

AIR EMISSION PERMIT NO. 12300353- 002

IS ISSUED TO

Lafarge Corporation - US Cement Group

Lafarge Corporation - Red Rock Terminal
1363 Red Rock Road
St Paul, Ramsey County, MN 551196012

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

Permit Type	Application Date
Total Facility Operating Permit	10/27/1997
Major Amendment	9/17/01

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

Permit Type: State; Syn Min Part 70

Issue Date: May 7, 2002

Expiration: Permit does not expire
All Title I Conditions do not expire.

Don Smith for

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

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

BB:lh

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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
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Outside Metro Area	1-800-657-3864
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TTY	(651) 282-5332
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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 limitations of Minn. R. 7007.1800 and 7017.0100, supb. 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:

Lafarge Corporation receives, transfers, stores, and trucks out cement. Lafarge is located in a nonattainment area for particular matter less than 10 microns (PM₁₀). The PM₁₀ emissions sources at Lafarge Corporation include seven baghouses: one for the pneumatic loading to silos, day bin, storage dome; one for the silos, day bin and storage elevator; one for the existing truck loadout spout 01; one for the new truck loadout spout 02; one for the storage dome (next to); one for the storage dome (on top); and one for the auxiliary pneumatic unloading system. The fugitive emissions from the facility include cement truck traffic and employee parking lot.

This permit action responds to two permit amendment application requests.

In March 11, 2000, Lafarge submitted a major amendment application request. After the total facility permit was issued, Lafarge determined that an existing pneumatic vacuum pump had been inadvertently omitted from the total facility permit. The pneumatic vacuum pump was existing and already controlled by a baghouse. The MPCA reviewed the application. The facility modeling was re-run. Based on the addition of the pneumatic vacuum pump unit, the total facility air dispersion modeling conclusions were not changed. U.S. Environmental Protection Agency (EPA) was consulted. EPA advised that a major amendment was not needed to include this existing unit. EPA advised that the pneumatic vacuum pump unit be added into the permit during the next major amendment. Hence, the emission unit and baghouse (EU 013/SV 013/CE 013) is being added at this time.

In addition, this major amendment authorizes the additional emission point (EU 014/SV 014) associated with a new cement silo (Silo #4). The silo emissions are to be controlled by a 12,500 acfm baghouse (CE 014). The new baghouse will be located on the top of the silo. The silo will be filled, pneumatically, from barges bringing cement to the terminal. The new silo baghouse will be permitted at 0.010 gr/dscf. When cement is being unloaded to Silo #4, the system for unloading to Silos 1 and 2, day bin, and the storage dome (designated as EU 001), will not operate. EU001 is controlled by a 13,000 acfm baghouse and is permitted at 0.02 gr/dscf. The previous PTE permit calculation for EU001 assumes operation at 8760 hr/yr. Because the new unit (EU 014) will not be allowed to operate at the same time as EU 001, there will not be an increase in the Potential to Emit (PTE) emissions. If the new unit (EU 014) is operated there would be a decrease in PTE emissions. However, PTE assumes the worst case operating scenario. The worst case operating scenario would be to have the existing unit (EU 001) operate, 8760 hours per hours, at a limit of 0.02 gr/dscf and to not have the new unit (EU 014) operate at all during the year with its 0.010 gr/dscf limit. If EU 014 were to operate, the facility PTE would decrease.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

