

**AIR EMISSION PERMIT NO. 12300391- 002  
IS ISSUED TO**

**Lafarge North America**

**LAFARGE NORTH AMERICA-CHILDS ROAD TERMINAL**

2145 Childs Road  
St. Paul, Ramsey County, MN 55106

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	Action No.	Application Date (s)	Issuance Date(s)
Total Facility Operating Permit (Title V)	001	September 15, 1997	Not Issued
Total Facility Operating permit (State)	002	April 13, 2006	See Below

This permit authorizes the Permittee to operate and construct the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500, and any additions or changes to conditions incorporated into Minnesota's State Implementation Plan (SIP) under 40 CFR § 52.1220, designated "Title I: SIP for Particulate Matter Less than 10 microns (PM<sub>10</sub>)" must go through the federal SIP approval process before becoming effective. 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 are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

**Permit Type:** State; Limits to Avoid Pt 70/Limits to Avoid NSR; Title I SIP Conditions (PM<sub>10</sub>)

**Issue Date:** November 17, 2006

**Expiration:** Non-Expiring  
All Title I Conditions do not expire.

Each new or revised condition designated "Title I Condition: SIP for PM<sub>10</sub>" is not effective or enforceable until approved by EPA as a SIP revision under Title I of the Clean Air Act.

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Richard J. Sandberg, Manager  
Air Quality Permits Section  
Industrial Division

for Brad Moore  
Acting Commissioner  
Minnesota Pollution Control Agency

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PM<sub>10</sub>.***

**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:**

This permit is a Joint Title I/Title V Federally Enforceable State Operating Permit, as it includes non-expiring Title I Conditions to implement the State Implementation Plan (SIP). Pursuant to 40 CFR pt. 50, 40 CFR pt. 51, 40 CFR § 52.1220, Minn. R. 7007.0100, subp. 25B, and Minn. R. 7007.1050, subp. 4.

Lafarge North America (formerly known as Lafarge Corporation) owns and operates a portland cement distribution terminal next to the Mississippi River in Ramsey County, St. Paul, Minnesota. The facility currently operates six silos with pollution control equipment used for storage and distribution of cementitious products. The material is currently delivered by truck, stored in the silos, and distributed by truck.

Lafarge North America proposed to install and operate a new rail siding to re-initiate rail delivery of material to the silos, redesign the pneumatic conveyance system to allow dedicated use of two existing silos with new pollution control equipment for additional blended cementitious products.

The main sources of emissions are Particulate Matter (PM), and Particulate Matter less than 10 microns (PM<sub>10</sub>). The permit limits the emissions of the facility such that the facility is classified as a non-major source under federal New Source Review (NSR, 40 CFR § 52.21) and federal Operating Program (40 CFR pt. 70). The facility is part of the SIP to reach attainment of PM<sub>10</sub> Ambient Air Quality Standards in the Ramsey County area. This permit will be submitted to U.S. Environmental Protection Agency (EPA) for inclusion into the SIP, and will replace the Administrative Order upon EPA approval.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-1

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

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

**Subject Item:****Total Facility**

<b>What to do</b>	<b>Why to do it</b>
A. STATE IMPLEMENTATION PLAN (SIP) REQUIREMENTS	hdr
Process Throughput: less than or equal to 1,100 tons/day using 24-hour Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Process Throughput: less than or equal to 100,000 tons/year using 12-month Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
ACTIVITIES NOT REQUIRING A MODIFICATION TO THE SIP: The Permittee is authorized to make changes to the facility without obtaining a modification to the SIP as long as the change does not increase from any emission point, the PM10 emission rates (either lb/hr or gr/dscf) or overall PM10 emissions, or alter equipment or parameters described in Appendix B, which forms the basis of the PM10 modeling.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Remodeling for Attainment Demonstrate: Before making any physical changes or changes to the method of operation which may affect parameters listed in Appendix B, the Permittee shall demonstrate to the MPCA that the PM10 plume dispersion characteristics following the physical change or change in method of operation will be equivalent to or better than the PM10 dispersion characteristics modeled using the parameters in Appendix B. The information submitted must include, at a minimum, the locations, heights, and the diameters of the stacks, locations and dimensions of nearby buildings, the velocity and temperature of the gasses emitted, and the PM10 emission rates.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
ACTIVITIES REQUIRING A MODIFICATION TO THE SIP: Activities requiring a modification of the SIP prior to the Permittee commencing the activity include, but are not limited to, the following: 1. Any decrease in stack emissions exit velocity; 2. Any decrease in the exit point heat content of stack emissions; 3. Any reduction in stack height below that contained in Appendix B; 4. Any increase in stack exit diameter above that contained in Appendix B; and 5. Any construction or modification of structures that increase the effective structural dimensions.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
General Operation and Maintenance Requirements for the SIP: The Permittee shall operate and maintain the process and control equipment described in Appendix B according to the parameters set forth in Appendix B. The parameters were used in the computer modeling performed to demonstrate that the Childs Road portion of the PM10 maintenance area will attain compliance with the PM10 NAAQS.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Shutdown or Breakdown of Pollution Control Equipment: In an event of a shutdown or breakdown of pollution control equipment, the Permittee shall follow the shutdown and breakdown procedures found in Minn. R. 7019.1000.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Construction and Operation of SIP Emission Units: The Permittee may begin actual construction of new emission units or modification to existing emission units upon permit issuance. However, the Permittee shall not operate any new emission unit or modified emission unit until any required SIP amendment is approved by EPA.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Permanent Records for SIP: The Permittee shall permanently maintain the following information together with all amendments, revisions, and modifications to this information:  1. The Permittee shall maintain a file or files of information on the design, construction and operation of each emission facility, emission source, stack, structures pertinent to modeling for downwash, and any other information required to conduct PM10 ambient air quality modeling of emissions from the facility.  2. The Permittee shall maintain a file at the facility which includes all PM10 emission compliance demonstration plans which upon approval by the MPCA or EPA become integral and enforceable parts of the SIP.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7007.0800, subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-2**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

