AIR EMISSION PERMIT NO. 06100001- 011

IS ISSUED TO

Blandin Paper Company/Minnesota Power
Rapids Energy Center/Minnesota Power
115 1st Street Southwest
Grand Rapids, Itasca County, MN 55744

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 06100001-010, and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: Federal; Pt 70/NSR Authorization
Operating Permit Issue Date: August 31, 2006
Authorization to Construct and Operate (40 CFR § 52.21) Issuance Date: September 18, 2008
Major Amendment Issue Date: September 18, 2008
Authorization to Construct and Operate (40 CFR § 52.21) Effective Date: September 18, 2008
Expiration Date: August 31, 2011 - Title I Conditions do not expire.

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action Number
Total Facility Oper. Permit - Reissuance	12/15/2003	-009
Major Amendment	08/23/2005, updated 04/07/2006	-009
Administrative Amendment	02/20/2006	-010
Administrative Amendment	02/06/2007	-011
Major Amendment	08/16/2007	-011

TABLE OF CONTENTS

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 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, two paper machines, and two 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 subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) program and is subject to Maximum Achievable Control Technology (MACT) standards under Subpart JJJJ (Paper and Other Web Coating).

The paper machines and coater/dryers are uncontrolled sources. The main power boilers (the wood/coal-fired units) are controlled by high efficiency electrostatic precipitators. The PGW is controlled by a thermal oxidizer. The natural gas-fired boilers use flue gas recirculation to control the Nitrogen Oxides (NO_x) emissions.

Permit Action 009

This permit action was a reissuance of the Title V permit; as part of the reissuance Compliance Assurance Monitoring (CAM) for the PGW and the solid-fuel boilers was incorporated into the permit. The NESHAP, Subpart JJJJ requirements were incorporated since the compliance date had passed. The existing boilers were at the time subject to the NESHAP, Subpart DDDDD; the compliance date had not passed yet so the full requirements were not incorporated into the permit at that point. (Since then, Subpart DDDDD has been vacated.)

The permit action also incorporated a major amendment for a modification increasing paper production (Project Thunderhawk). Blandin intended to add a Thermomechanical Pulp (TMP) mill to produce additional pulp. The existing PGW will be modified and will continue to operate. As part of the project, Paper Machine (PM)5 and its coater/dryer will be shutdown and a new paper machine (PM7) will be added. There will be increased demand for energy. There will be heat recovery from the TMP which will be used to provide much of the increased steam demand. In addition, a natural gas-fired boiler will be added as a back-up for the times when the TMP is down, but both paper machines are operating; the new boiler was also permitted as subject to the NESHAP, Subpart DDDDD, which has since been vacated. Other changes at the facility were also evaluated in the permitting process. Blandin performed a netting analysis and determined that the project required a major amendment under PSD; the netting analysis showed that the emissions of Nitrogen Oxides (NO_x), Sulfur Dioxide (SO_2), and Volatile Organic Compounds (VOC) are above the PSD significant thresholds. Best Available Control Technology controls resulting from the PSD analysis are a thermal oxidizer to control VOCs from the TMP and flue gas recirculation for NO_x control for the new boiler.

Permit Action 010

This permit action was an administrative amendment incorporating the new continuous emission monitors at the facility into the MPCA Delta Database. Blandin-Rapids Energy had initially requested an extension to its deadline for completing Relative Accuracy Test Audits (RATA) on the existing monitors, as they would shortly be replaced. 40 CFR Part 60, and Minnesota Rules, however, require the completion of a RATA prior to the end of a calendar year. Minnesota Power completed its required RATAs prior to the end of the calendar year, and no changes are needed to permit conditions.

Permit Action 011

This permit action extends the construction authorization for Project Thunderhawk, originally permitted under Permit Action 009, to 18 months after permit issuance. No changes to the BACT determination as originally permitted are authorized.

In addition to the extension of construction authorization, the following changes were made:

- Requirements associated with 40 CFR Part 63, Subpart DDDDD, were removed from EU033. The standards was vacated, and the unit is not a major HAP source by itself, so the Permittee will instead be required to submit a request for case-by-case determination of the standard under Section 112(j) of the Clean Air Act (due 30 days after startup of the boiler).
- The permit acknowledges a 120-day extension to the testing deadlines on Boilers 7 and 8 (EU016 and EU017) for the tests due in 2007. This change was requested in the application for administrative amendment received on February 6, 2007.
- Requirements associated with 40 CFR Part 63, Subpart DDDDD, were removed from GP003, EU016, and EU017. Since the rule was vacated, these units are also subject to the requirement for a case-by-case MACT determination under Section 112(j) of the Clean Air Act. The facility has submitted the information requested by the MPCA; the MPCA will take action on 112(j) requests at a later date.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020
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
The Permittee shall comply, and upon written request demonstrate compliance, with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080.	40 CFR pt. 50; Minn. Stat. Sec. 116.07, subds. 4a and 9; Minn. R. 7007.0100, subps. 7A, 7L and 7M; Minn. R. 7007.0800, subps. 1, 2, and 4; Minn. R. 7009.0010-7009.0080
Parameters Used in Modeling: The stack heights, emission rates, & other parameters used in the NOx and SO2 PSD modeling as reviewed & incorporated in PER 009 are listed in Appendix C of this permit. The Permittee must submit to the Commissioner for approval any revisions of these parameters and must wait for a written approval before making such changes. The information submitted must include, at a minimum, the locations, heights and diameters of the stacks, locations and dimensions of nearby buildings, the velocity and temperatures of the gases emitted, and the emission rates. The plume dispersion characteristics due to the revisions of the information must be equivalent to or better than the dispersion characteristics most recently modeled. The Permittee shall demonstrate this equivalency in the proposal. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000
Modeling Parameters continued: For changes that do not involve an increase in an emission rate listed in App. C and/or that do not require a permit amendment, this proposal must be submitted as soon as practicable, but no less than 60 days before beginning actual construction of the stack or associated emission unit. For changes involving increases in emission rates listed in App. C and that require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before beginning actual construction of the stack or associated emission unit. For changes involving increases in emission rates listed in App. C and that require a permit amendment other than a minor amendment, the proposal must be submitted with the permit application.	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

The construction authorization expires 18 months after issuance of this permit (06100001-011). The Permittee must keep a record of the dates of installation and start-up on site. The Permittee may apply for an extension of the construction authorization deadline by following the appropriate amendment procedures; an updated BACT analysis will need to be included with or prior to an amendment.	Title I Condition: 40 CFR Section 52.21(r)(2); Minn. R. 7007.3000
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: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche or CD Copy: due 105 days after each Performance Test 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 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)
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

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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 Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
The Permittee may be required to submit a Risk Management Plan (RMP) under the federal rule, 40 CFR pt. 68. 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.	40 CFR pt. 68
G. DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr
These requirements apply where there is a reasonable possibility that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project. Even though a particular modification is not subject to New Source Review, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following information: 1. A description of the project 2. Identification of the emission unit(s) whose emissions of an NSR pollutant could be affected 3. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the potential emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the unit(s) could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
The Permittee must submit a report to the Agency if the annual summed (actual plus potential, if applicable) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual plus potential, if any part of the project was analyzed using potential emissions) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.	Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5
H. NESHAP GENERAL PROVISIONS - 40 CFR pt. 63, subp. A	hdr
Note: These requirements apply to emission units and associated pollution control and monitoring equipment as applicable, which are subject to a standard issued under 40 CFR Part 63. The emission units in GP 002 are subject to the Paper and Other Web Coating NESHAP, Subpart JJJJ. The facility is not using controls as a compliance option, and thus these emission units are not required to be included in a Startup, Shutdown and Malfunction Plan (SSMP). Any requirements related to a SSMP do not apply to GP 002.	hdr
Proper Operation and Maintenance: At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the emission unit(s) subject to the MACT standard and its associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.	40 CFR Section 63.6(e)(1)(i); Minn. R. 7011.7000
Malfunctions: Malfunctions shall be corrected as soon as practicable after their occurrence.	40 CFR Section 63.6(e)(1)(ii); Minn. R. 7011.7000
The Permittee shall prepare a written Startup, Shutdown, and Malfunction Plan (SSMP) for each of the emission units, including associated control and monitoring equipment, subject to Maximum Control Technology Standards by the applicable MACT standard compliance date. The SSMP shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and include requirements specified therein. The SSMP must be located at the plant site and must be kept updated. When the SSMP is updated, the Permittee must keep all previous versions of the SSMP for a period of 5 years. The Permittee must submit the SSMP when required.	40 CFR Section 63.6(e)(3)(i); 40 CFR Section 63.6(e)(3)(v); Minn. R. 7011.7000
When actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSMP, the Permittee must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the Permittee must keep records of these events as specified in 40 CFR Section 63.10(b). Furthermore, the Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the SSMP in the Semi-Annual startup, shutdown, and malfunction report required in 40 CFR Section 63.10(d)(5).	40 CFR Section 63.6(e)(3)(iii)

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Recordkeeping: The Permittee shall maintain files of all information required by this part in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site.	40 CFR Section 63.10(b)(1)
The Permittee shall maintain, at a minimum, the following information in the files: 1) the occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards; 2) the occurrence and duration of each malfunction of the emission unit or air pollution control or monitoring equipment; 3) all maintenance performed on the pollution control and monitoring equipment; 4) actions taken during periods of startup or shutdown when the source exceeded applicable emission limits in a relevant standard and when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (SSMP); or actions taken during period of malfunction when the actions taken are different from the procedures specified in the SSMP;	40 CFR Section 63.10(b)(2)
5) all information necessary to demonstrate conformance with the affected source's SSMP when all actions taken during SSM are consistent with procedures specified in the SSMP; 6) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative; 7) all required measurements needed to demonstrate compliance with a relevant standard; 8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations; 9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations; 10) all CMS calibration checks; 11) all adjustments and maintenance performed on CMS; 12) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part; 13) all documents supporting initial notifications and notifications of compliance status.	40 CFR Section 63.10(b)(2) (continued)
If actions taken during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards) or malfunction of an affected source are consisent with the procedures specified in the SSMP, then the Permittee shall state such information in a startup, shundown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns and malfunctions shall be summarized in the report. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission standards, or if a malfunction occurred during the reporting period. Such reports shall be delivered or postmarked by the 30th day following the end of each calendar half year.	40 CFR Section 63.10(d)(5)(i)
If an action taken by the Permittee during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or during a malfunction is not consistent with the procedures specified in the SSMP, then the Permittee shall report the actions taken for that event with an immediate report within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event. The immediate report, within 2 days, shall consist of a telephone call or fax and shall report the actions taken for the event. The letter, to be submitted within 7 days, must contain name, title, and signature of a responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSMP, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occured, and actions taken to minimize emissions.	40 CFR Section 63.6(e)(3)(iv); 40 CFR Section 63.10(d)(5)(ii)
Prior to construction or reconstruction of an "affected source" under the promulgated MACT standards, the Permittee must apply for and obtain an air emission permit.	40 CFR Section 63.5(b)(3)

