0707)  
 SV 038 PGW Disc Thickener (29-0700)  
 SV 039 PGW Bleach Press Ex (29-0703)  
 SV 040 PGW General Chest Ex (29-0708)  
 SV 041 PGW Grinder Air Lock

| What to do   | Why to do it  |
|--|---|
| LIMITS   | hdr   |
| <p>Required Control Equipment: The Permittee shall operate and maintain a Regenerative Thermal Oxidizer (RTO) to control emissions from the General Chest (SV 040) and Grinder Air Lock vents (SV 041) anytime the PGW grinders are grinding wood, and/or screening and cleaning operations are occurring.</p> <p>Report all excess emissions during a malfunction condition, and take actions to reduce emissions, according to Minn. R. 7019.1000.</p>   | <p>Title I Condition: 40 CFR Section 52.21 operational and reporting requirement in support of BACT limit; Minn. R. 7007.3000; Minn. R. 7019.1000</p> |
| <p>Volatile Organic Compounds: greater than or equal to 90 percent destruction efficiency or less than or equal to 0.081 lb VOC (as C)/ton of bone-dry pulp from the General Chest (SV 040) and Grinder Air Lock vents (SV 041). The Permittee shall operate and maintain the RTO such that it continuously achieves these limits.</p>   | <p>Title I Condition: 40 CFR Section 52.21 BACT limit; Minn. R. 7007.3000</p>   |
| MONITORING REQUIREMENTS  | hdr   |
| <p>Temperature: greater than or equal to 1450 degrees F using 3-hour Rolling Average in the combustion chamber unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average temperature recorded during the most recent MPCA approved performance test where compliance was demonstrated. If the 3-hour rolling average temperature drops below the minimum temperature limit, the VOC emitted during that time shall be considered uncontrolled until the average minimum temperature is once again achieved. This shall be reported as a deviation.</p> | <p>Title I Condition: 40 CFR Section 52.21 monitoring requirement in support of BACT limit; Minn. R. 7007.3000</p>                                    |
| <p>Corrective Action: If the 3-hour rolling average combustion chamber temperature falls below the minimum required value, take corrective action, as outlined in the facility Operation and Maintenance Plan, to restore the temperature to the minimum required value. Make a record of all temperature deviations and corrective actions taken.</p>   | <p>Title I Condition: 40 CFR Section 52.21 monitoring requirement in support of BACT limit; Minn. R. 7007.3000</p>                                    |
| <p>Monitoring Equipment: The Permittee shall install and maintain monitoring equipment necessary for measuring the temperature as required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever the RTO is required to be operated.</p>  | <p>Minn. R. 7007.0800, subp. 4</p>  |
| <p>The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the RTO combustion chamber temperature. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the 3-hour rolling average combustion chamber temperature.</p>   | <p>Minn. R. 7007.0800, subp. 4</p>  |
| <p>The Permittee shall maintain a continuous hard copy readout or computer file of the temperature readings and calculated 3-hour rolling average temperatures for the RTO combustion chamber.</p>   | <p>Minn. R. 7007.0800, subp. 5</p>  |
| <p>Daily Monitoring: The Permittee shall physically check the temperature recording device, and make a record, at least once each operating day to verify that it is working and recording properly.</p>   | <p>Minn. R. 7007.0800, subp. 4</p>  |
| <p>Quarterly Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment internal and external system components specified in the Operation and Maintenance Plan for the facility. The Permittee shall maintain a written record of the inspections and any corrective actions taken resulting from the inspections.</p>  | <p>Minn. R. 7007.0800, subps. 2, 5, 14</p>  |
| <p>Annual Calibration: The Permittee shall calibrate the temperature monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.</p>   | <p>Minn. R. 7007.0800, subps. 2, 5, 14</p>  |
| <p>PGW Production Record keeping: The Permittee shall daily record the 24-hour PGW production in bone-dry tons pulp per day. From this, the Permittee shall calculate and record the 365 day rolling average pulp production.</p>  | <p>40 CFR Part 52.21(y)</p>   |
| PERFORMANCE TESTING  | hdr   |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