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

Subject Item: Total Facility

What to do	Why to do it
Modeling for PM10: Any increase in PM10 emissions beyond modeled conditions associated with the emission units and stacks in the SIP shall be modeled at the new predicted PM10 emission rates to determine the impact on the NAAQS.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Remodeling for Attainment Demonstration: The Permittee shall submit to the Division Manager for approval any revisions of stack heights and other parameters relied upon in the modeling showing attainment with the PM10 NAAQS. The stack information submitted to the Division Manager shall include, at a minimum, the location and height of the stacks, nearby building dimensions, and the exit velocity and temperature of the gases emitted. The proposal shall be submitted no later than 90 days before beginning actual construction of the stack or associated emission unit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan(SIP)
General Operating and Maintenance Requirements for SIP: The Permittee shall operate and maintain the process 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 Red Rock Road portion of the PM10 nonattainment area will attain compliance with the PM10 NAAQS.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping for SIP: Retain all records at the stationary source for a period of five (5) years from the date of the required monitoring or report that corresponds with a State Implementation Plan Title I Condition.	Title I Condition:Recordkeeping for the MN State Implementation Plan(SIP) for PM10 Requirements
Clamshell unloading system: The Permittee shall remove the clamshell unloading system by April 1, 1998.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Shutdown or Breakdown of Pollution Control Equipment: In the 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: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Operation and Maintenance Plan: The Permittee shall submit an O & M Plan which shall include the information for the following control equipment: CE001-CE005, and CE011-CE014. The Plan is due 90 days after permit issuance. The Division Manager may require additions or changes to the O & M Plan when granting approval. The Permittee will be given an opportunity to comment on any required changes to the Plan before granted approval of the Plan. The Plan may be amended with the Division Manager's written approval. Upon approval, the Plan shall be an enforceable part of the permit and the Permittee shall comply with all parts of the Plan.	Minn. R. 7007.0800, subp. 2
Description of the Operation and Maintenance Plan: The O & M Plan shall include, for each pollution control equipment listed above: the parameters to be monitored and the parameters ranges to be used; corrective action procedures to be followed to return the control equipment to within specified range(s); corrective action procedures to be followed in the event of a breakdown; a description of inspection procedures to be followed; and records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 2
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Shutdowns: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any process or control equipment if the shutdown would cause an increase in the emissions of any regulated air pollutant. At the time of notification, notify the Commissioner of the cause of the shutdown and the estimated duration. Notify the Commissioner again when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdowns: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any process or control equipment if the breakdown causes an increase in the emissions of any regulated air pollutant. At the time of notification or as soon thereafter as possible, the permittee shall also notify the Commissioner of the cause of the breakdown and the estimated duration. Notify the Commissioner again when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Oral Notification of Deviations Endangering Human Health or the Environment: As soon as possible after a discovery, notify the Commissioner orally or by facsimile of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Written 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: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
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)
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
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)
Record keeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart 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)
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 federally enforceable.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Emissions Inventory Report: due 91 days after end of each calendar year starting 04/14/98 (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

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: GP 001 Truck Traffic**Associated Items:** FS 006 Paved road emissions from cement/employee traffic & wind erosion emissions□□

FS 007 Paved road emissions from cement truck traffic only

FS 008 Paved road emissions from cement truck traffic only

FS 010 Paved road emissions from cement truck traffic and employee parking lot

What to do	Why to do it
Truck Traffic: less than or equal to 19,800 trucks/year using 12-month Rolling Sum	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Truck Traffic: less than or equal to 190 trucks/day	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Monitoring of Truck Traffic: The Permittee shall record and maintain records on site of the truck traffic per day and 12-month rolling sum of total truck traffic on a monthly basis.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping of Truck Traffic: The Permittee shall record on a daily basis the number of trucks per day.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping of Truck Traffic: The Permittee shall record the 12-month rolling sum of truck traffic by the 15th day of each month for the preceding month.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 001**Associated Items:** EU 001 Pneumatic Unloading to Silos 1 & 2, Day Bin, Storage Dome

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.02 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 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.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Monitoring of pressure drop range: The Permittee shall observe and record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (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.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5
Operation: EU 001 may only operate, while EU 014 is not in operation. EU 014 and EU 001 may not operate simultaneously.	Minn. R. 7007.0800, subp. 2
Recordkeeping of hours of operation: The Permittee shall record and maintain the hours of operation of EU 001.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 002**Associated Items:** EU 002 Silos 1 & 2, Day Bin Storage Elevator

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.02 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 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.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Monitoring of pressure drop range: The Permittee shall observe and record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (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.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 003**Associated Items:** EU 003 Truck Loadout Spout 01

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.02 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 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.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Monitoring of pressure drop range: The Permittee shall observe and record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (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.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 004**Associated Items:** EU 004 Storage Dome (next to)

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.02 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 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.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Monitoring of pressure drop range: The Permittee shall observe and record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Visible Emissions: The Permittee shall check the SV 004 associated with CE 004 for visible emissions when operating during daylight hours, on a daily basis.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 005**Associated Items:** EU 005 Storage Dome (on top)