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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

EU 034 Thermomechanical Pulp Mill (fugitives)

EU 039 Paper Machine #7

SV 010 Paper Machine 5

SV 011 Paper Machine 5

SV 012 Paper Machine 5

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) - RTO Bypass

SV 041 PGW Grinder Air Lock - RTO Bypass

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)

SV 064 TMP RTO Stack

SV 065 Thermomechanical Pulp Mill

SV 070 Paper Machine #7

SV 071 Paper Machine #7

SV 072 Paper Machine #7

SV 073 Paper Machine #7

SV 074 Paper Machine #7

SV 075 Paper Machine #7

SV 076 Paper Machine #7

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. 7011.0715, subp. 1.A.
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1.B.

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Periodic Monitoring: the Permittee shall maintain proper maintenance of the paper machines (EU 009, EU 010 and EU 039), the pressurized groundwood mills (EU 015) and the thermomechanical pulp mills (EU 034) 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

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **GP 002 Coaters/Dryers**

Associated Items: EU 013 Coater/Dryer #5

EU 014 Coater/Dryer #6

SV 019 Coater/Dryer #5

SV 020 Coater/Dryer #5

SV 021 Coater/Dryer #5

SV 022 Coater/Dryer #5

SV 023 Coater/Dryer #5

SV 024 Coater/Dryer #5

SV 025 Coater/Dryer #5

SV 026 Coater/Dryer #5

SV 027 Coater/Dryer #6

SV 028 Coater/Dryer #6

SV 029 Coater/Dryer #6

SV 030 Coater/Dryer #6

SV 031 Coater/Dryer #6

SV 032 Coater/Dryer #6

SV 033 Coater/Dryer #6

SV 034 Coater/Dryer #6

What to do	Why to do it
A. INDUSTRIAL PROCESS EQUIPMENT REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. 7011.0735.	Minn. R. 7011.0715, subp. 1.A.
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1.B.
Periodic Monitoring: the Permittee shall maintain proper maintenance of the coater/dryers (EU 013 and 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
B. NESHAP REQUIREMENTS	hdr
Notification of compliance status: due 180 days after 12/05/2005. Include: - compliance certification - results of any performance tests and/or other monitoring procedures or methods that were conducted - the methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods	40 CFR Section 63.3400(e); 40 CFR Section 63.9(h); Minn. R. 7011.7385
The Permittee shall limit organic HAP emissions to the level specified below: (1) No more than 4 percent of the mass of coating materials applied for each month; OR (2) No more than 20 percent of the mass of coating solids applied for each month. These limits apply to the collection of all web coating lines as defined at 40 CFR Section 63.3310.	40 CFR Section 63.3320(b)(1)-(3); Minn. R. 7011.7385
C. MONITORING AND RECORDKEEPING REQUIREMENTS	hdr

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Maintain the following records: Records specified in 40 CFR Section 63.10(b)(2) of all measurements needed to demonstrate compliance, including: (1) organic HAP content date used for demonstrating compliance in accordance with 40 CFR 63.3360(c) (2) volatile matter and coating solids content data used for demonstrating compliance with 40 CFR Secton 63.3360(d) (3) material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with 40 CFR Section 63.3370(b), (c), and (d).	40 CFR Section 63.3410(a); 40 CFR Section 63.10(b)(1); MInn. R. 7011.7385
D. TESTING REQUIREMENTS	hdr
The Permittee shall determine the organic HAP or volatile matter and coating solids content of the coating materials according to the procedures in 40 CFR Section 63.3360(c) and (d). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to 40 CFR Section 63.3360(g).	40 CFR Section 63.3360(a); Minn. R. 7011.7385
Method 311 - The Permittee may test the coating material in accordance with Method 311 of Appendix A of Part 63. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the Permittee. The organic HAP content must be calculated according to the criteria and procedures in 40 CFR Section 63.3360(c)(1)(i)-(iii).	40 CFR Section 63.3360(c)(1); Minn. R. 7011.7385
Method 24 - The Permittee may determine the volatile organic content of coatings as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of Appendix A of Part 60. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to the Permittee.	40 CFR Section 63.3360(c)(2); Minn. R. 7011.7385
Formulation Data - The Permittee may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the Permittee by the manufacturer of the material. In the event of an inconsistency between Method 311 test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP cpresent at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR Section 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.	40 CFR Section 63.3360(c)(3); Minn. R. 7011.7385
As-applied organic HAP mass fraction - if the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction. Otherwise, the as-applied organic HAP mass fraction must be calculated using Equation 1a of 40 CFR Section 63.3370.	40 CFR Section 63.3360(c)(4); Minn. R. 7011.7385
If determining compliance with the emission standards by means other than determining the overall organic HAP control efficiency of a control device and you choose to use the volatile organic content as a surrogate for the organic HAP content of coatings, you must determine the as-purchased volatile organic content and coating solids content of each coating material applied by following the procedures in 40 CFR Section 63.3360(d)(1) or (2), and the as-applied volatile organic content and coating solids content of each coating material by following the procedures of 40 CFR Section 63.3360(d)(3).	40 CFR Section 63.3360(d); Minn. R. 7011.7385
Method 24 - The Permittee may determine the volatile organic and coating solids mass fraction of each coating using Method 24 of Part 60 Appendix A. The Method 24 determination may be performed by the manufacturer of the material and the results provided to the Permittee. If these values cannot be determined using Method 24, the Permittee must submit an alternative technique for determining their values for approval by the Administrator.	40 CFR Section 63.3360(d)(1); Minn. R. 7011.7385
Formulation Data - The Permittee may determine the volatile organic content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and results of Method 24, amd the Method 24 results are higher, the results of Method 24 will govern.	40 CFR Section 63.3360(d)(2); Minn. R. 7011.7385
As-applied volatile organic content and coating solids content - If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile organic content and the as-applied coating solids content is equal to the as-purchased coating solids content. Otherwise, the as-applied volatile organic content must be calculated using Equation 1b of 40 CFR Section 63.3370 and the coating solids content must be calculated using Equation 2 of 40 CFR Section 63.3370.	40 CFR Section 63.3360(d)(3); Minn. R. 7011.7385

Volatile matter retained in the coated web or otherwise not emitted to the atmosphere - If the Permittee chooses to take this into account when determining compliance with the emission standards, the Permitee shall develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit it to the Administrator for approval with the site-specific test plan under 40 CFR Section 63.7(f). If the Permittee intends to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere and demonstrate compliance according to 40 CFR Section 63.3370(c(3), (c)(4), (c)(5), or (d), then the protocol must determine the mass of organic HAP retained in the coated web or otherwise not emitted to the atmosphere. Otherwise, compliance must be shown using the volatile organic matter content as a surrogate for the HAP content of the coatings.	40 CFR Section 63.3360(g); Minn. R. 7011.7385
E. COMPLIANCE DEMONSTRATION	hdr
If compliance is demonstrated by use of "as-purchased" compliant coating materials, then the Permittee shall demonstrate that (i) each coating material used does not exceed 0.04 kg organic HAP per kg coating material as purchased, using the procedures in 40 CFR Section 63.3370(b); OR (ii) each coating material does not exceed 0.2 kg organic HAP per kg coating solids as purchased, using the procedures in 40 CFR Section 63.3370(b).	40 CFR Section 63.3370(a)(1); Minn. R. 7011.7385
If compliance is demonstrated by use of "as-applied" compliant coating materials, then the Permittee shall demonstrate that (i) each coating material used does not exceed 0.04 kg organic HAP per kg coating material as applied, using the procedures in 40 CFR Section 63.3370(c)(1). Use either Equation 1a or 1b of 40 CFR Section 63.3370 to determine compliance with 40 CFR Section 63.3320(b)(2), in accordance with 40 CFR Section 63.3370(c)(5)(i). OR (ii) each coating material does not exceed 0.2 kg organic HAP per kg coating solids as applied, using the procedures in 40 CFR Section 63.3370(c)(2). Use Equations 2 and 3 of 40 CFR Section 63.3370 to determine compliance with 40 CFR Section 63.3320(b)(3) in accordance with 40 CFR Section 63.3370(c)(5)(i). OR (continued below)	40 CFR Section 63.3370(a)(2); Minn. R. 7011.7385
(iii) the monthly average of all coating materials used does not exceed 0.04 kg organic HAP per kg coating material as-applied, using the procedures in 40 CFR Section 63.3370(c)(3). Use Equation 4 of 40 CFR Section 63.3370 to determine compliance with 40 CFR Section 63.3320(b)(2) in accordance with 40 CFR Section 63.3370(c)(5)(ii). OR (iv) the monthly average of all coating material used does not exceed 0.2 kg organic HAP per kg coating solids as-applied, using the procedures set out in 40 CFR Section 63.3370(c)(4). Use Equation 5 of 40 CFR Section 63.3370 to determine compliance with 40 CFR Section 63.3320(b)(3) in accordance with 40 CFR Section 63.3370(c)(5)(iii).	40 CFR Section 63.3370(a)(2); Minn. R. 7011.7385 (continued from above)
If the Permittee chooses to demonstrate compliance by tracking total monthly organic HAP applied, then the Permittee shall demonstrate that the total monthly organic HAP applied does not exceed the calculated limit based on emission limitations. Follow the procedures in 40 CFR Section 3.3370(d). Show that the monthly HAP applied (Equation 6 of 40 CFR Section 63.3370) is less than the calculated equivalent allowable organic HAP (Equation 13 a or 13b of 40 CFR Section 63.3370).	40 CFR Section 63.3370(a)(3); Minn. R. 7011.7385 (continued from above)
Semiannual Continuous Compliance Report: due 30 days after end of each calendar half-year following Permit Issuance applicable to each emission unit subject to a standard in 40 CFR Part 63. This may be submitted with the semiannual compliance report required under Part 70 (See Table B of this permit). The report must contain the information listed in 40 CFR Section 63.3400(c)(2).	40 CFR Section 63.3400(c); Minn. R. 7011.7385

