

AIR EMISSION PERMIT NO. 03500002- 001

IS ISSUED TO

MISSOTA PAPER COMPANY

Missota Paper Company
1801 Mill Avenue Northeast
Brainerd, Crow Wing County, MN 56401

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

Permit Type
Total Facility Operating Permit

Application Date
April 1995
Revised: November 29, 2001
Revised (as Missota): March 13, 2003

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

Permit Type: Federal; Pt 70/Incorporates Existing NSR Conditions

Issue Date: December 18, 2003

Expiration: December 18, 2008
All Title I Conditions do not expire.

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

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. 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:

Missota Paper Company owns and operates a non-integrated, i.e. no pulp is produced on-site, paper mill in Brainerd, Minnesota. Missota Paper Company purchased the mill from Potlatch Corporation, who operated the mill through May, 2002. Missota started to operate the mill in March, 2003, following a temporary shutdown. The mill purchases bleached Kraft pulp and recycled pulp to produce fine un-coated printing paper.

The significant emission units include Boilers #1 through #4 and the #5 and #6 paper machines. The #7 coater was dismantled and removed from the facility during the temporary shutdown. Boiler #1 burns natural gas only, boiler #2 burns coal, and boilers #3 and #4 burn coal and natural gas. In addition, used oil and on-site generated petroleum-derived used oil/sorbents/filter media and kerosene soaked sorbents may be burned in the coal-fired boilers. The boilers are sources of criteria pollutants as well as Hazardous Air Pollutants (HAP). The paper machines are not significant sources of criteria pollutants except for volatile organic compounds; they also emit HAPs.

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

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

Subject Item: Total Facility	
What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
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
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 and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and 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
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
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
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	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
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 Copy: due 105 days after each Performance Test	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2
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
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) and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

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)
RECORDKEEPING	hdr
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)
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)
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
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)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). To be submitted on a form approved by the Commissioner.	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
SOURCE-SPECIFIC REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

The facility currently uses ozone-depleting substances as defined in 40 CFR pt. 82. Sections 601-618 of the 1990 Clean Air Act Amendments and 40 CFR pt. 82 may apply to your facility. Read Sections 601-618 and 40 CFR pt. 82 to determine all the requirements that apply to your facility.	40 CFR pt. 82
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TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

Subject Item: GP 001 Existing Boilers

Associated Items: CE 001 Electrostatic Precipitator - High Efficiency
CE 007 Single Cyclone
CE 008 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
CE 009 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
EU 002 Boiler 2
EU 003 Boiler 3
EU 004 Boiler 4
SV 005 ESP Exhaust Stack

What to do	Why to do it
LIMITS AND REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input . (This limit applies individually to each boiler listed above under Associated Items.) The PTE for each emission unit, using AP-42 emission factors and 95% control efficiency, is 0.12 lb/MMBtu.	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. (This limit applies individually to each boiler listed above under Associated Items.)	Minn. R. 7011.0510, subp. 2
Sulfur Dioxide: less than or equal to 4 lbs/million Btu heat input when coal is being burned. (This limit applies individually to each boiler listed above under Associated Items.)	Minn. R. 7011.0510, subp. 1
Fuels Allowed: The Permittee shall only combust coal or natural gas in EU 003 or EU 004 (Boiler #3 or #4) and only coal in EU 002 (Boiler #2). In addition, on-site generated petroleum derived used oil/sorbents/filter media and kerosene-soaked sorbents may be burned in the boilers. The used oil shall only be on-specification used oil. The used oil and kerosene-soaked sorbents must be generated on site.	Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 2.5 percent by weight for coal.	Minn. R. 7007.0800, subp. 2
Used Oil Fuel Usage: less than or equal to 8000 gallons/year using 12-month Rolling Sum	Minn. R. 7007.0800, subp. 2
Fuel Usage: less than or equal to 250 Other using 12-month Rolling Sum . The Permittee shall be limited to fuel usage of less than or equal to 250 BARRELS of oil- or kerosene-soaked sorbent/filter media per year on a 12-month rolling sum basis.	Minn. R. 7007.0800, subp. 2
CONTROL EQUIPMENT	hdr
The Permittee shall operate and maintain the electrostatic precipitator at all times that any of the boilers (EU 002, EU 003, and EU 004) are burning coal, used oil, or kerosene-soaked sorbents.	Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves a control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14
ESP monitored parameters: Total power input: greater than 100 volts, as an absolute minimum unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average total power input recorded during the most recent MPCA approved performance test where compliance for particulate matter emissions was demonstrated. If the total power input drops below the minimum total power input limit, this shall be reported as a deviation.	Minn. R. 7007.0800, subp. 2 and 14
Daily Monitoring: The Permittee shall physically check the total power input recording device at least once each operating day to verify that it is working and recording properly.	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. 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
Corrective Actions: If the power input is outside the range specified by this permit or if the ESP 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 total power input 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 ESP. 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