Non-Permanent Records for SIP: The Permittee shall retain all records at the stationary source for a period of six (6) years from the date of the required monitoring, sample, measurement, or report that corresponds with a State Implementation Plan (SIP) Title I Condition include, but not limited to the following: 1. Monitoring, Testing (if required by the Commissioner, and other Records); 2. Startup, Shutdown, Bypass and Breakdown for each piece of process equipment, control equipment, emission stack, and monitoring system; 3. Any exceedence of an emission limitation or opacity limitation and any noncompliance with an operational requirement at the facility; 4. All required documents, records, reports and plans in a form suitable for determination of the facility's compliance with the SIP by EPA or MPCA staff. The Permittee shall maintain the information at the facility in files which are easily accessible of inspection by EPA or MPCA staff, and are available for inspection.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7007.0800, subp. 5
Recordkeeping of Material Throughput: 1. The Permittee shall calculate and record the material throughput every 24 hours of operation; and  2. The Permittee shall calculate and record the material throughput 12-month rolling average once a month.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7007.0800, subp. 5
Reporting: The Permittee may undertake certain changes to the facility without obtaining a modification to the SIP. However, if the Permittee does make a change, and if the change in any way affects PM10 emissions (reduces the amount or changes the concentration, size, character, velocity, direction, or location of PM10 emissions) the Permittee shall notify the Commissioner in writing at least 30 days prior to undertaking the change. The notification shall describe the change and why it does not require a modification of the SIP.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Annual Report for SIP: due 30 days after end of each calendar year following Permit Issuance to the Commissioner. The report shall contain the following information: a record of data used in calculating PM10 emissions, and calculations of the PM10 emissions; a record of each unscheduled startup, shutdown, and breakdown of process and control equipment; a summary record of excess PM10 emissions, opacity exceedances and noncompliance with fugitive emissions requirements (or the Permittee shall state if no exceedances, and noncompliance conditions occurred in the calendar year).	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
<b>B. OPERATIONAL REQUIREMENTS</b>	hdr
The Permittee shall comply 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. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080.
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 control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices 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 practices, 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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-3**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
<b>C. PERFORMANCE TESTING</b>	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  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
<b>D. MONITORING REQUIREMENTS</b>	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)
<b>E. RECORDKEEPING</b>	hdr
Recordkeeping: 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)
<b>F. REPORTING/SUBMITTALS</b>	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.  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

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-4**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

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 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. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

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11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

**Subject Item:** EU 001 Pneumatic Conveyance to Material Storage Silo No. 1**Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 001 Silo No. 1

What to do	Why to do it
<b>A. EMISSION LIMITS</b>	hdr
Particulate Matter < 10 micron: less than 0.25 lbs/hour using 24-hour Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Total Particulate Matter: less than 0.02 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. The PTE for this unit is 0.25 lb/hr.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity, except for one six-minute period per hour of not more than 33 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 33 percent.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7011.0105
<b>B. OPERATIONAL REQUIREMENTS FOR POLLUTION CONTROL EQUIPMENT</b>	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
Pressure Drop: greater than 2 inches of water column and less than 6 inches of water column during hours of operation	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Visible Emissions: The Permittee shall check the SV 001 associated with CE 001 for visible emissions when operating during daylight hours, on a daily basis.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occurs:  -visible emissions are observed; -recorded pressure drop is outside the required operating range; or -the fabric filter or any of its components are found during the inspections to need repair.  Corrective actions shall return the pressure drop to within the permitted range 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 Operation and Maintenance Plan for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>C. RECORDKEEPING REQUIREMENTS</b>	hdr
Recordkeeping of Pressure Drop. The Permittee shall record every 24 hours, if in operation, the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit and take the appropriate corrective actions.  If pressure drop range exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of Visible Emissions: The Permittee shall record every 24 hours during operation the time and date of each visible emission inspection and whether or not any visible emissions were observed, and take the appropriate corrective actions.  If visible emissions exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of corrective actions: The Permittee shall keep a record of the type and date of any corrective action taken for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>D. MONITORING REQUIREMENTS</b>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-6**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

Operation and Maintenance of Fabric Filter: The Permittee shall maintain the fabric filter in proper operating condition. EU 001 shall not be operated unless the associated pollution control equipment (CE 001) is also operated at all times.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by the permit. The monitoring equipment must be installed, in use, and properly maintained whenever the fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
E. REPORTING REQUIREMENTS	hdr
Initial Startup: due 30 days after Startup of control equipment.	Minn. R. 7007.0800, subp. 4
Submit: due 60 days after Notification of initial startup of pollution control equipment, the Permittee shall submit to the MPCA vendor certification of performance. If the certification is approved by the Commissioner, the certification will be acknowledged in writing by the Commissioner.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-7**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