|   |  |
|---|--|
| <p>Performance Test: due before end of each 60 months starting 10/08/2003 of the RTO. The performance test must use current EPA reference test methods and need not include methane emissions as part of VOC emissions. For required submittals pertaining to performance tests, see the Total Facility requirements table.</p>   | <p>Title I Condition: 40 CFR Section 52.21 testing requirement in support of BACT limit; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1</p> |
| <p>CLEAN UNIT DESIGNATION</p>   | <p>hdr</p>   |
| <p>Clean Unit Designation: This unit qualifies as a Clean Unit for volatile organic compounds provided the Permittee complies with the provisions of 40 CFR Section 52.21(x). This designation is effective on June 23, 2003 and expires on June 23, 2013.</p>  | <p>Title I Condition: 40 CFR Section 52.21(x)(6) and Minn. R. 7007.3000</p>  |
| <p>Basis for Clean Unit Designation. In addition to the BACT limits contained in this permit, the following parameters formed the basis for the BACT Determination:<br/>-750 tons bone dry pulp per day.<br/><br/>Record th 24-hour PGW production in bone-dry tons pulp per day.</p>   | <p>Title I Condition: 40 CFR Section 52.21(x)(6)(iv) and Minn. R. 7007.3000</p>  |
| <p>To maintain the Clean Unit designation, the Permittee must conform to all the restrictions listed in 40 CFR Section 52.21(x)(7). Failure to do so results in the unit losing the Clean Unit designation.</p>   | <p>Title I Condition: 40 CFR Section 52.21(x)(7) and Minn. R. 7007.3000</p>  |
| <p>Report of loss of Clean Unit CU status: The Permittee shall submit written notification of a deviation of the MPCA if Clean Unit status for VOCs is lost due to noncompliance with 40 CFR Section 52.21(x)(7). (See item below.) The Permittee shall report the deviation from CU maintenance requirements, specifying the pollutant for which CUD is lost, on the Semiannual Deviations Report (see Table B) and according to the schedule in the permit for "Deviations Endangering Human Health or the Environment" (see Table A, Total Facility Requirements) if applicable. The Permittee and the Agency shall each attach a copy of the notification to the permit. The Permittee shall submit an application for a major amendment within 30 days of discovery of loss of CU status.</p>  | <p>Title I Condition: 40 CFR Section 52.21(x)(7); Minn. R. 7007.3000</p>   |
| <p>Loss of Clean Unit status occurs if any of the following occur:<br/>-the Permittee fails to comply with the emission limit or work practice(s) specified in the permit with the Clean Unit Designation<br/>-the Permittee makes any physical or operational change to the Clean Unit that causes the unit to operate in a manner inconsistent with any physical or operational characteristic that is part of the basis of the Clean Unit Designation<br/>-the Permittee fails to comply with any term in the permit that is related to the Clean Unit Designation<br/>-the Permittee replaces the emissions unit or control technology<br/><br/>The Permittee must use the actual-to-projected actual test (40 CFR Section 52.21(a)(2)(iv)(c)) for the pollutant for which the CUD is lost for all subsequent changes to the Clean Unit until the unit requalifies as a Clean Unit.</p> | <p>Title I Condition: 40 CFR Section 52.21(x)(7); Minn. R. 7007.3000</p>   |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**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)&amp;(g); Minn. R. 7011.0565</p>  |
| C. PERFORMANCE TESTING REQUIREMENTS   | hdr  |
| <p>Performance Test: due before end of each 60 months starting 02/19/2002 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>  |
| 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>                  |
| <p>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.</p>  | <p>40 CFR Section 60.48b(f); Minn. R. 7011.0565</p>  |
| <p>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.</p>  | <p>Minn. R. 7017.1170, subp. 2; 40 CFR Part 60, Appendix F, Section 3</p>  |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

|  |   |
|--|---|
| 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**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

**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)&amp;(g); Minn. R. 7011.0565.</p>   |
| C. PERFORMANCE TESTING REQUIREMENTS   | hdr  |
| <p>Performance Test: due before end of each 36 months starting 06/15/2002 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>  |
| 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>                  |
| <p>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.</p>  | <p>40 CFR Section 60.48b(f)); Minn. R. 7011.0565</p>   |
| <p>CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test.</p>  | <p>Minn. R. 7017.1060, subp. 3</p>   |
| <p>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.</p>  | <p>Minn. R. 7017.1170, subp. 2; 40 CFR Part 60, Appendix F, Section 3</p>  |