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

The Permittee shall operate and maintain the ESP 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
The Permittee shall maintain a continuous hard copy readout or computer disk file of the total power input readings for the ESP. Installation of the necessary monitoring and recording equipment is due within 90 days of permit issuance.	Minn. R. 7007.0800, subp. 4 and 5
PERFORMANCE TESTING	hdr
Performance Test: due 1,095 days after Permit Issuance, and every five years thereafter, to measure Opacity and Total Particulate Matter emissions. The interval between performance tests shall be no greater than 60 months. Testing is to be performed on SV 005, stack from ESP.	Minn. R. 7017.2020, subp. 1
RECORDKEEPING	hdr
Coal Fuel Records. The Permittee shall obtain and maintain a certification from the fuel supplier for each coal delivery. The certification shall specify the sulfur content of the coal, in percent by weight. This information shall be maintained on site.	Minn. R. 7007.0800, subp. 5
Recordkeeping. The total amounts of used oil and absorbent material added to the boiler fuel stream shall be calculated and recorded daily.	Minn. R. 7007.0800, subp. 4 and 5
Monthly Recordkeeping - Fuel Usage. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of used oil and of oil/kerosene-soaked sorbent/filter media usage for the previous calendar month using daily usage records. 2) The 12 month rolling sum fuel usage for the previous 12 month period by summing the monthly fuel usage data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

Subject Item: GP 002 Paper Machines**Associated Items:** EU 014 #5 Paper Machine

EU 015 #6 Paper Machine

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn R. 7011.0730 or Minn. R. 7011.0735. These types of machines by their nature do not generate particulate emissions and therefore will not emit particulate matter in any significant amount.	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)
Periodic Monitoring: the Permittee shall maintain proper maintenance of the paper machines so as to prevent excessive amounts of particulate matter from being emitted from the associated stack/vents.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

Subject Item: EU 001 Boiler 1**Associated Items:** SV 001 Boiler #1 Exhaust

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . The PTE of this emission unit is 0.0076 lb/MMBtu.	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Fuel Usage: less than or equal to 760 million cubic feet/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.	Title I Condition: Limit to avoid classification as major modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Daily Recordkeeping. On each day of operation, the Permittee shall record and maintain the total quantity of natural gas burned in Boiler #1. This shall be based on a flowmeter.	Title I Condition: Monitoring for Limit to avoid classification as major modification under 40 CFR 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800. subp. 4 and 5
Monthly Recordkeeping -- Natural Gas Usage By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of natural gas in Boiler #1 for the previous calendar month using the daily usage records. 2) The 12 month rolling sum natural gas usage for the previous 12 month period by summing the natural gas usage data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

TABLE B: SUBMITTALS

12/18/03

Facility Name: Missota Paper Co
Permit Number: 03500002 - 001

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance for PM10, SO2, and NOx. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance for PM10, SO2 and NOx. To be submitted after the MPCA has reviewed and approved the modeling protocol. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility

TABLE B: RECURRENT SUBMITTALS

12/18/03

Facility Name: Missota Paper Co

Permit Number: 03500002 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX B – Insignificant Activities

Facility Name: Missota Paper Co

Permit Number: 03500002-001

Insignificant Activities and Applicable Requirements

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

The following sources at the Permittee's facility qualify as insignificant activities under Minn. R. 7007.1300, subps. 2, 3 and 4 (the applicable subparts are specified with the emission units below) and are not required to be listed in the permit.