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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 014 Boiler 5

MR 015 Boiler 5

MR 016 Boiler 5

MR 017 Boiler 5

MR 018 Boiler 6

MR 019 Boiler 6

MR 020 Boiler 6

MR 021 Boiler 6

SV 003 Boilers 5 & 6, Mechanical Ash Convey

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); Minn. R. 7011.0555
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); MInn. R. 7011.0555
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); MInn. R. 7011.0555
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); MInn. R. 7011.0555
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 GP 003 (EU 003 and EU 004).	Minn. R. 7007.0800, subp. 2
The Permittee shall operate and maintain the control equipment such that it achieves an overall (combined multiclone and ESP) control efficiency for Particulate Matter < 10 micron: greater than or equal to 92 percent control efficiency	Title I Condition: 40 CFR Section 52.21 (netting); Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall (combined multiclone and ESP) control efficiency for Total Particulate Matter: greater than or equal to 90 percent control efficiency	Minn. R. 7009.0020
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due before year starting 12/15/2005 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. If three successive performance tests show results less than 90% of the emission limit, then the testing frequency may be relaxed to once every 3 years.	Minn. R. 7017.2020, subp. 1

Performance Test: due before end of each 36 months starting 12/15/2005 to measure Total Particulate Matter 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
Performance Test: due 1,095 days after Initial Startup of EU 039 (Paper Machine #7), to measure Particulate Matter less than 10 micron emissions. The results will be compared to the emissions calculations used in the netting analysis for PER 009 to ensure that the netting calculations of the future projected actuals and the netting analysis results are correct. The Permittee may combine this performance test with a Total Particulate Matter performance test anytime within the 3 years following startup of EU 039.	40 CFR Section 52.21; Minn. R. 7007.3000
D. CONTROL EQUIPMENT O&M REQUIREMENTS	hdr
The Permittee shall operate and maintain the electrostatic precipitator any time that any process equipment controlled by the electrostatic precipitator is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
Total Secondary Power Input: greater than or equal to 17 kilowatts, 3-hour rolling average, unless a new minimum power input is required set pursuant to Minn. R. 7017.2025, subp. 3. If a new minimum power input is required to be set, it will be based on the average power input recorded during the most recent MPCA approved performance test where compliance for Total Particulate Matter and/or Particulate Matter less than 10 microns emissions was demonstrated. The Permittee shall monitor ESP Transformer/Rectifier secondary power for each field, using the ESP controllers. The average power input is calculated and recorded based on one-minute readings.	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the electrostatic precipitator in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - excessive visible emissions are observed; - any recorded operating parameter is outside the required operating range (e.g. total power input); or - CE 001 or CE 002 or any of their components are found during the inspections to need repair. Corrective actions shall return operation to within the permitted range, eliminate excessive emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the ESPs. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14
Daily Monitoring: The Permittee shall physically verify the operation of the total power input recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment external components. The internal components shall be inspected on at least an annual basis. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
E. COMPLIANCE ASSURANCE MONITORING	hdr
The owner or operator shall conduct the monitoring required under 40 CFR pt. 64 upon permit issuance.	40 CFR Section 64.7(a); Minn. R. 7017.0200
Data Collection: The Permittee shall maintain a continuous hard copy readout or computer disk file of the total secondary power. The total power input shall be calculated at least every minute. The three-hour rolling average power input shall be calculated and recorded based on the one-minute readings.	40 CFR Section 64.3(b); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment and recorders to conduct total power input monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained, including maintaining necessary parts for routine repairs of the monitoring equipment, whenever operation of the monitored control equipment is required.	40 CFR Section 64.7(b); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4
Continuous Operation: Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the owner or operator shall conduct all monitoring in continuous operation at all times the associated emission unit is operating.	40 CFR Section 64.7(c); Minn. R. 7017.0200

Documentation of need for improved monitoring: After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 permit to address the necessary monitoring changes.	40 CFR Section 64.7(e); Minn. R. 7017.0200
Response to excursions or exceedances: Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the emissions unit and/or pollution control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.	40 CFR Section 64.9(d)(1); Minn. R. 7017.0200
The owner or operator shall report exceedances or excursions under 64.7 and 64.8 when the exceedance or excursion are greater than the limit and averaging period. The owner or operator shall submit this report with the Semiannual Deviations Report.	40 CFR Section 64.9(a)(2)(i); Minn. R. 7017.0200
The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained. The owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200
F. 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
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

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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)	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. Each day, calculate the previous 365 days natural gas usage and compare to the limit. Record the results.	Title I Condition: Recordkeeping for limit taken to avoid classification as a major modification under 40 CFR 52.21

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **GP 006 Areas Serviced by Watering Truck**

Associated Items: CE 025 Other

FS 001 Unpaved Roads

FS 006 Paved Roads

What to do	Why to do it
Access areas, roads, parking facilities: All paved roads and areas shall be cleaned to minimize the discharge to the atmosphere of fugitive particulate emissions. Such cleaning shall be accomplished in a manner which minimized resuspension of particulate matter.	Minn. R. 7011.1105(A)
The watering requirements apply upon startup of Paper Machine #7. The Permittee shall water the unpaved roads at the facility. Watering shall comply with the following conditions: a) The water application rate shall be at least 3 gallons for each 100 square feet, every 24 hours; b) A rainfall of at least 0.1 inch during the previous 24 hours shall substitute for one water application; c) If unpaved roads cannot be watered because the ambient air temperature (as measured at the facility during daylight operating hours) is less than 35 degrees F or if conditions due to weather, in combination with the application of water, could create hazardous driving conditions, then watering shall be postponed and accomplished as soon as the conditions preventing water application have abated; d) Water application is not required on days when there is no vehicle traffic; and	Title I Condition: 40 CFR Section 52.21 (netting); Minn. R. 7007.3000
e) Following any day when water is not applied based on the absence of traffic, water shall be applied within 3 hours of commencement of vehicle traffic, unless another criterion for not watering is met.	cont.
Daily Recordkeeping: The Permittee shall keep records of the water applications, including the following: a) The roads watered, the amount of water applied, the time watered, and the method of application. If water was not applied because there was a 0.1 inch rainfall within the previous 24 hours, or because the temperature or other weather conditions would have resulted in unsafe driving conditions, it must be noted in the record along with the source of measurement (i.e. on-site rain gauge or thermometer) and b) Records of watering equipment breakdowns and repairs, and records of contingency efforts undertaken.	Title I Condition: 40 CFR Section 52.21 (netting); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 009 Paper Machine #5**

Associated Items: GP 001 Paper Machines/Pressurized Groundwood Mills

SV 011 Paper Machine 5

SV 012 Paper Machine 5

What to do	Why to do it
Equipment Removal and/or Dismantlement: due 180 days after Initial Startup of EU 039 (Paper Machine #7). This can include any activity to render the paper machine inoperable.	Title I Condition: 40 CFR Section 52.21 (netting); Minn. R. 7007.3000

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 013 Coater/Dryer #5**

Associated Items: GP 002 Coaters/Dryers

What to do	Why to do it
Equipment Removal and/or Dismantlement: due 180 days after Initial Startup of EU 039 (Paper Machine #7). This can include any activity to render the coater/dryer inoperable (e.g. disconnecting fuel lines, etc.).	Title I Condition: 40 CFR Section 52.21 (netting); Minn. R. 7007.3000

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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) - RTO Bypass

SV 041 PGW Grinder Air Lock - RTO Bypass

SV 054 PGW General Chest and Grinder Air Lock

What to do	Why to do it
A. LIMITS	hdr
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 ocurring. Report all excess emissions during a malfunction condition, and take actions to reduce emissions, according to Minn. R. 7019.1000.	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
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.	Title I Condition: 40 CFR Section 52.21 BACT limit; Minn. R. 7007.3000
Production: less than or equal to 750 tons/day using 365-day Rolling Average ; the PGW production is limited to 750 bone-dry tons pulp per day. This limit becomes effective 180 days after Initial Startup of Paper Machine 7 (EU 039).	Minn. Stat. Section 116.07, subp. 4a
Production: less than or equal to 217150 tons/year using 365-day Rolling Sum ; the PGW production is limited to 217150 bone-dry tons pulp per year. This limit becomes effective 180 days after Initial Startup of Paper Machine 7 (EU 039).	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
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 demostrated. 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 acheived. This shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21 monitoring requirement in support of BACT limit; Minn. R. 7007.3000
The Permittee shall operate and maintain the thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Corrective Action: If the 3-hour rolling average combustion chamber temperature falls below the minimum required value, take corrective action, as outlined in the facilitiy Operation and Maintenance Plan, to restore the temperature to the minimum required value. Make a record of all temperautre deviations and corrective actions taken.	Title I Condition: 40 CFR Section 52.21 monitoring requirement in support of BACT limit; Minn. R. 7007.3000
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.	Minn. R. 7007.0800, subp. 4
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.	Minn. R. 7007.0800, subp. 4
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.	Title I Condition: Monitoring for BACT Limit (40 CFR Section 52.21); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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.	Minn. R. 7007.0800, subp. 4
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.	Minn. R. 7007.0800, subps. 2, 5, 14
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.	Minn. R. 7007.0800, subps. 2, 5, 14
C. PERFORMANCE TESTING	hdr
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.	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
D. RECORDKEEPING	hdr
Daily Recordkeeping. On each day of operation, the Permittee shall calculate, record, and maintain the total production of bone dry pulp from the PGW (EU 015). The 365-day rolling average (tons/day) and 365-day rolling sum (tons/year) production shall be calculated for the previous 365 day period.	Minn. Stat. Section 116.07, subp. 4a
E. COMPLIANCE ASSURANCE MONITORING	hdr
The owner or operator shall comply with the approved monitoring for combustion chamber temperature, as described under EU 015 and EU 034.	40 CFR Section 64.3(b) or (d); Minn. R. 7017.2000
The owner or operator shall conduct the monitoring required under 40 CFR pt. 64 upon permit issuance.	40 CFR Section 64.7(a); Minn. R. 7017.0200
Data Collection: The Permittee shall maintain a continuous hard copy readout or computer disk file of the combustion chamber temperature. The temperature shall be recorded at least once every 15 minutes. The hourly average temperature shall be calculated and recorded based on the four 15-minute readings.	40 CFR Section 64.3(b); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment and recorders to conduct combustion chamber temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained, including maintaining necessary parts for routine repairs of the monitoring equipment, whenever operation of the monitored control equipment is required.	40 CFR Section 64.7(b); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4
Continuous Operation: Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the owner or operator shall conduct all monitoring in continuous operation at all times the associated emission unit is operating.	40 CFR Section 64.7(c); Minn. R. 7017.0200
Documentation of need for improved monitoring: After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 permit to address the necessary monitoring changes.	40 CFR Section 64.7(e); Minn. R. 7017.0200
Response to excursions or exceedances: Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the emissions unit and/or pollution control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.	40 CFR Section 64.9(d)(1); Minn. R. 7017.0200
The owner or operator shall report exceedances or excursions under 64.7 and 64.8 when the exceedance or excursion are greater than the limit and averaging period. The owner or operator shall submit this report with the Semiannual Deviations Report.	40 CFR Section 64.9(a)(2)(i); Minn. R. 7017.0200
The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained. The owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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 022 Boiler 7