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

|  |  |
|--|--|
| 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**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center  
Permit Number: 06100001 - 006

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**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

| <b>What to send</b>               | <b>When to send</b>  | <b>Portion of Facility Affected</b> |
|-----------------------------------|--|-------------------------------------|
| Application for Permit Reissuance | due 180 days before expiration of Existing Permit                        | Total Facility                      |
| Notification                      | due 120 days after 11/12/2004, effective date of 40 CFR 63, Subp. DDDDD. | Total Facility                      |

**TABLE B: RECURRENT SUBMITTALS**

02/15/05

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 006

| 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 starting 06/14/1999 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                        |
| Excess Emissions/Downtime Reports (EER's) | due 30 days after end of each calendar quarter starting 07/31/2000 (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 starting 07/31/2000 (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                        |
| Semiannual Deviations Report              | due 30 days after end of each calendar half-year starting 06/14/1999 . 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 starting 06/14/1999 (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 starting 06/14/1999 (April 1). To be submitted on a form approved by the Commissioner.  | Total Facility               |

APPENDIX MATERIAL

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001-006

**Insignificant Activities List**

M.R. 7007.1300, subp. 3 - Insignificant Activities Required to be Listed

- A. Fuel Use: Space heaters fueled by kerosene, natural gas, or propane:
  - A#1 Space heater with a total maximum capacity of 20 MMBtu/hr
  - A#2 Several natural gas fired space heaters used for comfort heat only.
  
- D. Finishing Operations: Equipment vented inside a building used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding sawing, surface grinding, or turning of ceramic precision parts, leather, metals, plastics, masonry, carbon, wood, or glass, provided that emissions from the equipment are:
  - a. filtered through an air cleaning system; and
  - b. vented inside of the building 100% of the time
  - D#1 Paper Trimmers
  
- E. Storage tanks:
  - 2. Non-hazardous air pollutant VOC storage tanks with a combines total tankage capacity not more than 10,000 gallons of non-hazardous air pollutant VOC's and with a vapor pressure of not more than 1.0 psia at 60 degrees F.

| FACILITY NUMBER                     | LOCATION | CONTENTS           | SIZE (GAL) | SECONDARY CONTAINMENT | COLOR  |
|-------------------------------------|----------|--------------------|------------|-----------------------|--------|
| <b>MAIN MILL</b>                    |          |                    |            |                       |        |
| 26                                  | Main     | #1 Dye Run Tank    | 225        | Bldg                  | Silver |
| 27                                  | Main     | #2 Dye Run Tank    | 225        | Bldg                  | Silver |
| 28                                  | Main     | #3 Dye Run Tank    | 225        | Bldg                  | Silver |
| 29                                  | Main     | #4 Dye Run Tank    | 225        | Bldg                  | Silver |
| 31                                  | Bsmt     | Kerosene           | 92         | Bldg                  | Green  |
| <b>NO. 5 PAPER MACHING BUILDING</b> |          |                    |            |                       |        |
| 16                                  | Grd Flr  | Kerosene           | 92         | Bldg                  | Green  |
| 18                                  | Mez      | Ret. Aid Make Down | 1982       | Bldg                  | Silver |
| 19                                  | Mez      | #1 Dye Make Down   | 360        | Bldg                  | Silver |
| 20                                  | Mez      | #2 Dye Make Down   | 360        | Bldg                  | Silver |
| 21                                  | Opr Flr  | Ret. Aid Tank      |            | Bldg                  | Silver |
| <b>COATING PREP</b>                 |          |                    |            |                       |        |
| 6                                   | Bsmt     | Latex              | 20000      | Bldg                  | Silver |
| 7                                   | Bsmt     | Latex              | 20000      | Bldg                  | Silver |
| 22                                  | Mez      | #3 Starch Mix-Top  | 800        | Bldg                  | Gray   |
| 23                                  | Mez      | #3 Starch Mix-Wire | 700        | Bldg                  | Gray   |
| 24                                  | Mez      | #3 Clay Mix-Top    | 1100       | Bldg                  | Gray   |
| 25                                  | Mez      | #3 Clay Mix-Wire   | 1100       | Bldg                  | Gray   |
| 26                                  | Mez      | #3 Cook Tank-Top   | 1100       | Bldg                  | Gray   |
| 27                                  | Mez      | #3 Cook Tank-Top   | 1100       | Bldg                  | Gray   |
| 28                                  | Mez      | #3 Stor. Tank-Top  | 1200       | Bldg                  | Gray   |
| 29                                  | Mez      | #3 Stor. Tank-Top  | 1100       | Bldg                  | Gray   |
| 30                                  | Mez      | #4 Starch Mix-Top  | 400        | Bldg                  | Gray   |