**Subject Item:** EU 002 Pneumatic Conveyance to Material Storage Silo No. 2**Associated Items:** CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 002 Silo No. 2

What to do	Why to do it
<b>A. EMISSION LIMITS</b>	hdr
Particulate Matter < 10 micron: less than 0.25 lbs/hour using 24-hour Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Total Particulate Matter: less than 0.02 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. The PTE of this unit is 0.25 lb/hr.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity ,except for one six-minute period per hour of not more than 33 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 33 percent.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7011.0105
<b>B. OPERATIONAL REQUIREMENTS FOR POLLUTION CONTROL EQUIPMENT</b>	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
Pressure Drop: greater than 2 inches of water column and less than 6 inches of water column during hours of operation	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Visible Emissions: The Permittee shall check the SV 002 associated with CE 002 for visible emissions when operating during daylight hours, on a daily basis.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occurs:  -visible emissions are observed; -recorded pressure drop is outside the required operating range; or -the fabric filter or any of its components are found during the inspections to need repair.  Corrective actions shall return the pressure drop to within the permitted range 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 Operation and Maintenance Plan for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>C. RECORDKEEPING REQUIREMENTS</b>	hdr
Recordkeeping of Pressure Drop. The Permittee shall record every 24 hours, if in operation, the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit and take the appropriate corrective actions.  If pressure drop range exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of Visible Emissions: The Permittee shall record every 24 hours during operation the time and date of each visible emission inspection and whether or not any visible emissions were observed, and take the appropriate corrective actions.  If visible emissions exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of corrective actions: The Permittee shall keep a record of the type and date of any corrective action taken for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>D. MONITORING REQUIREMENTS</b>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-8**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

Operation and Maintenance of Fabric Filter: The Permittee shall maintain the fabric filter in proper operating condition. EU 002 shall not be operated unless the associated pollution control equipment(CE 002) is also operated at all times.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by the permit. The monitoring equipment must be installed, in use, and properly maintained whenever the fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
E. REPORTING REQUIREMENTS	hdr
Initial Startup: due 30 days after Startup of control equipment.	Minn. R. 7007.0800, subp. 4
Submit: due 60 days after Notification of initial startup of pollution control equipment, the Permittee shall submit to the MPCA vendor certification of performance. If the certification is approved by the Commissioner, the certification will be acknowledged in writing by the Commissioner.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-9**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

**Subject Item:** EU 003 Material Storage Silo Nos. 3-6**Associated Items:** CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 003 Silo Nos. 3-6

What to do	Why to do it
<b>A. EMISSION LIMITS</b>	hdr
Particulate Matter < 10 micron: less than 0.84 lbs/hour using 24-hour Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Total Particulate Matter: less than 0.02 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. The PTE of this unit is 0.84 lb/hr.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity, except for one six-minute period per hour of not more than 33 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 33 percent.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7011.0105
<b>B. OPERATIONAL REQUIREMENTS FOR POLLUTION CONTROL EQUIPMENT</b>	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
Pressure Drop: greater than 2 inches of water column and less than 6 inches of water column during hours of operation	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Visible Emissions: The Permittee shall check the SV 003 associated with CE 003 for visible emissions when operating during daylight hours, on a daily basis.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occurs:  -visible emissions are observed; -recorded pressure drop is outside the required operating range; or -the fabric filter or any of its components are found during the inspections to need repair.  Corrective actions shall return the pressure drop to within the permitted range 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 Operation and Maintenance Plan for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>C. RECORDKEEPING REQUIREMENTS</b>	hdr
Recordkeeping of Pressure Drop. The Permittee shall record every 24 hours, if in operation, the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit and take the appropriate corrective actions.  If pressure drop range exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of Visible Emissions: The Permittee shall record every 24 hours during operation the time and date of each visible emission inspection and whether or not any visible emissions were observed, and take the appropriate corrective actions.  If visible emissions exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of corrective actions: The Permittee shall keep a record of the type and date of any corrective action taken for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>D. MONITORING REQUIREMENTS</b>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-10**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

Operation and Maintenance of Fabric Filter: The Permittee shall maintain the fabric filter in proper operating condition. EU 003 shall not be operated unless the associated pollution control equipment(CE 003) is also operated at all times.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
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
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by the permit. The monitoring equipment must be installed, in use, and properly maintained whenever the fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
E. REPORTING REQUIREMENTS	hdr
Submit: due 90 days after Permit Issuance the vendor recertification of performance to the MPCA for CE 003.	Minn. R. 7007.0800, subps. 2 and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-11**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

**Subject Item: FS 001 Truck Loading Operations****Associated Items:** CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