MR 023 Boiler 7

SV 036 Boiler 7

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
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 does not apply during times when only the center-fired burner is operating, but does apply at all other times including periods of startup, shutdown and malfunction of the main burner. Hours when only the center-fired burner is operating may be excluded in the calculation of the 365-day rolling average.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.
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 and during periods when only the center-fired burner is operating.	Title I Condition: 40 CFR Section 60.44b(I); Minn. R. 7011.0565
Carbon Monoxide: less than or equal to 11.2 lbs/hour . This standard applies at all times including periods of startup, shutdown and malfunction.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.
B. REPORTING & RECORDKEEPING REQUIREMENTS	hdr
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).	40 CFR Section 60.49b(d)&(g); Minn. R. 7011.0565
C. PERFORMANCE TESTING REQUIREMENTS	hdr
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. The Permittee received a 120 day extension of this deadline for the test due in 2007.	Title I Condition: Minn. R. 7017.2020, subp. 1
D. CONTINUOUS EMISSION MONITORING REQUIREMENTS	hdr
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.	Title I Condition: 40 CFR Section 60.48b(b); Minn. R. 7011.0565;Minn. R. 7017.1006
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.	40 CFR Section 60.48b(c)-(e); Minn. R. 7011.0565; 40 CFR Section 60.13(e); Minn. R. 7017.1090, subp. 1
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
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

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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)

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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 024 Boiler 8

MR 025 Boiler 8

SV 037 Boiler 8

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
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 does not apply during times when only the center-fired burner is operating, but does apply at all other times including periods of startup, shutdown and malfunction of the main burner. Hours when only the center-fired burner is operating may be excluded in the calculation of the 365-day rolling average.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.
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 and during periods when only the center-fired burner is operating.	Title I Condition: 40 CFR Section 60.44b(I); Minn. R. 7011.0565.
Carbon Monoxide: less than or equal to 11.2 lbs/hour . This standard applies at all times including periods of startup, shutdown and malfunction.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000. To avoid classification as a major modification under NSR.
B. REPORTING & RECORDKEEPING REQUIREMENTS	hdr
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).	40 CFR Section 60.49b(d)&(g)); Minn. R. 7011.0565.
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due before end of each 60 months starting 02/19/2002 of EU017 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. The Permittee received a 120 day extension of this deadline for the test due in 2007.	Title I Condition: Minn. R. 7017.2020, subp. 1
D. CONTINUOUS EMISSION MONITORING REQUIREMENTS	hdr
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.	Title I Condition: 40 CFR Section 60.48b(b)); Minn. R. 7011.0565; Minn. R. 7017.1006
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.	40 CFR Section 60.48b(c)-(e); Minn. R. 7011.0565; 40 CFR Section 60.13(e); Minn. R. 7017.1090, subp. 1
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
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

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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)

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 033 Boiler 9**

Associated Items: CE 019 Flue Gas Recirculation

MR 026 Nox Monitor

SV 063 Boiler 9

What to do	Why to do it
Initial Startup of EU 033 (Boiler 9): Initial startup of Boiler 9 shall occur no more than 15 days prior to Equipment Removal and/or Dismantlement of EU 009 (Paper Machine #5).	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000
EMISSION AND OPERATING LIMITS	hdr
Nitrogen Oxides: less than or equal to 0.035 lbs/million Btu heat input using 24-hour Rolling Average . This standard does not apply during times when only the center-fired burner is operating, but does apply at all other times including periods of startup, shutdown and malfunction of the main burner. Hours when only the center-fired burner is operating may be excluded in the calculation of the 24-hr rolling average.	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
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 and during periods when only the center-fired burner is operating.	Title I Condition: 40 CFR Section 60.44b(I); Minn. R. 7011.0565
Fuel shall have potential emission rate of Sulfur Dioxide: less than or equal to 0.32 lbs/million Btu heat input	40 CFR Section 60.42b(k)(1); 40 CFR 60.43b(h)(5); Minn. R. 7011.0565
Fuel Usage: less than or equal to 1215 million cubic feet/year using 365-day Rolling Sum	Title I Condition: 40 CFR Section 52.21 (BACT limit); Minn. R. 7007.3000
The boiler is limited, by equipment design, to burning only natural gas.	Minn. R. 7005.0100, subp. 35a
MONITORING REQUIREMENTS (see also Subject Item MR026)	hdr
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.	Title I Condition: 40 CFR Section 60.48b(b); Minn. R. 7011.0565;Minn. R. 7017.1006
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
REPORTING & RECORDKEEPING REQUIREMENTS	hdr
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). Each day, the permittee shall calculate the previous 365-day natural gas usage and compare to the limit. Record the results.	40 CFR Section 60.49b(d)&(g); Minn. R. 7011.0565
The Permittee shall maintain fuel supplier certifications of the sulfur content of the fuel to demonstrate that the fuel has potential Sulfur Dioxide emission rates less than 0.32 lb/MMBtu heat input.	40 CFR Section 60.46b(b)(i); Minn. R. 7011.0565
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); Minn. R. 7019.0100, subp. 1

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 034 Thermomechanical Pulp Mill (fugitives)**

Associated Items: CE 020 Direct Flame Afterburner w/Heat Exchanger

GP 001 Paper Machines/Pressurized Groundwood Mills

SV 064 TMP RTO Stack

SV 065 Thermomechanical Pulp Mill

What to do	Why to do it
A. LIMITS	hdr
Required Control Equipment: The Permittee shall operate and maintain a Regenerative Thermal Oxidizer (RTO) to control emissions from the Chip Washing, Chip Impregnation, Primary Heat Recovery Vent, and Main Heat Recovery Vent (SV 064) anytime the TMP grinders are grinding wood, and/or screening and cleaning operations are ocurring. Report all excess emissions during a malfunction condition, and take actions to reduce emissions, according to Minn. R. 7019.1000.	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
Volatile Organic Compounds: greater than or equal to 95 percent destruction efficiency or less than or equal to 0.021 lb VOC (as C)/ton of bone-dry pulp from the Chip Washing, Chip Impregnation, Primary Heat Recovery Vent, and Main Heat Recovery Vent (SV 064). The Permittee shall operate and maintain the RTO such that it continuously achieves these limits.	Title I Condition: 40 CFR Section 52.21 BACT limit; Minn. R. 7007.3000
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
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 for VOC emissions was demostrated. 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 acheived. This shall be reported as a deviation.	Title I Condition: 40 CFR Section 52.21 monitoring requirement in support of BACT limit; Minn. R. 7007.3000
The Permittee shall operate and maintain the thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: 40 CFR Section 52.21; Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the thermal oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14
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.	Minn. R. 7007.0800, subp. 4
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.	Minn. R. 7007.0800, subp. 4 and 5
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.	Title I Condition: Monitoring for BACT Limit (40 CFR Section 52.21); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 and 5
Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 and 5
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.	Minn. R. 7007.0800, subps. 4, 5, 14

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.	Minn. R. 7007.0800, subps. 4, 5, 14
C. PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup 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.	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
Performance Test: due before end of each 36 months following Initial Performance Test. 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.	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
D. COMPLIANCE ASSURANCE MONITORING	hdr
The owner or operator shall comply with the approved monitoring for combustion chamber temperature.	40 CFR Section 64.3(b) or (d); Minn. R. 7017.2000
The owner or operator shall conduct the monitoring required under 40 CFR pt. 64 upon permit issuance.	40 CFR Section 64.7(a); Minn. R. 7017.0200
Data Collection: The Permittee shall maintain a continuous hard copy readout or computer disk file of the combustion chamber temperature. The temperature shall be recordeded at least once every 15 minutes. The hourly average temperature shall be calculated and recorded based on the four 15-minute readings.	40 CFR Section 64.3(b); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment and recorders to conduct combustion chamber temperature monitoring required by this permit. The monitoring equipment must be installed, in use, and properly maintained, including maintaining necessary parts for routine repairs of the monitoring equipment, whenever operation of the monitored control equipment is required.	40 CFR Section 64.7(b); Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4
Continuous Operation: Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the owner or operator shall conduct all monitoring in continuous operation at all times the associated emission unit is operating.	40 CFR Section 64.7(c); Minn. R. 7017.0200
Documentation of need for improved monitoring: After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 permit to address the necessary monitoring changes.	40 CFR Section 64.7(e); Minn. R. 7017.0200
Response to excursions or exceedances: Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the emissions unit and/or pollution control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.	40 CFR Section 64.9(d)(1); Minn. R. 7017.0200
The owner or operator shall report exceedances or excursions under 64.7 and 64.8 when the exceedance or excursion are greater than the limit and averaging period. The owner or operator shall submit this report with the Semiannual Deviations Report.	40 CFR Section 64.9(a)(2)(i); Minn. R. 7017.0200
The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained. The owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.	40 CFR Section 64.9(b); Minn. R. 7017.0200