| 31                     | Mez             | #4 Starch Mix-Wire | 400               | Bldg                         | Gray         |
|------------------------|-----------------|--------------------|-------------------|------------------------------|--------------|
| 32                     | Mez             | #4 Clay Mix-Top    | 1100              | Bldg                         | Gray         |
| 33                     | Mez             | #4 Clay Mix-Wire   | 1100              | Bldg                         | Gray         |
| 34                     | Mez             | #4 Cook Tank-Top   | 1100              | Bldg                         | Gray         |
| 35                     | Mez             | #4 Cook Tank-Wire  | 1100              | Bldg                         | Gray         |
| 36                     | Mez             | #4 Stor. Tank-Top  | 1100              | Bldg                         | Gray         |
| 37                     | Mez             | #4 Stor. Tank-Wire | 1100              | Bldg                         | Gray         |
| 38                     | Mez             | #5 Starch Mix-Top  | 800               | Bldg                         | Gray         |
| 39                     | Mez             | #5 Starch Mix-Wire | 800               | Bldg                         | Gray         |
| 40                     | Mez             | #5 Clay Mix-Top    | 1900              | Bldg                         | Gray         |
| 41                     | Mez             | #5 Clay Mix-Wire   | 1900              | Bldg                         | Gray         |
| 42                     | Mez             | #5 Cook Tank-Top   | 1800              | Bldg                         | Gray         |
| 43                     | Mez             | #5 Cook Tank-Wire  | 1800              | Bldg                         | Gray         |
| 44                     | Mez             | #5 Stor. Tank-Top  | 1900              | Bldg                         | Gray         |
| 45                     | Mez             | #5 Stor. Tank-Wire | 1900              | Bldg                         | Gray         |
| 46                     | Mez             | #6 Starch Mix-Top  | 1800              | Bldg                         | Gray         |
| 47                     | Mez             | #6 Starch Mix-Wire | 1800              | Bldg                         | Gray         |
| 48                     | Mez             | #6 Clay Mix-Top    | 4000              | Bldg                         | Gray         |
| <b>FACILITY NUMBER</b> | <b>LOCATION</b> | <b>CONTENTS</b>    | <b>SIZE (GAL)</b> | <b>SECONDARY CONTAINMENT</b> | <b>COLOR</b> |
| 49                     | Mez             | #6 Clay Mix-Wire   | 4000              | Bldg                         | Gray         |
| 50                     | Mez             | #6 Cook Tank-Top   | 4000              | Bldg                         | Gray         |
| 51                     | Mez             | #6 Cook Tank-Wire  | 4000              | Bldg                         | Gray         |
| 52                     | Mez             | #6 Stor. Tank-Top  | 4000              | Bldg                         | Gray         |
| 53                     | Mez             | #6 Stor. Tank-Wire | 4000              | Bldg                         | Gray         |

**COOPERAGE**

|   |         |                               |       |      |           |
|---|---------|-------------------------------|-------|------|-----------|
| 2 | Grd Flr | Latex                         | 24000 | Bldg | Off-White |
| 3 | Grd Flr | Latex                         | 24000 | Bldg | Off-White |
| 6 | Grd Flr | Ctg Plastic Pigment (Ropaque) | 7850  | Bldg | Brown     |
| 7 | Grd Flr | City Plastic Pigment          | 7850  | Bldg | Brown     |