What to do	Why to do it
<b>A. EMISSION LIMITS</b>	hdr
Particulate Matter < 10 micron: less than or equal to 0.15 tons/year using 24-hour Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Particulate Matter < 10 micron: less than or equal to 0.15 tons/year using 12-month Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
<b>B. OPERATIONAL REQUIREMENTS FOR POLLUTION CONTROL EQUIPMENT</b>	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99.0 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
Pressure Drop: greater than 2 inches of water column and less than 6 inches of water column during hours of operation	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Visible Emissions: The Permittee shall check CE 003 for visible emissions when operating during daylight hours, on a daily basis.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occurs:  -visible emissions are observed; -recorded pressure drop is outside the required operating range; or -the fabric filter or any of its components are found during the inspections to need repair.  Corrective actions shall return the pressure drop to within the permitted range 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 Operation and Maintenance Plan for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>C. RECORDKEEPING REQUIREMENTS</b>	hdr
Recordkeeping of Pressure Drop. The Permittee shall record every 24 hours, if in operation, the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit and take the appropriate corrective actions.  If pressure drop range exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of Visible Emissions: The Permittee shall record every 24 hours during operation the time and date of each visible emission inspection and whether or not any visible emissions were observed, and take the appropriate corrective actions.  If visible emissions exceed the permitted limit, the Permittee shall report it as a deviation in the Company's semiannual report.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of corrective actions: The Permittee shall keep a record of the type and date of any corrective action taken for the fabric filter.	Minn. R. 7007.0800, subp. 5
<b>D. MONITORING REQUIREMENTS</b>	hdr
Operation and Maintenance of Fabric Filter: The Permittee shall maintain the fabric filter in proper operating condition. EU 003 shall not be operated unless the associated pollution control equipment(CE 003) is also operated at all times.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Lafarge North America-Childs Rd Terminal  
Permit Number: 12300391 - 002

Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by the permit. The monitoring equipment must be installed, in use, and properly maintained whenever the fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
E. REPORTING REQUIREMENTS	hdr
Submit: due 90 days after Permit Issuance the vendor recertification of performance to the MPCA for CE 003.	Minn. R. 7007.0800, subps. 2 and 14



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-13**

11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

**Subject Item:** FS 002 Unpaved Road**Associated Items:** CE 004 Dust Suppression by Chemical Stabilizers or Wetting Agents

What to do	Why to do it
A. EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.30 tons/year using 24-hour Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Particulate Matter < 10 micron: less than or equal to 0.30 tons/year using 12-month Rolling Average	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
B. MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
Operation Restrictions for Unpaved Roadways: The Permittee shall apply the chemical dust suppressant calcium chloride (CaCl <sub>2</sub> ) or a substitute as approved by the Commissioner, to the unpaved roads at the Facility as follows:  1. The Permittee shall apply CaCl <sub>2</sub> on all unpaved roadways at an initial rate of 1.5 pounds per square yard each April;  2. The Permittee personnel shall perform an inspection of the unpaved roadways each day. If the roadways need further dust suppressant applied, the Permittee shall apply CaCl <sub>2</sub> at a rate of 0.5 pounds square yard to those areas where fugitive dust is observed;  3. When there is no traffic on the unpaved roads or the facility is closed for the entire day, the Permittee does not need to perform daily inspections of the unpaved roadways;	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
4. When the ground is frozen, no chemical dust suppressant needs to be applied (approximately the calendar months of November through March); and  5. If the Permittee decides to use a dust suppressant other than CaCl <sub>2</sub> , the Permittee shall first obtain written approval from the Commissioner. Upon receiving the MPCA approval, the Permittee shall apply the new dust suppressant according to the manufacturer's recommendations and any MPCA requirements set forth in the written approval.	CONTINUED Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Visible Emissions: The Permittee shall check for visible emissions when operating during daylight hours, on a daily basis.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping: The Permittee shall record visible emissions once every 24 hours during operation of the unpaved roads and record if additional dust suppressant was applied and how much was applied. If there is no traffic on the unpaved roads or the facility is closed for the entire day, the Permittee shall record that information on a daily basis.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of Dust Application: The Permittee shall record the following:  1. The day in April each year that initial application of dust suppressant was applied; and  2. The dust suppressant application equipment breakdowns and repairs.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Recordkeeping of Corrective Actions: The Permittee shall take corrective action as soon as possible if visible emissions are observed. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 5

## TABLE B: SUBMITTALS

B-1 11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal  
Permit Number: 12300391 - 002

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 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

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.

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 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

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: RECURRENT SUBMITTALS****B-2** 11/17/06

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391 - 002

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
Annual Report	due 30 days after end of each calendar year following Permit Issuance to the Commissioner. The report shall contain the following information: a record of data used in calculating PM10 emissions, and calculations of the PM10 emissions; a record of each unscheduled startup, shutdown, and breakdown of process and control equipment; a summary record of excess PM10 emissions, opacity exceedances and noncompliance with fugitive emissions requirements (or the Permittee shall state if no exceedances, and noncompliance conditions occurred in the calendar year).	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility

## Appendix B: Title I Condition: State Implementation Plan (SIP) for PM<sub>10</sub> NAAQS

Facility Name: Lafarge North America-Childs Rd Terminal

Permit Number: 12300391-002

### PM<sub>10</sub> Point Source Modeling Parameters Relied Upon to Demonstrate Compliance with NAAQS

Source ID	EU, SV, CE	Source Description	Emission Rate		Location UTM NAD83		Base Elev (m)	Stack Height (m)	Stack Temp (K)	Stack Exit Vel. (m/s)	Stack Dia (m)
			g/s	lb/hr	X (m)	Y (m)					
SILO1	EU001; SV 001; CE 001	Silo No. 1 (new material)	0.0318	0.25	496283.1	4975465	213	25.6	293	9.7	0.305
SILO2	EU 002; SV 002; CE 002	Silo No. 2 (new material)	0.0318	0.25	496289.7	4975468	213	25.6	293	9.7	0.305
SILO3_6	EU 003; SV 003; CE 003	Silo No. 3-6 (fly ash)	0.1058	0.84	496279.2	4975480	213	31.09	293	31.35	0.309