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 035 Wood Chip Handling Silo**

Associated Items: CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 066 Wood Chip Handling Silo

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0710, 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.	Minn. R. 7011.0710, subp. 1(B)
Visible Emissions: The Permittee shall check the fabric filter stack (SV 066) for any visible emissions once each week of operation during daylight hours.	Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 036 Wood Chip Handling Silo**

Associated Items: CE 022 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 067 Wood Chip Handling Silo

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0710, 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.	Minn. R. 7011.0710, subp. 1(B)
Visible Emissions: The Permittee shall check the fabric filter stack (SV 067) for any visible emissions once each week of operation during daylight hours.	Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 037 Clay Unload & Convey**

Associated Items: CE 023 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 068 Clay Unload & Convey

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0710, 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.	Minn. R. 7011.0710, subp. 1(B)
Visible Emissions: The Permittee shall check the fabric filter stack (SV 068) for any visible emissions once each week of operation during daylight hours.	Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **EU 038 Starch Convey & Store**

Associated Items: CE 024 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 069 Starch Convey & Store

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0710, 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.	Minn. R. 7011.0710, subp. 1(B)
Visible Emissions: The Permittee shall check the fabric filter stack (SV 069) for any visible emissions once each week of operation during daylight hours.	Minn. R. 7007.0800, subp. 4 and 5
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation. The Permittee shall document periods of non-operation of the control equipment.	Minn. R. 7007.0800, subp. 2 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

Subject Item: **MR 026 Nox Monitor**

Associated Items: EU 033 Boiler 9

What to do	Why to do it
Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.	Minn. R. 7017.1040, subp. 1
CEMS Monitor Design: Each CEMS shall be designed to complete a minimum of one cycle of sampling, analyzing, and data recording in each 15-minute period.	40 CFR Section 60.13(e)(2)
CEM Certification Test: due 180 days after Initial Startup of MR026 or within 90 days after the due date of the first excess emissions report, whichever is more stringent.	40 CFR Section 40 CFR Section 60.8(a); 40 CFR Section 60.13(b); Minn. R. 7017.1050, subp. 1
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 Pretest Meeting: due 7 days before CEMS Certification Test.	Minn. R. 7017.1060, subp. 3
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 or CD Copy: due 105 days after CEMS Certification Test.	Minn. R. 7017.1080, 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. 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.	40 CFR Section 60.48b(c)-(e); Minn. R. 7011.0565; 40 CFR Section 60.13(e); Minn. R. 7017.1090, subp. 1
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 QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in 40 CFR pt. 60, Appendix B and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended and maintain a written QA/QC program available in a form suitable for inspection.	40 CFR pt. 60, Appendix F; 40 CFR Section 60.13(a)
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
Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEMS certification test. A CGA is not required during any calendar quarter in which a RATA was performed.	40 CFR Part 60, Appendix F, Section 5.1.2; Minn. R. 7017.1170, subp. 4
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS 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
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)
Monitoring Data: Reduce all NOx data to 1-hour averages, in accordance with 40 CFR Section 60.13(h). 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.	40 CFR Section 60.13(h) regarding continuous monitoring systems other than COMS.

TABLE B: SUBMITTALS

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

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.

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

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 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 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.

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before 06/14/2004. An application for permit reissuance was submitted on 12/15/03.	Total Facility
Monitoring Plan	due 30 days after Complete construction and commence operation of TMP (EU 034). Submit monitoring plan for Post Construction Noise Monitoring Plan. The Permittee shall perform noise monitoring to demonstrate compliance with the MPCA noise rules Ch. 7030. The Plan shall specify how, when, and at what locations the monitoring will be conducted. The Plan shall be submitted to the MPCA for approval and once approved, the Plan shall be considered an enforceable part of the permit. This is a state only requirement and is not federally enforceable or enforceable by citizens under the Act.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU033
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of MR026.	MR026
Notification of the Date Construction Began	due 30 days after Start Of Construction of EU 033 (Boiler #9). Submit the name and number of the unit and the date construction of the unit began.	EU033
Notification	due 15 days after Initial Startup of Paper Machine #7 (EU 039). Notification shall include date of permanent shutdown of Paper Machine #5 (EU 009) and of Coater/Dryer #5 (EU 013).	EU039
Notification	due 180 days after Equipment Removal and/or Dismantlement of EU 009. This notice shall specify the last date of operation of Coater/Dryer #5, as well as the date the coater/dryer was removed/dismantled.	EU013
Notification	due 180 days after Equipment Removal and/or Dismantlement of EU 009. This notice shall specify the last date of operation of Paper Machine #5, as well as the date the paper machine was removed/dismantled.	EU009
Submittal	due 30 days after Initial Startup of EU033, submit a 112(j) determination for the boiler.	EU033

TABLE B: RECURRENT SUBMITTALS

Facility Name: Blandin Paper/Rapids Energy Center

Permit Number: 06100001 - 011

What to send	When to send	Portion of Facility Affected
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following Permit Issuance (if a CGA was performed during that calendar quarter)	MR026
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
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.	Total Facility
Relative Accuracy Test Audit (RATA) Results Summary	due 45 days after end of each calendar quarter following Permit Issuance (if a RATA was performed during that calendar quarter)	MR026
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

APPENDIX B: Insignificant Activities List
Facility Name: Blandin Paper/Rapids Energy Center
Permit Number: 06100001-011

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
MAIN MILL					
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
NO. 5 PAPER MACHING BUILDING					
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
COATING PREP					
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
FACILITY NUMBER	**LOCATION**	**CONTENTS**	**SIZE (GAL)**	**SECONDARY CONTAINMENT**	**COLOR**
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 tem 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

APPENDIX C: Modeling Parameters
Facility Name: Blandin Paper/Rapids Energy Center
Permit Number: 06100001-011

Blandin/Rapids Energy Center Point Source Modeling Parameters

Source ID	Source Description	NO_X Emis. Rate (g/s)	SO_2 Emis. Rate (g/s)	Location UTM NAD83		Base Elev (m)	Stack Height (m)	Stack Temp (K)	Stack Exit Vel. (m/s)	Stack Diam. (m)
				Easting (m)	Northing (m)					
BPC003	Boilers 5 & 6	47.627	74.9028	459328.3	5231365	393	62.48	519.3	22.91	2.74
BPC027	Coater/Dryer 6	0.2058	0.0012	459699.4	5231417	393	27.25	365.4	21.28	0.64
BPC028	Coater/Dryer 6	0.2058	0.0012	459700.4	5231417	393	27.25	365.4	21.28	0.64
BPC029	Coater/Dryer 6	0.2058	0.0012	459701.4	5231417	393	27.25	365.4	21.28	0.64
BPC030	Coater/Dryer 6	0.2058	0.0012	459702.4	5231417	393	27.25	365.4	21.28	0.64
BPC031	Coater/Dryer 6	0.2058	0.0012	459703.4	5231417	393	27.25	365.4	21.28	0.64
BPC032	Coater/Dryer 6	0.2058	0.0012	459704.4	5231417	393	27.25	365.4	21.28	0.64
BPC033	Coater/Dryer 6	0.1428	0.0009	459705	5231416	393	27.25	355.4	68.63	0.89
BPC034	Coater/Dryer 6	0.093	0.0006	459699.9	5231416	393	27.25	355.4	53.44	0.81
BPC036	Boiler 7	1.0964	0.0211	459415	5231374	393	30.48	427.8	16.32	1.83
BPC037	Boiler 8	1.0964	0.0211	459415	5231378	393	30.48	427.8	16.32	1.83
BPC054	PGW RTO	0.0498	0.0003	459418.4	5231266	393	27.44	394.26	7.275	0.81
BPC062	Fire Pump	0.0662	0.0769	459802.6	5231152	391	20.7	464	0.001	0.27
BPC063	Boiler 9	0.6249	0.0208	459415	5231382	393	30.48	427.8	16.32	1.83
BPC064	TMP RTO	0.0624	0.0004	459515.4	5231223	393	27.44	394.26	7.28	0.81
BPCOB	Office Boiler	0.0239	0.0001	459788.5	5231017	393	7.01	294.26	0.001	0.4
BPCIA01	Modien Recirc – Bldg 5	0.005	0.00003	459582.9	5231347	393	24.01	294.26	13.67	0.21
BPCIA02	Modien Recirc – Bldg 5	0.005	0.00003	459596	5231347	393	24.01	294.26	13.67	0.21
BPCIA03	Modien Recirc – Bldg 5	0.005	0.00003	459582.9	5231334	393	24.01	294.26	13.67	0.21
BPCIA04	Modien Recirc – Bldg 5	0.005	0.00003	459596	5231334	393	24.01	294.26	13.67	0.21
BPCIA05	Modien Recirc – Bldg 5	0.005	0.00003	459618.1	5231324	393	24.01	294.26	13.67	0.21
BPCIA06	Modien Recirc – Kraft	0.005	0.00003	459657	5231263	393	10.67	294.26	13.67	0.21
BPCIA07	Modien Recirc – Kraft	0.005	0.00003	459669	5231263	393	10.67	294.26	13.67	0.21
BPCIA08	Modien Recirc – Kraft	0.005	0.00003	459681.1	5231263	393	10.67	294.26	13.67	0.21
BPCIA09	Modien Recirc – Kraft	0.005	0.00003	459693.1	5231263	393	10.67	294.26	13.67	0.21
BPCIA010	Modien Recirc – Kraft	0.005	0.00003	459705.2	5231263	393	10.67	294.26	13.67	0.21
BPCIA011	Modien Recirc – Kraft	0.005	0.00003	459717.2	5231263	393	10.67	294.26	13.67	0.21
BPCIA012	Modien Recirc – Kraft	0.005	0.00003	459729.3	5231263	393	10.67	294.26	13.67	0.21
BPCIA013	Modien Recirc – Kraft	0.005	0.00003	459740.3	5231263	393	10.67	294.26	13.67	0.21
BPCIA014	Modien Recirc – Kraft	0.005	0.00003	459753.4	5231263	393	10.67	294.26	13.67	0.21