Applicable requirements to which the emission units listed below may be subject include:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.0710 Standards of Performance for Pre-1969 Industrial Process Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.1105 Standards of Performance for Certain Coal-Handling Facilities

Telephone & Pager System Back-up Generator

NOTE: This system was decommissioned in May of 2002 and will not be used again
propane powered, formerly tested weekly
MN Rule 7007.1300, Subp. 4(B)

Hydroplant Back-up Generator

gasoline powered, only 1/2 gallon fuel tank
MN Rule 7007.1300, Subp. 4(B)

Vaculift Back-up Generator

NOTE: This system is on site, but has not been used since 5/2002, nor does Missota plan to use it.
propane powered
MN Rule 7007.1300, Subp. 4(B)

Waste Treatment Fugitive Emissions

ENSR 1995 Application showed max uncontrolled emissions at 0.412 tpy VOC based on WATER 7 software
MN Rule 7007.1300, Subp. 4(B)

Waste Treatment Plant Space Heating Boiler and Monofill Space Heater

Natural Gas Fired, Burns approx. 4.69 MM ft³ per year
All pollutants well below 1 tpy
MN Rule 7007.1300, Subp. 4(B)

Color Kitchen Dry Raw Materials Handling

The baghouses are integral to the process - they recover valuable raw materials and deposit the raw materials in user bins. They are necessary in order to pneumatically convey the raw materials.
Exempted from being called emission units

Trim System Cyclone and Baghouse (Biel Broke System)

The cyclone and baghouse are integral to the process - they recover valuable raw materials that are repulped to make new paper. Approximately 10% of the paper that is cut into sheets is trimmed off and is repulped.

Exempted from being called emission units

Coal Handling - Fugitives

ENSR 1995 application show actual and PTE to be less than 1 ton per year

MN Rule 7007.1300, Subp. 4(B)

Ash Handling - Fugitives

ENSR 1995 application show actual and PTE to be less than 1 ton per year

MN Rule 7007.1300, Subp. 4(B)

Box Shop Baghouse

NOTE: This system has not been used since May of 2002 and Missota doesn't intend on using it.

Actual emissions less than 1 ton per year (based on a material balance study)

MN Rule 7007.1300, Subp. 4(B)

Fire Water Pumps at Dam

There are two diesel powered pumps

Each has its own 550 gallon diesel tank

Each pump is tested weekly and pumps water during power outages and fires

Each pump uses a 1/2 tankfull of gas a year

Diesel weighs 7.34 lbs/gallon

$7.34 \times 225 \text{ gal} / 2000 = .825 \text{ tons diesel per year per pump}$

Even if all of the fuel converted to criteria pollutants, each pump would emit less

the 1 ton threshold for insignificant activities

MN Rule 7007.1300, Subp. 4(B)

Nipco Space Heaters - Shipping Dept.

Portable, burn kerosene

MN Rule 7007.1300, Subp. 3(A)

Roll Grinder

NOTE: This has not been used since May of 2002 and Missota does not intend to use it.

Exhausts into the building 100% of the time

MN Rule 7007.1300, Subp. 3(D)(2)

Machine Shop Grinding

Exhausts into the building 100% of the time

MN Rule 7007.1300, Subp. 3(D)(2)

Welding Shop

Exhaust Hood

MN Rule 7007.1300, Subp. 3(H)(4)

Technical Services Lab Hoods

Falls under specific laboratory exemption

MN Rule 7007.1300, Subp. 3(G)

Printing Press

Small scale, used to test paper quality. Emits less than 1 tpy all criteria pollutants

MN Rule 7007.1300, Subp. 4(B)

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 03500002-001

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

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator/Facility Information
Missota Paper Company 1801 Mill Avenue Northeast. Brainerd, MN 56401 Crow Wing County (218) 828-3200 SIC Code: 2621

1.2. Description of the facility

Missota Paper Company owns and operates a non-integrated, i.e. no pulp is produced on-site, paper mill in Brainerd, Minnesota. Missota Paper Company purchased the mill from Potlatch Corporation, who operated the mill through May, 2002. Missota started to operate the mill in March, 2003, following a temporary shutdown. The mill purchases bleached Kraft pulp and recycled pulp to produce fine un-coated printing paper.