### PM<sub>10</sub> Volume Source Modeling Parameters

Source ID	FS	Source Description	Emission Rate		Location UTM NAD83		Base Elev (m)	Release Height (m)	$\sigma_y$ (m)	$\sigma_z$ (m)	
			g/s	lb/hr	X (m)	Y (m)					
UNLOAD	FS 001	Silo Unloading and Truck Loading	4.25E-03	3.37E-02	496285.3	4975474	213	3	1.41	1.39	
TRUCK	FS 002; CE 004	Fugitive Emissions from Truck Traffic	8.58E-03	6.81E-02	496285.3	4975474	213	1	11.4	0.85	



## Office Memorandum

DATE : August 2, 2006

TO : Amrill Okonkwo  
Air Quality Permits Section  
Industrial DivisionFROM : Chris Nelson  
Risk Assessment/Air Modeling  
Environmental Analysis & Outcomes Division

PHONE : 651/296-7750

SUBJECT : Lafarge – Childs Road (DELTA ID 12300391) PM<sub>10</sub> NAAQS Compliance Modeling

Lafarge submitted air dispersion modeling results for the Childs Road Terminal to support their proposed permit and Administrative Order amendment on November 22, 2005. The analysis was updated April 6, 2006. Lafarge – Childs Road is located in a Particulate Matter less than 10 microns (PM<sub>10</sub>) maintenance area southeast of downtown St. Paul. Subsequent discussions with EPA Region V lead me to further update the modeling analysis.

MPCA's updated analysis used AERMOD rather than ISCST3, utilizing MPCA-developed meteorological data. Model options, emissions, and source characterization remained the same. I added PM<sub>10</sub> sources from the nearby Metropolitan Council Environmental Services (MCES) wastewater treatment plant. The MCES data came from an 11/14/05 modeling data submittal and a June 2001 PM<sub>10</sub> air dispersion modeling analysis, submitted by MCES in support of a SIP amendment. Model details are listed below.

- Regulatory default options
- Urban dispersion coefficients with URBANOPT (population = 287151)
- Elevated terrain with AERMAP processed elevations
- 1986-90 meteorology – Minneapolis surface data and St. Cloud upper air data

Refined data for other nearby (within 2 km) PM<sub>10</sub> sources was not available. I do not expect those sources to have a significant impact on the modeled receptor grid, based on their emissions, source type, and proximity. Impacts from PM<sub>10</sub> sources at the southern end of the PM<sub>10</sub> maintenance area were not explicitly included in the model but should be captured in the background concentrations, taken from a PM<sub>10</sub> monitor located on Red Rock Road (in the immediate vicinity those sources).

The modeling analysis used a receptor grid comprised of the Lafarge fenceline receptors and those receptors where Lafarge had a significant impact (impacts greater than PSD Significant Impact Levels [SILs]). The highest 6th-high 24-hour PM<sub>10</sub> impact was 13.9 micrograms per cubic meter (µg/m<sup>3</sup>). Maximum combined annual PM<sub>10</sub> impacts were 4.3 µg/m<sup>3</sup>. I took PM<sub>10</sub> background concentrations from the most recent 5 years of data at the nearby Red Rock Road

ambient monitor. Concentrations represent maximum measured 24-hour and annual PM<sub>10</sub> concentrations. Model results are listed in Table 1. The 24-hour PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS) is 150 µg/m<sup>3</sup>. The annual PM<sub>10</sub> NAAQS is 50 µg/m<sup>3</sup>.

**Table 1. Modeled PM<sub>10</sub> Impacts of Lafarge and MCES WWTP**

Averaging Time	Concentrations (µg/m <sup>3</sup> )		
	Modeled	Background	Total
24-Hour	13.9	102	115.9
Annual	4.3	37	41.3

The modeling results demonstrate that operations at Lafarge will not contribute to an exceedence of the PM<sub>10</sub> NAAQS.

cc: Gary Elliott, Lafarge  
Kaushik Deb, URS Corporation  
Mary Portanova, US EPA, Region V  
AQ File 2174B

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 12300391-002**

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 preliminary determination to issue the permit.

**1. General Information**

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

Applicant/Address	Stationary Source/Address (SIC Code: 5032)
Lafarge North America 600 S.W. Jefferson Street, Suite 302 Lee's Summit, MO 64063	Lafarge North America-Childs Road Terminal 2145 Childs Road St. Paul, MN 55106 Ramsey County
Contact: Gary Elliott Regional Environmental Manager Phone: (918) 388-1155	

**1.2. Description of the Permit Action**

Lafarge North America (formerly known as Lafarge Corporation) submitted an application for a Total Facility Air Emission Permit as required by Minnesota Rules chapter (Minn. R. ch.)7007. Minn. R. ch. 7007 implements Title V of the federal Clean Air Act as amended 1990. The application was received on September 15, 1995. On June 3, 1996, the permit application was withdrawn. On February 27, 2006, the Minnesota Pollution Control requested that Lafarge resubmit an application for a State permit based on Minn. R. 7007.0250, subp. 3.