**NO. 6 PAPER MACHINE BUILDING**

|    |         |                   |      |      |        |
|----|---------|-------------------|------|------|--------|
| 12 | Mez     | Ret. Make Down    | 2400 | Yes  | Silver |
| 17 | Opr Flr | Ret. Aid Run Tank | 2400 | Yes  | Silver |
| 21 | Opr Flr | Dye Run Tank      | 750  | Yes  | Silver |
| 22 | Opr Flr | Dye Make Down     | 500  | Yes  | Silver |
| 24 | Grd Flr | Kerosene          | 92   | Bldg | Yellow |

G. Emissions from a laboratory, as defined in the form instructions:

G#1 Research Paper Coater – Coating could not be used for production.

H. Brazing, soldering, or welding equipment

H#1 Several maintenance welding stations located throughout the facility.

I. Individual emission units at a stationary source which each have a potential to emit for each of the following pollutants less than:

- 1) 4000 lbs/year of carbon monoxide

- 2) 2000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutants containing VOC), and ozone.

- I#1 Clay Unload and Convey – Clay is received wet in slurry form and contains a very small amount of VOCs.  
I#2 Log Debarking – all wood is wet.  
I#3 Five – 5000 cfm 400,000 Btu Modine Recirculation Units in Building No. 5 Shipping  
I#4 Ten - 5000 cfm 400,000 Btu Modine Recirculation Units in Kraft Warehouse  
I#5 Natural gas-fired office boiler – 1.9 mmBtu/hr

M.R. 7007.1300, subp. 4 - Insignificant Activities Required to be Listed in a Part 70 Application

Several parts washers used for maintenance activities utilizing solvent containing high flash point solvents

Several makeup air units:

- TM2 Outside - 11 MMBtu/hr
- Calcium Carbonate Bldg. – 3.5 MMBtu/hr
- Building #5 Coater + Shop – 16.85 MMBtu/hr
- Old Powerhouse – 4.3 MMBtu/hr
- Old Powerhouse – 4.3 MMBtu/hr

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 06100001-006**

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

**1. General Information**

**1.1. Applicant and Stationary Source Location:**

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

**1.2. Description Of The Facility**

Blandin Paper Company (Blandin) and Minnesota Power operate a Pressurized Groundwood (PGW) pulp mill and paper facility in Grand Rapids, which is described in the Technical Support Document (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.

Effective March 1, 2000, Blandin Paper Company and Minnesota Power signed an Agreement resulting in Minnesota Power being the operator of certain steam and electric production facilities located at the Blandin site. Minnesota Power uses its own employees, and then sells steam and electricity back to Blandin.

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. Since this permit amendment is being pursued

primarily by Blandin staff, Blandin will be referred to as the applicant throughout most of this TSD. This does not impact the co-permittee status at the facility.

### **1.3 Description of the Activities Allowed by this Permit Action**

This permit action incorporates two applications. On January 29, 2004, Blandin Paper Company/Rapids Energy Center (Blandin) submitted a permit application for a major amendment to its Part 70 permit. That application asked for the removal of Title I Conditions set for the operation of steam recovery systems, including two on Paper Machines 3 and 4. The Title I Conditions were set so that the addition of a gap former and steam box to Paper Machine 6 would not cause a significant net emissions increase as defined under 40 CFR 52.21. The request for removal of the steam recovery system requirements was made because Paper Machines 3 and 4 were decommissioned in December 2002 leading to an emission reduction. Additionally, the application asked that the pressurized groundwood mill (PGW) be designated as a Clean Unit as is provided for under 40 CFR 52.21(x).

On August 2, 2004, Blandin submitted an application for a major amendment to replace the burners in the gas-fired boilers 7 and 8. The reason for the burner change is that the existing burners do not allow for sufficient turn down, and hence often cause the facility to use more natural gas that would otherwise be necessary. In addition, the company plans to install 10 mmBtu pilot burners in each boiler to reduce the time for boiler startup. Ultimately, the company expects to realize a savings in natural gas usage from this as well. The heat input of the boilers is 280 mmBtu per hour each from the main burners (as before). There is an additional heat input of 10 mmBtu per hour due to the pilot burners.