Blandin/Rapids Energy Center Volume Source Model Parameters

Source ID	Source Description	NO_X Emis. Rate (g/s)	SO_2 Emis. Rate (g/s)	Location UTM NAD83		Base Elev (m)	Release Height (m)	Initial Lateral Dimension (m)	Initial Vertical Dimension (m)
				Easting (m)	Northing (m)				
BPCIA15	Coater & Shop Bldg 5	0.2123	0.0013	459722.5	5231349	391	23.16	0.23	10.77
BPCIA16	Space Heating (1)	0.0375	0.0002	459662.1	5231196	393	24.8	0.23	11.53
BPCIA17	Space Heating (2)	0.0375	0.0002	459712.1	5231196	393	24.8	0.23	11.53
BPCIA18	Space Heating (3)	0.0375	0.0002	459762.1	5231196	393	24.8	0.23	11.53
BPCIA19	Space Heating (4)	0.0375	0.0002	459812.1	5231196	393	24.8	0.23	11.53

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 06100001-011

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1 Applicant and Stationary Source Location:

Owner & Operator Address	**Facility Address** **(SIC Code: 2611/2621)**
Blandin Paper Company/Minnesota Power 115 1st Street Southwest Grand Rapids, MN 55744 Rapids Energy Center/Minnesota Power 502 3rd Street NW Grand Rapids, MN 55744	Blandin Paper Company/ Minnesota Power-Rapids Energy Center 115 1st Street Southwest Grand Rapids, MN 55744 Itasca County
Facility Contact: Nathan Waech - (218) 327-6269	

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, Minnesota. Blandin operates the pulp and paper mill while Minnesota Power operates the steam and electricity production facility at the Blandin site, using its own employees and selling 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.

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 currently consist of four boilers (2 natural gas-fired units and 2 wood/coal-fired units), a PGW mill, two paper machines, and two 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 subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) program and the Maximum Achievable Control Technology (MACT) standard Subpart JJJJ (Paper and Other Web Coating).

The paper machines and coater/dryers are uncontrolled sources. The main power boilers (the wood/coal-fired units) are controlled by high efficiency electrostatic precipitators. The natural gas fired boilers are controlled by flue gas recirculation. The PGW is controlled by a thermal oxidizer.

1.3 Description of the Activities Allowed by this Permit Action

Blandin plans a modification to increase paper production. They intend to add a Thermomechanical Pulp (TMP) mill (EU034) to produce additional pulp. The existing PGW (EU015) will be modified and will continue to operate. As part of the project, PM5 (EU009) and its coater/dryer (EU013) will be shutdown and a new paper machine (PM7, EU039) will be added. There will be increased demand for energy. There will be heat recovery from the TMP which will be used to provide much of the increased steam demand. In addition, a natural gas-fired boiler (EU033) will be added as a back-up for the times when the TMP is down, but both paper machines are operating. These changes were dubbed "Project Thunderhawk" and were authorized through Permit 06100001-009.

The purpose of this permit action is to extend the authorization to construct the modification first authorized under Air Emission Permit No. 06100001-009. The project (to increase paper production) was first applied for on August 23, 2005, with the application updated on April 7, 2006. The project was permitted in conjunction with the reissuance of the facility's Part 70 operating permit on August 31, 2006. The project is subject to New Source Review and construction is regulated under 40 CFR § 52.21. Under 40 CFR § 52.21(r)(2), "Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Administrator may extend the 18-month period upon a satisfactory showing that an extension is justified." Construction of the project has not begun. Blandin applied for an extension of the 18 month construction deadline, in an application received on August 16, 2007. This permit action will reauthorize construction; construction authorization again ends 18 months after permit issuance, if it has not yet begun. (The Permittee requested authorization to be extended to August 31, 2009, which was determined from the original permit issuance date of August 31, 2006, plus 36 months – the original 18 months authorized on August 31, 2006, plus another 18 months for the extension).

The permit application is an update of the original PSD permit application submitted August 23, 2005 and updated April 7, 2006. There are no changes authorized to Project Thunderhawk as currently permitted. The Best Available Control Technology (BACT) analysis was reviewed to identify any new determinations in the RACT/BACT/LAER Clearinghouse (RBLC) (new since the project was first permitted) that would affect the project, and to update pollution control cost estimates. There were no new determinations added to the RBLC that would change the BACT analysis for Project Thunderhawk. As BACT is unchanged and there are no changes to the project as originally proposed/permitted with respect to equipment, sizing, etc., there are no changes to the emission calculations or air dispersion modeling. Thus, the conclusions of the original application as updated remain unchanged.

The Permittee performed a netting analysis and determined that the project required a major amendment under PSD; the netting analysis showed that the emissions of NO_x, Sulfur Dioxide (SO_2), and Volatile Organic Compounds (VOC) are above the PSD significant thresholds. BACT controls resulting from the PSD analysis are a thermal oxidizer to control VOCs from the TMP and flue gas recirculation for NO_x control for the new boiler. The netting analysis is not being readdressed for this permit action, since the original conclusions are unchanged and only the construction deadline is being extended.

Blandin completed an Environmental Impact Statement. An Air Emissions Risk Analysis (AERA) was not required for the project. The EIS is not being readdressed, since this permit action is only for extension of the construction deadline for the project as originally permitted.

In addition to the extension of construction authorization, the following changes were made:

- Requirements associated with 40 CFR Part 63, Subpart DDDDD, were removed from EU033. The standards was vacated, and the unit is not a major HAP source by itself, so the Permittee will instead be required to submit a request for case-by-case determination of the standard under Section 112(j) of the Clean Air Act (due 30 days after startup of the boiler).

- The permit acknowledges a 120-day extension to the testing deadlines on Boilers 7 and 8 (EU016 and EU017) for the tests due in 2007. This change was requested in the application for administrative amendment received on February 6, 2007.
- Requirements associated with Subpart DDDDD were also removed from GP003, EU016, and EU017. These are existing units required to submit information for a case-by-case MACT determination under Section 112(j) of the Clean Air Act. The information requested by the MPCA has been submitted and action will be taken at a later date.

1.4 Facility Emissions:

There are no changes to the emission increases from what was calculated for Permit 06100001-009.

Table 1. Title I Emissions Increase Summary

(These are the Emissions Increases as described in the original permit. Decreases are 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)	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	40.96	-56.97	-16.0	25	No
PM_{10}	22.78	-30.02	-7.24	15	No
NO_x	301.1	-132.0	170	40	Yes
SO_2	213.3	-0.03	213	40	Yes
CO	209.5	-216.6	-7.05	100	No
Ozone (VOC)	225.9	-83.78	142	40	Yes
Lead	0.094	-0.079	0.016	0.6	No
H_2SO_4	4.23	-1.34	2.90	7	No
Fluorides	1.48	-0.85	0.63	3	No

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

Table 2. Total Facility Potential to Emit Summary

(after Project Thunderhawk modification is complete)

	PM tpy	PM_{10} tpy	SO_2 tpy	NO_x tpy	CO tpy	VOC tpy	Total HAP tpy
Total Facility Limited Potential Emissions after Modification[(a)]	316	279	2600	1810	4120	416	270
Actual Emissions (2006 Emissions Inventory)	42	40	66	546	703	159	(b)

(a) Numbers may not appear to add properly due to rounding
(b) HAPs not reported on emissions inventory

Table 3. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	PM, PM_{10}, NO_x, VOC, CO, SO_2		
Part 70 Permit Program	PM_{10}, NO_x, VOC, CO, SO_2, HAP		
Part 63 NESHAP	X		

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review. Project Thunderhawk has a significant net emissions increase under the New Source Review program for sulfur dioxide SO_2, NO_x, and VOC. A BACT analysis was performed for the project, as was an Additional Impact Analysis and air dispersion modeling for NO_x and SO_2. These analyses were done when the project was originally permitted (permit 06100001-009); no changes to the original determination are made at this time. The purpose of this permit action is to extend the construction authorization by 18 months, as allowed under 40 CFR § 52.21(r)(2).

The Permittee also worked with the U.S. Environmental Protection Agency to complete an Endangered Species assessment. That results of that assessment are included as Attachment C.

Part 70 Permit Program

This facility is an existing major source under the Part 70 Permit Program; the permit amendment is a major permit amendment.

New Source Performance Standards (NSPS)

The proposed new natural gas-fired boiler is subject to NSPS Subpart Db.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The new natural gas-fired boiler was subject to Subpart DDDDD at the time of original permitting, and the requirements for that standard were incorporated into the permit. However, Subpart DDDDD was vacated by the U.S. District Court of Appeals for the DC Circuit on July 30, 2007. Since the boiler is a non-major HAP source, the Permittee will be required to submit a case-by-case MACT determination under Section 112(j) of the Clean Air Act, within 30 days of startup of the new boiler.

Compliance Assurance Monitoring

Compliance Assurance Monitoring (CAM) requirements were implemented in the permit at reissuance. Since this permit action does not change any new or revised equipment authorization, no additional CAM analysis is required.

Minnesota State Rules

Some of the new equipment being added to the facility, i.e. material handling equipment, will be subject to Minnesota Standards of Performance for Post 1969 Industrial Process Equipment (Minn. R. 7011.0715). The new boiler will be subject to Minnesota Standards of Performance for New Indirect Heating Equipment (Minn. R. 7011.0515).

The following table is a summary of applicable NSR requirements applicable to the equipment and processes associated with the construction authorization.

Table 4. Overview of Requirements Associated with Extension of Construction Authorization

EU, GP, or SV	Applicable Regulations	Comments:
Total Facility	40 CFR § 52.21	Title I Conditions: maintain modeling parameters; modeling was performed as part of the PSD application, as well as performed in accordance with MPCA policy.
GP006 (Areas serviced by watering truck)	40 CFR § 52.21 (netting)	Requirements for watering facility roads are included in the permit to minimize fugitive emissions; control was assumed in netting calculations.
EU033 (Boiler 9)	40 CFR § 52.21 (BACT)	Title I Condition: BACT limit for NOx
EU034 (TMP)	40 CFR § 52.21 (BACT)	Title I Condition: VOC overall control efficiency; RTO to be used for control, continuous temperature monitoring required.