Lafarge North America (Lafarge) owns and operates a portland cement distribution terminal next to the Mississippi River in Ramsey County, St. Paul, Minnesota. The facility currently operates six silos with pollution control equipment used for storage and distribution of cementitious products. The material is currently delivered by truck, stored in the silos, and distributed by truck.

The permit action described in this Technical Support Document is the issuance of a Joint Title I State Implementation Plan (SIP)/ Federally Enforceable State Total Facility Operating Permit with construction authorization for this facility. The total facility operating permit contains all requirements of all federal regulations and State Rules based on the federal Clean Air Act.



### **1.3 Description of any Changes Allowed with this Permit Issuance**

This permit action responds to an application for a Major Permit amendment. Lafarge proposed to install and operate a new rail siding to re-initiate rail delivery of material to the silos, redesign the pneumatic conveyance system to allow dedicated of two existing silos with new pollution control equipment for additional blended cementitious products.

The main sources of emissions are particulate matter (PM), and particulate matter less than 10 microns (PM<sub>10</sub>). The permit limits the emissions of the facility such that the facility is classified as a non-major source under federal New Source Review (NSR) and federal Operating Program (40 CFR pt. 70).

In order to protect the National Ambient Air Quality Standards (NAAQS), the Minnesota Pollution Control Agency (MPCA) in 1991 issued several Administrative Orders to different companies. The computer modeling analysis for Ramsey County Area shows that, among others, Lafarge- Childs Road was a major contributor of PM<sub>10</sub> emissions in this area; therefore, an Administrative Order (Order) was issued for the company. The Order functioned as a non-expiring permit, as it contained conditions restricting Lafarge's operations. The MPCA based the emission limits and the operating restrictions found in the Order on Lafarge's operating practices and the modeling of the facility. With the limits and the restrictions in the Order, the model predicts that Lafarge complies with the PM<sub>10</sub> standard.

Lafarge's state permit now contains the conditions previously expressed in its Order. Although the format will change, the permit will ensure that the area around Lafarge will attain and maintain compliance with the NAAQS. The final permit will be submitted to Environmental Protection Agency (EPA) for inclusion into the SIP, which will replace the Order after approval from EPA.

### **1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility**

<b>Permit Number and Issuance Date</b>	<b>Action Authorized</b>
2174B-89-OT-1	Total Facility Permit
Administrative Order (November 30, 1992) Two subsequent amendments to the Order dated December 21, 1994 and September 23, 1997	Proceedings that was developed and implemented by the State of Minnesota for the SIP for Ramsey County PM <sub>10</sub> Nonattainment Area to demonstrate attain and maintain compliance with NAAQS for PM <sub>10</sub> .

### **1.5. Facility Emissions:**

**Table 1. Total Facility Potential to Emit Summary**

SV #	EU#	Emission Unit Description	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
001	001	Pneumatic Conveyance to Material Storage No. 1 (New)	1.10	1.10	0.00	0.00	0.00	0.00	0.00	0.00
002	002	Pneumatic Conveyance to Material Storage No. 2 (New)	1.10	1.10	0.00	0.00	0.00	0.00	0.00	0.00
003	003	Material Storage Silo Nos. 3-6 (Modified)	3.68	3.68	0.00	0.00	0.00	0.00	0.00	0.00
FS	001	Truck Loading Operations (Existing)	0.31	0.15	0.00	0.00	0.00	0.00	0.00	0.00
FS	002	Unpaved Road (Existing)	1.01	0.30	0.00	0.00	0.00	0.00	0.00	0.00

	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	7.20	6.33	0.00	0.00	0.00	0.00	0.00	0.00
Total Facility Actual Emissions	1.77	1.77	0.00	0.00	0.00	0.00	HAPs not reported in emission inventory	

**Table 2. Facility Classification**

<b>Classification</b>	<b>Major/Affected Source</b>	<b>Synthetic Minor</b>	<b>Minor</b>
PSD		PM, PM <sub>10</sub>	CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC
Part 70 Permit Program		PM <sub>10</sub>	CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC
Part 63 NESHAP			HAP

## **2. Regulatory and/or Statutory Basis**

### New Source Review

The facility is limited based on SIP requirements; therefore, the facility is non-major under New Source Review Regulations (40 CFR § 52.21).

### Part 70 Permit Program

The facility is a non-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 non-major source under 40 CFR pt. 63. Thus, no NESHAPs apply.