The significant emission units include Boilers #1 through #4 and the #5 and #6 paper machines. The #7 coater was dismantled and removed from the facility during the temporary shutdown. Boiler #1 burns natural gas only, boiler #2 burns coal, and boilers #3 and #4 burn coal and natural gas. In addition, used oil and on-site generated petroleum-derived used oil/sorbents/ filter media and kerosene soaked sorbents may be burned in the coal-fired boilers. The boilers are sources of criteria pollutants as well as Hazardous Air Pollutants (HAPs). The paper machines are not significant sources of criteria pollutants except for Volatile Organic Compounds (VOCs); they also emit HAPs.

1.3. Description of any changes allowed with this permit issuance

This permit establishes a synthetic minor limit on boiler #1. The Permittee had applied for a permit prior to installation of the boiler. However, the MPCA responded that a permit would not be issued at that time due to a lack of resources, but that the MPCA agreed that the modification qualified as a synthetic minor. Since installation of the boiler it has been operated assuming that a limit existed, such that the emissions have remained under the thresholds for a major amendment.

The Permittee has requested authorization of modifications to boilers #2, #3, and #4 as Pollution Control Projects. The Permittee is considering modifying the boilers to increase the ratio of overfire air to underfire air to increase fuel efficiency. This modification would result in a minimum 5 percent NO_x reduction on each boiler. This potential modification was not included in this permit. If the Permittee wishes to implement this change, the new actual-to- projected actual applicability test (as allowed by New Source Review Reform) can be used. This would preserve the ability to use any decrease in emissions in future netting.

Missota does not produce coated paper at the facility. Therefore, the #7 paper coater and dryer were dismantled and removed from the facility. The resulting reduction in emissions from these units could potentially be used in future netting analyses; the emission calculations for these units have not been verified by MPCA.

1.4 Air Permit History

Missota (Potlatch-Brainerd) Air Permit History

Permit Number	Issuance Date	Activity/Comments
30B -90-I/O-1	10/12/90	Installation of natural gas-fired infrared dryer on #6 paper machine. Also installation of cyclone on No. 3 Biel Broke system – replaces an existing cyclone. Modification of roof vent for No. 5 paper machine.
30B -85-I/O -1	1/22/85	To allow Permittee to modernize color kitchen and other support facilities – enlarging bldg area, building new process equipment and installing air pollution control equipment.
30B-77-O-11	5/24/77	Operating permit for ESP for boilers #2, 3, and 4
30B-75-I-1	11/18/75	Installation of ESP for boilers #2, 3, and 4
30B-73-O-1 through 10	11/7/73	Operation of various pollution control equipment

1.5. Facility Emissions:

Table 1. Total Facility Limited Potential to Emit Summary:

GP/ EU/ SV No.	Emission Unit Description	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Total HAPs tpy
GP 001	Boilers #2, 3, 4	146	31	4198	486	221	5.6	1287
EU 001	Boiler #1	2.9	2.9	0.23	38	32	2.1	0.72
GP 002	Paper Machines	---	---	---	---	---	42	14

	PM tpy	PM₁₀ tpy	SO₂ tpy	NO_x tpy	CO tpy	VOC tpy	Total HAPs
Total Facility Limited Potential Emissions	150	34	4200	520	250	50	1300
Total Facility Actual Emissions (2001)	110	42	630	260	110	39	**

** HAPs not reported in emission inventory

Notes: a) Total Emissions are reported with two significant digits, so may not appear to be summed correctly

b) Actual emissions for PM₁₀ are higher than limited PTE due to past operation of equipment that is no longer operational at facility

Table 2. Facility (TF) and Permit Classification

Classification	Major Source	*Synthetic Minor	*Minor
Prevention of Significant Deterioration	PM, NO _x , SO ₂ , VOC, CO	PM ₁₀	
Nonattainment Area Review	NA	NA	NA
Part 70 Permit Program	PM, NO _x , SO ₂ , VOC, CO	PM ₁₀	
Part 63 National Emissions Standards for Hazardous Air Pollutants (NESHAP)	X		

* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, 40 CFR pt. 70, and 40 CFR pt. 63.