3. Technical Information

3.1 Emissions Calculations

Emission calculations are attached to this technical support document. Netting was done to determine PSD applicability for the modification. The modification was determined to be major for NO_x, SO_2 and VOC (see Table 1 above for summary of calculations). Part of the analysis was performed using the Actual to Projected Actual emissions calculations as allowed in the New Source Review (NSR) Reform rules, in particular the analysis of emissions due to changes in steam requirements for the facility. Emission reductions due to shutdown of Paper Machine 5 (PM5), the associated coater/dryer, and corresponding reduction in steam requirements were used in the netting analysis. Therefore, the shutdown of PM5 must occur prior to startup of emission units which will have increases in the pollutants which netted out of PSD review, i.e. PM, PM_{10} and CO; thus the new boiler can not start up until PM5 is removed and/or dismantled. However, the TMP and new paper machine, both of which primarily only have VOCs as pollutants, are allowed to have a 180 day overlap with operation of PM5, to allow for a shakedown period, because they do not emit pollutant for which the facility netted out of PSD review; the PSD analysis included VOCs, and thus the reduction in VOCs is not needed prior to startup of the new units. Also, since calculations were performed using the Actual to Projected Actual method for PM_{10} emissions, an annual review of calculations to check the netting analysis should be done. The review need only consider the PM_{10} emissions, and should be done to verify that the project should not have been subject to PSD review for PM_{10}.

3.2 Environmental Review

When the project was first permitted, calculations were provided in the technical support document to evaluate whether the project would have been over the environmental review threshold for air emissions increases due to the project. This calculation review compared maximum emissions, on an annual basis, before and after the project. The emissions increases calculated in this manner were below 100 tons per year for each pollutant, which was the threshold at the time for requiring and EAW. The rules have since changed, and now emissions increases over 250 tpy (rather than 100 tpy) would require an EAW, and under MPCA policy, would undergo an air emissions risk analysis (AERA). An EAW and AERA are not required for the project.

The project did require an environmental review due to the increase in timber harvesting. The Permittee, in consultation with Minnesota Department of Natural Resources (DNR) and the MPCA, elected to conduct an Environmental Impact Statement and DNR was designated as the Responsible Governmental Unit (RGU) for the project. The EIS was placed on public notice on January 30, 2006, and a public meeting was held in Grand Rapids on February 21, 2006. The comment period for the DEIS ended on March 7, 2006.

3.3 PSD Analysis

The PSD analysis was completed for the proposed project through Air Emission Permit No. 06100001-009, issued on August 31, 2006. The scope of the project has not changed. The RACT/BACT/LAER Clearinghouse (RBLC) was reviewed for further entries since the original BACT determination was made. There have been no entries that change the determination of BACT.

An update to the PSD analysis from the technical support document for Permit 06100001-009 follows. It has been updated to reflect more current cost estimates. Attachment D includes the BACT summary from Permit 06100001-009, and the updated RBLC summaries as provided by the Permittee, and supplemented by the MPCA (data since July 6, 2007).

3.3.1 Applicability Analysis

Emissions increases were determined for the original analysis by comparing the baseline actual emissions to the future potential emissions. Facilities may use any consecutive 24-month period in the past 10 years to determine baseline actual emissions. Blandin chose the period of 2001/2002 as its baseline period; that time period remains a valid choice at this time, since it is still within the past 10 years. Blandin also performed a netting analysis, by considering all creditable and contemporaneous increases and decreases in addition to the project increases. The net emissions changes for each pollutant were then compared to the associated threshold to determine PSD applicability for that pollutant.

On May 8, 2008, EPA issued final rules governing the implementation of NSR for particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$). The rules become effective on July 15, 2008. The rules set a significant emissions increase threshold for $PM_{2.5}$ at 10 tpy. Since the rules were not in effect at the time Project Thunderhawk was first analyzed, and the application for extension of the construction deadline is complete prior to July 15, 2008, analysis of $PM_{2.5}$ is not required. However, since the project results in a net decrease in PM_{10}, it seems likely that there would also be a net decrease in $PM_{2.5}$, and the project would not be subject to PSD for $PM_{2.5}$.

Table 1 of this document shows that emissions from NO_x, VOC and SO_2 are over the thresholds and subject to further PSD review.

3.3.2 BACT Analysis

The calculations showed that the project is subject to PSD for NO_x, VOC and SO_2. Therefore, a BACT analysis was required and completed for Permit 06100001-009, issued on August 31, 2006. The existing boilers 5 and 6 and coater/dryer no. 6 are not modified and thus are not subject to the BACT analysis. The emission units and associated PSD pollutants evaluated in the BACT analysis are:

Pulp and Paper Sources
- EU015 - Existing PGW (VOC)
- EU034 - New TMP (VOC)
- EU039/PM7 - New No. 7 paper machine (VOC)
- EU010/PM6 - Existing No. 6 paper machine (VOC)

Combustion Sources
- EU033 - New No. 9 natural gas-fired boiler (VOC, NO_x, SO_2)
- New natural gas space heating (VOC, NO_x, SO_2)

Pulp and Paper Sources

The technologies that were considered for VOC control for the pulp and paper sources were incineration (thermal oxidizers, catalytic oxidizers, recuperative oxidizers, and regenerative thermal oxidizers [RTO]), carbon adsorption, condensation, and biofiltration. All of the incineration technologies were considered technically feasible, as was condensation. Carbon adsorption was not considered a technically feasible control option due to the concerns of particulates and other contaminants in the airstream causing plugging or fouling of the activated carbon. Biofiltration was also not considered technically feasible. Biofiltration requires significant land area, which is not available at the facility. Also, there has been limited use of biofiltration, and thus there is uncertainty in the degree and consistency of VOC control.

EU015 is currently controlled, with 83 percent combined capture and control of the exhaust; this is considered baseline. EU015 was evaluated for control of 100 percent of the PGW exhaust. All the control options analyzed under the 100 percent control scenario were considered to not be cost effective; the minimum incremental control cost to go from the current operation of 83% combined capture/control to 100% control is $ 14,075/ton. The current operation was determined to be BACT. In addition, a production limit of 750 bone dry tons pulp per day for the PGW was proposed by Blandin as part of this project.

EU034 was evaluated under two scenarios. Scenario 1 is for control of 100 percent of the EU034 exhaust. Scenario 2 is for 70 percent capture of the EU034 exhaust, and 95 percent control of the EU034 VOC. All the control options analyzed under Scenario 1 were considered to not be cost effective; the minimum control cost for this scenario is $30,898/ton. Scenario 2, with overall control of 67 percent of the VOCs using RTO was determined to be BACT; the cost effectiveness for this scenario is $5600/ton.

The paper machines (existing EU010/PM6 and new EU039/PM7) were analyzed using two scenarios similar to EU034. The first scenario for each paper machine was controlling all the vents associated with each machine. The second scenario for each paper machine considered partial capture of the exhausts from the paper machines. In addition, each scenario was analyzed using two VOC emission rates, since the pulp from the pulping processes have different emission rates. The two rates were VOC emissions using the maximum amount of PGW pulp (with the higher VOC emission rate) and VOC emissions using the average PGW/TMP pulp mixture. The control costs for all these options was very high; Scenario 2, which would have lower costs than Scenario 1, had costs ranging from $35,000/ton to $50,000/ton for PM6 and ranging from $64,000/ton to $72,000/ton for PM7. These costs are not considered to be cost effective, and thus BACT is determined to be no control. The costs for controlling VOC emission from the coater/dryer 6 ranged from $15,000/ton to $114,000/ton; these costs are not cost effective.

Combustion Sources

A BACT analysis was performed for NO_x, VOC, and SO_2 for both Boiler 9 and the additional space heating.

The types of NO_x control considered were selective catalytic reduction (SCR), selective non-catalytic reduction (SNCR), flue gas recirculation (FGR), and low NOx burners. All of these options are considered to be technically feasible.

Although SCR may have been considered cost effective (the cost effectiveness was originally estimated at approximately $9000/ton), FGR with low NOx burners was determined to be BACT in this case. Although there were determinations listed in the BACT/LAER Clearinghouse showing SCR as BACT, upon further investigation it was determined that there are no cases of SCR actually installed for this category of boilers (i.e. natural-gas fired). In addition, in cases where SCR was considered, it was considered not to be cost effective, even at costs below the $9000/ton cost calculated by Blandin.

VOCs from combustion sources are generally controlled through good combustion practices. VOCs are formed due to incomplete combustion; therefore, controlling the process will result in minimized VOC emissions. VOCs could potentially be controlled by add-on incineration. The cost of add-on control is not cost effective;

cost calculations were not provided since the cost would obviously be excessive compared to the VOC removal. BACT for VOC is the use of natural gas and good combustion practices.

The use of low-sulfur containing fuel such as natural gas is the BACT for SO_2 to be used in the new boiler. Any add-on control technology for control of SO_2 is not cost effective.

BACT for the space heaters, for NO_x, VOC and SO_2, is use of natural gas and good combustion practices. Any add-on control for the relatively small amount of space heating (11.9 MMBtu/hr) to be added would not be cost effective.

3.3.3 Ambient Air Quality Analysis

An air impacts analysis was completed for NO_x and SO_2 as part of Permit 06100001-009. The results of the preliminary analysis indicated that the SO_2 annual results are below the respective significant impact levels (SIL); therefore, no additional modeling was needed for the SO_2 annual analysis. Full analysis was required for NO_x, and for SO_2 for 1-hour, 3-hour, and 24-hour averaging periods. A summary of the National Ambient Air Quality Standards (NAAQS) and Minnesota Ambient Air Quality Standards (MAAQS) modeling results for NO_x, and SO_2 are given below:

Pollutant	Averaging Period	Maximum Predicted Impacts (µg/m3)		M/NAAQS (µg/m3)
		Concentration w/o background	Concentration w/background	Primary Standard (µg/m^3)
NO_x	Annual	32.2	49.2	100
SO_2	1-Hour	293	474	1300[a]
	3-Hour	163	291	1300
	24-Hour	40.2	100	365[a]

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

A summary of the increment consumption results for NO_x and SO_2 is given below:

Pollutant	Averaging Period	Maximum Modeled Impact (µg/m^3)	PSD Class II Increment (µg/m^3)
NO_x	Annual	9.19	25
SO_2	1-Hour	156	512[a]
	3-Hour	114	512[a]
	24-Hour	28.2	91

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

3.3.4 Additional Impacts Analysis

An Additional Impacts Analysis was required to be performed as part of the PSD process. The original analysis showed no degradation of visibility near the facility, and a maximum CO impact of approximately 3.5 percent of the CO MAAQS/NAAQS.