### Minnesota State Rules

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

- *Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment*
- *Minn. R. 7011.0105 Visible Emissions Restrictions for Existing Facilities*

**Table 3. Regulatory Overview of Facility**

EU, GP, or SV	Applicable Regulations	Comments:
Total Facility	Title I Conditions: 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; Minn. R. chs. 7002, 7007, 7009, 7011, and 7030	This section of Table A contains requirements that apply to all facilities in Minnesota. In addition, it also contains modeling requirements for PM <sub>10</sub> and SIP requirements.
EU 001, 002, and 003; FS 001 and 002	Title I Conditions: SIP for PM <sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP	Lafarge shall attain, demonstrate, and maintain compliance with the applicable state and federal Ambient Air Quality Standards for PM <sub>10</sub> .
EU 001, 002 and 003	Minn. R. 7011.0700-7011.0735	Standards of Performance for Industrial Equipment  This standard includes limits for particulate matter
EU 001, 002 and 003	Minn. R. 7011.0105	Visible Emissions Restrictions for Existing Facilities  This standard limits visible emissions.
Total Facility	Minn. R. 7030.0010-7030-0080	Noise Standards, which applies to all facilities in Minnesota. It is a state-only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act' refers to permit requirements that are mandated by state law rather than by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are required by state law. State law requirements are not enforceable by U.S. EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

### 3. Technical Information

### **Calculations of Potential to Emit**

Attachment 1-5 of this TSD contains detailed spreadsheets and supporting information prepared by the Permittee and approved by the MPCA staff.

#### **Throughput Limit**

The throughput limit was based on modeling for the SIP which is expressed as tons per year rolled on 24-hour rolling average. Lafarge must calculate and record the material throughput every 24 hours of operation.

#### **Silo Loading**

The Order was issued in 1992 to limit PM<sub>10</sub> emissions from Lafarge. The limits were based on pounds per hour and grain loading of each emission unit. The grain loading was applied to determine potential emissions for each baghouse; therefore, there are applicable requirements associated with the control equipment. See detailed calculations in Table 3-2 attached.

#### **Silo Unloading (Truck Loading Operations)**

Fugitive particulate emissions were calculated based on AP-42 emission factors (*Chapter 13.2.4, Aggregate Handling and Storage Piles, March 22, 2006*). See detailed calculations in Table 3-3 attached.

#### **Unpaved Road (Fugitive Emissions)**

Fugitive particulate emissions from unpaved roads were estimated based on AP-42 emission factors (*Chapter 13.2.2, Unpaved roads, March 22, 2006*). In addition, Lafarge incorporated the application of calcium chloride with an application rate and frequency as specified in Amendment No. 2 to Second Amended Findings and Order dated September 23, 1997. See detailed calculations in Table 3-4 attached.

### **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, 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 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. Periodic Monitoring**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
Total Facility	<p>Process Throughput: <math>\leq 1,100</math> tons/day based on 24-hour rolling average</p> <p>Process Throughput: <math>\leq 100,000</math> tons/yr based a 12-month rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p>	Recordkeeping: Daily and monthly records and calculations of process throughput.	Lafarge will calculate and maintain records every 24-hour of operation and the 12-month rolling average once every month. These limits will be able to attain compliance with NAAQS.
Pneumatic Conveyance to Material Storage ( EU 001 and 002, CE 001 and 002)	<p>a. PM<sub>10</sub>: <math>\leq 0.25</math> lb/hr based on 24-hour rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p> <p>b. PM: variable depending on airflow. (Minn. R. 7011.0715)</p> <p>c. Opacity: <math>\leq 20\%</math> except for one six-minute per hour of not more than 33% opacity. ((SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7011.0715)</p>	<p>Recordkeeping and reporting: Vendor certification; O &amp; M inspections, pressure drop and visible emission checks.</p> <p>All monitoring equipment will be calibrated as recommended by the manufacturer's specification.</p>	<p>Lafarge will submit vendor certification of performance for the new baghouses to determine that the baghouses can comply with the emission rates necessary to achieve modeled attainment for the PM<sub>10</sub> NAAQS.</p> <p>Lafarge will observe and record the pressure drop across the particulate matter filter in inches of water and check for visible emissions on a daily basis for each piece pollution control equipment. If pressure drop exceeds its range as required, then the Permittee will take corrective actions as soon as possible to eliminate these problems. Visible emissions will be checked during daylight hours on a daily basis. If the visible emissions exceed the permitted limit, the Permittee will report as a deviation on the company's</p>

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
	d. PM/PM <sub>10</sub> : The baghouses must be maintained to achieve 99 percent control efficiency for greater. (limit to avoid classification as a major source and modification under 40 CFR Section 52.21)		semiannual report. Reading the pressure and checking for visible emission on a daily basis will be used as indicators to determine if the pollution control equipment is operating properly.
Pneumatic Conveyance to Material Storage ( EU 003, CE 003)	<p>a. PM<sub>10</sub>: <math>\leq 0.84</math> lb/hr based on 24-hour rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p> <p>b. PM: variable depending on airflow. (Minn. R. 7011.0715)</p> <p>c. Opacity: <math>\leq 20\%</math> except for one six-minute per hour of not more than 33% opacity. ((SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; Minn. R. 7011.0715)</p> <p>d. PM/PM<sub>10</sub>: The baghouse must be maintained to achieve 99 percent control efficiency or greater.</p>	Reporting and recordkeeping: Vendor recertification; O & M inspections, pressure drop and visible emission checks.	<p>Lafarge will submit vendor recertification of performance for the existing baghouse to determine that the baghouse can comply with the emission rates necessary to achieve modeled attainment for the PM<sub>10</sub> NAAQS.</p> <p>Lafarge will observe and record the pressure drop across the particulate matter filter in inches of water and check for visible emissions on a daily basis for each piece pollution control equipment. If pressure drop exceeds its range as required, then the Permittee will take corrective actions as soon as possible to eliminate these problems. Visible emissions will be checked during daylight hours on a daily basis. If the visible emissions exceed the permitted limit, the Permittee will report as a deviation on the company's semiannual report. Reading the pressure and checking for visible emission on a daily basis will be used as indicators to determine if the pollution control equipment is</p>