The MPCA has determined that the modifications proposed in the August 2, 2004, permit application qualify as an insignificant activity, not as a modification requiring a major amendment. Calculations showing the potential emission increase of the new burners, and calculations of future actual emissions minus past actual are attached to this technical support document. Because the modifications qualify as an insignificant modification, the company is allowed by Minnesota Rules to proceed without with the modification without issuance of a permit.

Other changes were made to the permit other than those applied for. They were:

1. Requirements for submittals that have already been submitted have been deleted;
2. Stack emissions testing frequency requirements have been changed based on the most recent stack test results;
3. The required operating temperature for the RTO has been reduced to 1450 degrees F based on stack emission test results; and
4. Submittals required pertaining to stack emission testing (notifications, test reports, etc.) have been specified at the total facility level, rather than each individual emission unit. Please note that these are in Table A under the Total Facility requirements, rather than Table B.

All of the above changes are consistent with MPCA policy.

**1.4. Facility Emissions:**

**Table 1. Title I Emissions Increase Summary**

(Decrease realized from the shutdown of Paper Machines 3 and 4, and shutdown of the heat recovery systems on the paper machines and groundwood pulp mill.)

| Pollutant        | Emissions Increase from the Modification (tpy)** | Limited Emissions Increase from the Modification (tpy)**** | Source-wide Contemporaneous Increases and Decreases* (tpy) | Net Emissions Increase (tpy) | PSD/112(g) Significant Thresholds for major sources | NSR/112(g) Review Required? (Yes or No) |
|------------------|--|--|--|------------------------------|---|---|
| PM               | 5.12   |  |  |                              | 25  | No                                      |
| PM <sub>10</sub> | 2.46   |  |  |                              | 15  | No                                      |
| NO <sub>x</sub>  | 38.5   |  |  |                              | 40  | No                                      |
| SO <sub>2</sub>  | 58.4   |  | 34.46  | 23.9                         | 40  | No                                      |
| CO               | 22.9   |  |  |                              | 100   | No                                      |
| Ozone (VOC)      | 13.2   |  |  |                              | 40  | No                                      |
| Lead             | neg  |  |  |                              | 0.6   | No                                      |

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

\*\* Emission increase is from the gap former/steam box project.

**Table 2. Non-Title I Emissions Increase Summary**

Increase from two pilot burners installed on Boilers 7 and 8.

| Pollutant        | After Change (lb/hr) | Before Change (lb/hr) | Net Change (lb/hr) | Insignificant Modification Thresholds (lb/hr <) | Minor and Moderate Amendment Thresholds (lb/hr < or ≥) | Type of Amendment (Minor or Moderate) |
|------------------|----------------------|-----------------------|--------------------|---|--|---------------------------------------|
| PM <sub>10</sub> | 0.16                 | 0                     | 0.16               | 0.855   | 3.42   | Insign.                               |
| NO <sub>x</sub>  | 0.80                 | 0                     | 0.80               | 2.28  | 9.13   | Insign.                               |
| SO <sub>2</sub>  | 0.02                 | 0                     | 0.02               | 2.28  | 9.13   | Insign.                               |
| CO               | 1.66                 | 0                     | 1.66               | 5.70  | 22.80  | Insign.                               |
| VOC              | 0.10                 | 0                     | 0.10               | 2.28  | 9.13   | Insign.                               |
| Lead             | 0.0                  | 0.0                   | 0.0                | 0.025   | 0.11   | Insign.                               |

**Table 4. Facility Classification**

| <b>Classification</b>  | <b>Major/Affected Source</b> | <b>Synthetic Minor</b> | <b>Minor</b> |
|------------------------|------------------------------|------------------------|--------------|
| PSD                    | X                            |                        |              |
| Part 70 Permit Program | X                            |                        |              |
| Part 63 NESHAP         | X                            |                        |              |

## 2. Regulatory and/or Statutory Basis

### New Source Review

The facility is an existing major source under New Source Review. This permit does not change the status of the facility.

The facility's existing permit contains Title I Conditions requiring the operation of steam recovery systems. The conditions were set to offset emission increases that resulted from the installation a gap former and steam box on Paper Machine 6.