As stated previously, the Permittee has completed the required Endangered Species assessment, and the results are included as Attachment C.

3.4 MACT

The proposed new natural gas-fired boiler (EU033/Boiler 9) was to be subject to 40 CFR Part 63, subp. DDDDD, NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters, which was

vacated on July 30, 2007. Because the boiler is a non-major HAP source, it is subject to a case-by-case determination under Section 112(j) of the Clean Air Act, due within 30 days of startup of the boiler.

3.5 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

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

Table 5. Periodic Monitoring for Units Affected by This Permit Action

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
Total Facility	Parameters Used in Modeling (Title I Condition: 40 CFR § 52.21)		Permittee must maintain stack parameters as used in PSD modeling. Emission rates are for NO_x and SO_2. Modeling was performed for PM10 as part of modeling required under the Title V permit; MPCA policy does not normally require that these parameters be maintained as is required for PSD modeling.
EU009, EU013 EU039 (Paper machine 5, coater/dryer 5, paper machine 7)	Notification of shutdown of PM5 and Coater/Dryer #5 is required to verify shutdown of emission units. Notification of startup of PM 7 is also required at same time.		Notifications are necessary to verify removal of equipment, as assumed in netting analysis.
EU015 (PGW)	VOC destruction efficiency: $\geq$ 90%, or $\leq$ 0.081 lb VOC/ton bone dry pulp (Title I Condition: BACT)	Recurring performance tests (every 5 years)	Testing for VOC as C is sufficient since test results are used to show destruction efficiency, as long as testing is done the same for inlet and outlet.

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
	RTO Temperature: ≥ 1450 ºF, 3-hour rolling average (monitoring in support of BACT)	Continuous monitoring	
	Production limit: ≤ 750 bone-dry tons pulp/day, 365-day rolling average (limit to avoid AERA review) Production limit: ≤ 217150 bone-dry tons pulp/year, 365-day rolling sum (Title I; used in BACT analysis)	Daily recordkeeping and calculation of production	
EU033 (Boiler #9)	NO_x: ≤ 0.035 lb/MMBtu, 24-hour average (BACT limit) NO_x: ≤ 0.20 lb/MMBtu, 30-day rolling average (NSPS Subp. Db)	CEMS used for NO_x (NSPS requirement);	
	Natural gas usage limit ≤ 1215 $MMft^3$/yr, 365-day rolling average (BACT limit)		
	Initial startup of boiler no more than 15 days prior to removal of PM5		Removal of PM5 and its coater, and associated decrease in steam production, was used in netting analysis. These reductions must occur prior to startup of the new boiler (15 days overlap is allowed).

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
EU034 (TMP)	VOC destruction efficiency: ≥ 95%, or ≤ 0.021 lb VOC/ton bone dry pulp (Title I Condition: BACT)	Recurring performance tests	Testing is to be done every 3 years, which is more often than for PGW, due to higher efficiency required for TMP. Testing for VOC as C is sufficient since test results are used to show destruction efficiency, as long as testing is done the same for inlet and outlet.
	RTO Temperature: ≥ 1450 ºF, 3-hr rolling average (monitoring in support of BACT)	Continuous monitoring	

3.6 Insignificant Activities

Blandin and Minnesota Power have several operations which are classified as insignificant activities. These are listed in Appendix B to the permit. None are specific to this project.

3.7 Comments Received

Public Notice Period: August 4, 2008 – September 2, 2008
EPA 45-day Review Period: August 4, 2008 – September 17, 2008

Two comment letters were received during the public comment period. Both letters stated support of the project, and neither addressed the content of the permit. No changes were made to the permit as a result of these letters. No comments were received from EPA during the 45-day comment period.

4. Conclusion

Based on the information provided by Blandin and Minnesota Power, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 06100001-011, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Toni Volkmeier (permit writer/engineer)
Steve Palzkill (enforcement)
Andrew Place (compliance)
Paula Connell (peer reviewer)

Attachments:

A. Emission Calculations and Summary
B. Facility Description and CD-01 Forms
C. Endangered Species Assessment
D. BACT Summary

Attachment A

Emission Calculations and Summary

Attachment B

Facility Description and CD-01 Forms

Attachment C

Endangered Species Assessment

Jennifer Darrow/R5/USEPA/US@EPA
To david.beil@state.mn.us
06/25/2008 02:28 PM
cc Pamela Blakley/R5/USEPA/US@EPA

Subject ESA consultation for Blandin Paper

In accordance with Step 1 of the Section 7(a)(2) Consultation Process step-by-step instructions provided by Region 3 of the U.S. FWS, we have determined that Canada lynx are present in Itasca County. However, there is no need for further consultation for this project. Step 1 instructs the action agency to consult the county distribution list maintained by U.S. FWS to determine if any species or critical habitat is present. EPA has verified with U.S. FWS that although Canada lynx may be present in Itasca County, the action area for this source is significantly outside the species' core range in Minnesota and the area within 3 kilometers of the facility is mostly a mixture of urban/developed land and surface water. There is some forest in this area, but it is highly unlikely that the lynx would be present. Therefore, no further consultation is necessary.

Attachment D
BACT Analysis Summary

Summary of Technologies Considered for BACT Analysis for Pulp and Paper Sources

Process Equipment	***Technology Considered***	***Comments***
Pressurized Groundwood Pulp Mill (PGW)	*Scenario 1 (100% control of VOCs)*	
	Regenerative Thermal Oxidizer (RTO)	Technically feasible; not cost effective.
	Recuperative Oxidizer	Technically feasible; not cost effective.
	Catalytic Oxidizer	Technically feasible; not cost effective.
	Thermal Oxidizer	Technically feasible; not cost effective.
	Condensation	Technically feasible; not cost effective.
	Carbon Adsorption	Not technically feasible. Concerns with particulates and other contaminants from airstream plugging or fouling the activated carbon.
	Biofiltration	Not technically feasible. Requires significant land area, which is not available at the facility. Use of biofiltration has had limited use, and thus there is uncertainty in degree and consistency of VOC control.
	Scenario 2 (75% combined capture and control of VOCs) – current configuration	
	Regenerative Thermal Oxidizer (RTO)	Technically feasible. Current operation; considered baseline.
	Recuperative Oxidizer	Technically feasible; no addition
	Catalytic Oxidizer	Technically feasible; not cost effective.
	Thermal Oxidizer	Technically feasible; not cost effective.
	Condensation	Technically feasible; not cost effective.
	Carbon Adsorption	Not technically feasible. Concerns with particulates and other contaminants from airstream plugging or fouling the activated carbon.
	Biofiltration	Not technically feasible. Requires significant land area, which is not available at the facility. Use of biofiltration has had limited use, and thus there is uncertainty in degree and consistency of VOC control.
Thermo Mechanical Pulp Mill (TMP)	*Scenario 1 (100% control of VOCs)*	

	Regenerative Thermal Oxidizer (RTO)	Technically feasible; not cost effective.
	Recuperative Oxidizer	Technically feasible; not cost effective.
	Catalytic Oxidizer	Technically feasible; not cost effective.
	Thermal Oxidizer	Technically feasible; not cost effective.
	Condensation	Technically feasible; not cost effective.
	Carbon Adsorption	Not technically feasible. Concerns with particulates and other contaminants from airstream plugging or fouling the activated carbon.
	Biofiltration	Not technically feasible. Requires significant land area, which is not available at the facility. Use of biofiltration has had limited use, and thus there is uncertainty in degree and consistency of VOC control.
	Scenario 2 (70% capture, 95% control of VOCs)	
	Regenerative Thermal Oxidizer (RTO)	Technically feasible.
	Recuperative Oxidizer	Technically feasible; no addition
	Catalytic Oxidizer	Technically feasible; not cost effective.
	Thermal Oxidizer	Technically feasible; not cost effective.
	Condensation	Technically feasible; not cost effective.
	Carbon Adsorption	Not technically feasible. Concerns with particulates and other contaminants from airstream plugging or fouling the activated carbon.
	Biofiltration	Not technically feasible. Requires significant land area, which is not available at the facility. Use of biofiltration has had limited use, and thus there is uncertainty in degree and consistency of VOC control.
Paper Machine 6 and 7	*Scenario 1 (100% control of VOCs)*	
	Regenerative Thermal Oxidizer (RTO)	Technically feasible; not cost effective.
	Recuperative Oxidizer	Technically feasible; not cost effective.
	Catalytic Oxidizer	Technically feasible; not cost effective.
	Thermal Oxidizer	Technically feasible; not cost effective.
	Condensation	Technically feasible; not cost effective.
	Carbon Adsorption	Not technically feasible. Concerns with particulates and other contaminants from airstream plugging or fouling the activated carbon.

	Biofiltration	Not technically feasible. Requires significant land area, which is not available at the facility. Use of biofiltration has had limited use, and thus there is uncertainty in degree and consistency of VOC control.
	Scenario 2 (70% capture, 95% control of VOCs)	
	Regenerative Thermal Oxidizer (RTO)	Technically feasible. Current operation; considered baseline.
	Recuperative Oxidizer	Technically feasible; no addition
	Catalytic Oxidizer	Technically feasible; not cost effective.
	Thermal Oxidizer	Technically feasible; not cost effective.
	Condensation	Technically feasible; not cost effective.
	Carbon Adsorption	Not technically feasible. Concerns with particulates and other contaminants from airstream plugging or fouling the activated carbon.
	Biofiltration	Not technically feasible. Requires significant land area, which is not available at the facility. Use of biofiltration has had limited use, and thus there is uncertainty in degree and consistency of VOC control.