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	(limit to avoid classification as a major source and modification under 40 CFR Section 52.21)		operating properly.
Silo to Truck Unloading Operations (FS 001, CE 003)	<p>PM<sub>10</sub>: ≤ 0.15 tons/year based on a 24-hour rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p> <p>PM<sub>10</sub>: ≤ 0.15 tons/year based on a 12-month rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p>	Recordkeeping: Reporting and recordkeeping: Vendor recertification; O & M inspections, pressure drop and visible emission checks.	Observation of visible emissions will be used as a surrogate to determine that PM <sub>10</sub> emission rates will be met. If any visible emissions are observed corrective actions will be taken. This is necessary to achieve modeled attainment for the PM <sub>10</sub> NAAQS and to demonstrate compliance with the limitation.
Unpaved Roads (FS 002, CE 004)	<p>PM<sub>10</sub>: ≤ 0.30 tons/year based on a 24-hour rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p> <p>PM<sub>10</sub>: ≤ 0.30 tons/year based on a 12-month rolling average (SIP for PM<sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)</p>	Recordkeeping: Visible emissions once every 24 hours during hours of operations; Record the dust suppressant application and equipment breakdowns and repairs.	The Permittee will check for visible emissions when operating on a daily basis. In addition, the Permittee will record if additional suppressant was applied and how much was applied. If there is no traffic on the unpaved roads or the facility is closed for the entire day, the Permittee shall record that information on daily records. Checking for visible emissions and adding the dust suppressant is adequate to demonstrate compliance with the limitation; therefore, no additional monitoring is warranted.



Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
	e. PM <sub>10</sub> : Applying chemical dust suppressant calcium chloride (CaCl <sub>2</sub> ) on the unpaved roadways (SIP for PM <sub>10</sub> NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP)		

### 3.3 Insignificant Activities

Currently, there are no insignificant activities listed in this permit.

### 3.4 Modeling

Lafarge submitted air dispersion modeling for its current emissions and the proposed modification to the MPCA on April 6, 2006, to show compliance with the PM<sub>10</sub> NAAQS. Based on the result the MPCA has determined that the facility will attain and maintain NAAQS compliance with the Ramsey County PM<sub>10</sub> maintenance area. See Memorandum from Chris Nelson to Amrill Okonkwo, dated August 2, 2006, attached. The following assumptions were made in the modeling analysis in order to show modeled compliance:

- a. The stack parameters and emission rates are as indicated in the Appendix B
- b. Throughput Limits of 1,100 tons per day and 100,000 tons per year of material.

### 3.5 Permit Organization

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.

### 3.6 Comments Received

Public Notice Period: October 11, 2006 – November 9, 2006

EPA Review Period: October 11, 2006 - November 9, 2006

Comments were not received from the public during the public notice period. A letter dated October 11, 2006, was received from the Lac Vieux Desert Band of Lake Superior Chippewa Indians that indicated that they have no interest in this permit action.

Comments were received during EPA 30-day review period from EPA staff for the SIP.

Changes to the permit were made as a result of the comments as follows:

1. Title I SIP Condition was added to Appendix B of the permit;
2. A typographical error was noted and corrected for the pressure drop across the baghouse for EU 001 and EU 002 from “zero” to “two” inches of water;
3. The heading was changed from “Changes Requiring a Modification to the SIP” to “Activities Requiring a Modification to the SIP,” followed by “Activities requiring a modification of the SIP prior to the Permittee commencing the activity include, but are not limited to, the following;” and
4. The annual reporting requirement for the SIP was added in Table A duplicating this requirement in the submittal action Table B so it would appear with the appropriate citation in Table A. (The new condition can be found under “A. State Implementation Plan (SIP) requirements” of the Total Facility Section of the permit.)

#### 4. Conclusion

Based on the information provided by [Lafarge North America](#), the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300391-002, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:

Amrill Okonkwo (permit writer/engineer)

[Robert Berg](#) (enforcement): No longer at MPCA

Catherine Neuschler (State Implementation Plan)

Chris Nelson (Modeling)

[Carolina Schutt](#) (peer reviewer)

- Attachments:
1. [PTE Summary](#) Calculation Spreadsheets
  2. Facility Description and CD-01 Forms
  3. Modeling Parameters relied on compliance demonstration for NAAQS and Memorandum for PM<sub>10</sub> NAAQS Compliance Modeling.
  4. Administrative Order as Amended
  5. EPA’s Comment Letter and MPCA’s Response Letter



ATTACHMENT 1  
PTE Summary Calculation Spreadsheets  
Paper Copy Only



ATTACHMENT 2  
Facility Description and CD-01 Forms  
Paper Copy Only



ATTACHMENT 3  
Modeling Parameters Relied on for Compliance Demonstration for NAAQS and  
Memorandum for PM<sub>10</sub> NAAQS Compliance Modeling  
Paper Copy Only





ATTACHMENT 4  
Administrative Order as Amended  
Paper Copy Only



ATTACHMENT 5  
EPA's Comment Letter and MPCA's Response Letter  
(Paper Copy Only)