The facility has now decommissioned Paper Machines 3 and 4. In shutting down the paper machines, the company realized a decrease in actual emissions at its boilers, and the MPCA, accordingly, is removing the requirements pertaining to the steam recovery systems from the permit.

MPCA staff asked the company to re-perform its netting analysis for the modifications involving the installation of the gap former and steam box. That analysis is attached.

This permit also authorizes the change of burners on Boilers 7 and 8, and the installation of pilot burners to maintain heat within the boiler during periods of shutdown for the purposes of reducing cold start time. The change of burners is to allow for greater turndown ability, not to increase heat input.

With the change in burners, and the installation of the pilot burners, the company has performed a future actual minus past actual calculation of emission increases, and determined that there will not be a significant net emissions increase due to the change. This method of calculating emissions changes is provided for in 40 CFR 52.21(a). Because the calculation has shown that significant net emission increase thresholds set in 40 CFR 52.21 will not be exceeded, the modification is not subject to 40 CFR 52.21, Prevention of Significant Deterioration.

Additionally, the application asked that the pressurized groundwood mill (PGW) be designated as a Clean Unit as is provided for under 40 CFR 52.21(x).

### Part 70 Permit Program

This facility is an existing major source under the Part 70 Permit Program.

### New Source Performance Standards (NSPS)

The modified boilers are currently subject to 40 CFR 60, Subp. Db. This modification does not change the status of the boiler.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

There is no installation of a major source of hazardous air pollutants authorized by this permit amendment. The boilers on site will be subject to the 40 CFR 63 Subp. DDDDD NESHAP when it becomes effective.

### Minnesota State Rules

The paper machines are subject to Minnesota Performance Standards.

**Table 5. Regulatory Overview of Units Affected by the Modification/Permit Amendment**

| EU, GP, or SV | Applicable Regulations | Comments:   |
|---------------|------------------------|---|
| GP 001        | 40 CFR 52.21           | Requirements for operation of heat recovery systems have been removed due to reductions realized from the shutdown of Paper Machines 3 and 4. |

### 3. Technical Information

Emission calculations are attached to this technical support document.

#### 3.2 Comments Received

Public Notice Period: November 11, 2004 – December 12, 2004

EPA 45-day Review Period: November 11, 2004 – December 27, 2004

Two persons commented on the permit amendment during the comment period; Brandy Toft with the Leech Lake Band of Ojibwe, and Christine Berini with the Fond du Lac Reservation Environmental Program. Both persons expressed concerns about dioxin emissions at the facility, and asked that toxics be assessed and addressed. Ms. Toft also asked that additional controls be placed on the paper machines, the PGW, the coaters/dryers, and the natural gas fired boilers. She also asked that the facility comply with the boiler MACT for its two wood/coal burning boilers earlier than the September 13, 2007 compliance date. Neither person expressed any concern about the amendment itself, or the changes allowed for.

Minn. R. 7007.0950 allows for EPA's review of the permit to be concurrent with public review, however, subp. 2. B. (3) reads:

(3) If the agency receives from the public any adverse comments on any applicable requirement of the permit during the 30-day comment period, the agency shall provide the comments to the administrator. The agency shall not issue the permit or permit amendment if the administrator objects to its issuance in writing within 45 days of receipt of the comments and, if applicable, the revised proposed permit or permit amendment and any necessary supporting information.

MPCA staff considered whether or not the fact that it had received comments during the comment period precluded it from issuing the permit at the end of EPA's 45 period. Staff determined that since the comments did not pertain to the amendment, that receipt of the comments did not.

Staff sent letters to both persons, and suggested that their concerns would be more appropriately addressed during reissuance of the total facility permit. Staff then spoke with Ms. Toft, and Ms.

Berini's contact person, Joy Wiecks, and both agreed that permit issuance would be the best time to address their concerns.

#### 4. Conclusion

Based on the information provided by Blandin, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 06100001-006 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:      Jenny Reinertsen (permit writer/engineer)  
   Bob Beresford (enforcement)  
   Marshall Cole (peer reviewer)  
   Dave Beil (peer reviewer)

Attachments: 1. Calculation Spreadsheets  
                                 \*Netting analysis  
                                 \*\*Emission increase analysis for Boilers 7 and 8