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review regulations. No changes are authorized by this permit; however, a synthetic minor limit for Boiler #1 has been placed into the permit. The Permittee assumed this limit when installing the boiler and used the limit in the application for a synthetic minor amendment for NSR.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a major source under 40 CFR 63. Currently, there are no promulgated NESHAPs that apply to the facility. The facility will be subject to the NESHAP for Industrial/Commercial/Institutional Boilers and Process Heaters, 40 CFR 63, subp. DDDDD, which as of the date of this permit had been proposed but not yet promulgated.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.0710 Standards of Performance for Pre-1969 Industrial Process Equipment
- Minn. R. 7011.1110 Standards of Performance for Existing Outstate Coal Handling Facilities

Table 3. Regulatory Overview of Facility

EU, GP, or SV #	Applicable Regulations	Comments:
GP 001 (Boilers #2, #3, #4)	Minn. R. 7011.0510	Standards of Performance for Existing Indirect Heating Equipment.
	Minn. R. 7011.1110	Standards of Performance for Existing Outstate Coal Handling Facilities. <i>Note: this standard requires compliance with Minn. R. 7011.015, for control of fugitive particulate emissions. This requirement is standard at the FC (facility) level.</i>
EU 001 (Boiler #1)	40 CFR § 52.21	Limit to avoid classification as major amendment under 40 CFR § 52.21
	Minn. R. 7011.0515	Standards of Performance for New Indirect Heating Equipment.
GP 002 (Paper Machines)	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment.

3. Technical Information

3.1 Discussion of Previous Permit Limits

There are some limits in previous permits that were amended or not carried forward to the Part 70 permit. These changes are discussed below.

3.2. 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 for the remaining applicable requirements, the MPCA considered the following:

- the initial compliance method;
- the format of the applicable requirement;
- the likelihood of violating the applicable requirement;
- whether add-on controls are necessary to meet the emission limit;
- 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.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4. Emission Units Subject to Periodic Monitoring

EU/ GP/ CE	Emission limit (Basis)	Additional Monitoring	Discussion
GP 001	PM: ≤ 0.6 lb/mmBtu Opacity: ≤ 20 % with exception (Minn. R. 7011.0510) SO ₂ : ≤ 4.0 lb/mmBtu; Sulfur Content of Coal: 2.5 % by weight (Minn. R. 7011.0510) ESP total power input > 100 volts	Fuel certification Recordkeeping, O & M, inspections	Design based PTE for each unit, using AP-42, is less than rule limit of 0.6 lb/mmBtu Sulfur content of coal is limited to ensure that state SO ₂ limit is met. Fuel certification records are adequate for periodic monitoring. Continuous recordkeeping of total power input to ensure proper operation of ESP.
EU 001 (Boiler #1)	PM: ≤ 0.4 lb/mmBtu (Minn. R. 7011.0515) Opacity: ≤ 20 % with exception (Minn. R. 7011.0515) Fuel limited to natural gas; natural gas consumption limited to 760 MMBtu/yr (limit to avoid NSR)	Recordkeeping: Monthly Fuel records	The unit uses natural gas; therefore, the likelihood of violating the emission limits is very small. Design based PTE for this boiler, using AP-42, is 0.0072 compared to the rule limit of 0.4 lb/MMBtu
GP 002 (Paper Machines)	PM: \leq variable depending on airflow Opacity: ≤ 20 % (Minn. R. 7011.0610)	None	These types of machines by their nature do not generate particulate emissions. Performance of proper maintenance is sufficient to ensure minimal amounts of particulate.

3.3. Deviations from Delta Guidance

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be tracked (e.g., limits, submittals, etc.), should be in Table A or B. The main reason is that the appendices are word processing sections and are not part of the tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

Appendix B is a listing of the Facility's Insignificant Activities and their applicable requirements. This is a fairly standard way to include these in the permit, since it is highly unlikely the MPCA would need to have these as trackable items in Delta.

Another area where the permit deviates from guidance is in the use of groups for requirements that apply to individual pieces of equipment. This is done in order to streamline the permit.

3.4. Changes to Permit Since Comment Period

No comments were received on the permit during the public notice period. However, some minor changes were made. The changes were to recordkeeping requirements in GP 001 and EU 001. The changes were made to clarify that recordkeeping should be done every day.

No comments were received from EPA during the 45-day EPA review period. There were no further changes made to the permit.

4. Conclusion

Based on the information provided by Missota, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 03500002-001, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Paula Connell, Dave Crowell, Sarah Kilgriff

Peer Review: Dan Sullivan

Attachment: CD-01 Forms
Facility Description Forms
Calculations

NOTE: If you are viewing this document in an electronic format and there are attachments listed that you wish to see but are not included here, contact the person listed in the public notice for information.