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.02 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 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.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Monitoring of pressure drop range: The Permittee shall observe and record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Visible Emissions: The Permittee shall check the SV 005 associated with CE 005 for visible emissions when operating during daylight hours, on a daily basis.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 011**Associated Items:** EU 011 Pneumatic Unloading System- Auxiliary Fabric Filter

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than 0.01 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than 0.01 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Submit: due 30 days after 04/14/1998 vendor certification of performance. If the certification is acceptable, then the certification will be acknowledge in writing by the Division Manager.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and State Implementation Plan (SIP)
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping of pressure drop range: The Permittee shall record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Visible Emissions: The Permittee shall check the SV 011 associated with CE 011 for visible emissions when operating during daylight hours, on a daily basis.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 012**Associated Items:** EU 012 Truck Loadout Spout 02

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.02 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 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.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Submit: due 30 days after 04/14/1998 for Vendor Certification. If the certification is acceptable, then the certification will be acknowledge in writing by the Division Manager.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and State Implementation Plan (SIP)
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping of pressure drop range: The Permittee shall record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Visible Emissions: The Permittee shall check the SV 012 associated with CE 012 for visible emissions when operating during daylight hours, on a daily basis.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 013**Associated Items:** EU 013 Pneumatic Unloader Vacuum Pump

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.010 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAQSS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 0.010 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping of pressure drop range: The Permittee shall record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Visible Emissions: The Permittee shall check the SV 013 associated with CE 013 for visible emissions when operating during daylight hours, on a daily basis.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

Subject Item: SV 014

Associated Items: EU 014 Silo #4

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.010 grains/dry standard cubic foot	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Total Particulate Matter: less than or equal to 0.010 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1 (A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1 (B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Submit: due 30 days after 05/14/2002 vendor certification of performance. If the certification is acceptable, then the certification will be acknowledge in writing by the Division Manager.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and State Implementation Plan (SIP)
Pressure Drop: The Permittee shall submit to the Agency an operating range for the pressure drop for this pollution control equipment after the Permittee has accumulated 30 days of daily pressure drop readings but no later than 90 days after permit issuance. Upon approval by the Division Manager, it will become an enforceable part of the permit.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping of pressure drop range: The Permittee shall record pressure drop readings once per day, if in operation.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Recordkeeping: The Permittee shall record and maintain a monthly log of inspections of the baghouse filters and a description of any repairs or maintenance that took place.	Title I Condition: SIP for PM10 NAAQS 40 CFR pt. 50 and MN State Implementation Plan (SIP)
Visible Emissions: The Permittee shall check the SV 014 associated with CE 014 for visible emissions when operating during daylight hours, on a daily basis.	Minn. R. 7007.0800, subp. 4
Recordkeeping of Visible Emissions (VE): The Permittee shall keep records on the time and date of VE inspection, whether or not any VEs were observed, and if corrective action was needed. If visible emissions are observed, the Permittee shall take all practical steps to modify operations to reduce the emission and shall take corrective action to eliminate visible emissions prior to the following business day, or prior to the next day the emission unit, that is being controlled, is operated.	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall follow the Operation and Maintenance plan for the fabric filter and take corrective actions as soon as possible to eliminate any problem associated with the control equipment. The Permittee shall keep a record of the corrective actions taken.	Minn. R. 7007.0800, subp. 5
Operation: EU 014 may only operate, while EU 001 is not in operation. EU 014 and EU 001 may not operate simultaneously.	Minn. R. 7007.0800, subp. 2
Recordkeeping of hours of operation: The Permittee shall record and maintain the hours of operation of EU 014.	Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal
Permit Number: 12300353 - 002

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

What to send	When to send	Portion of Facility Affected
Operation and Maintenance Plan	due 90 days after 04/14/1998 . The Permittee shall provide to the Agency an Operation and Maintenance (O & M) Plan for review and approval by the Division Manager.	Total Facility

TABLE B: RECURRENT SUBMITTALS

05/07/02

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 002

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 04/14/1998 . State Implementation Plan for PM10 shall be reported semiannually with the semiannual Deviations Report as required in this permit. Reporting for these conditions shall occur even if there were no deviations for the reporting period.	Total Facility
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 04/14/1998 . 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 there are no deviations during a report period, the Permittee shall submit the report stating there are no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 04/14/1998 (for the previous calendar year). To be submitted on a form approved by the Commissioner. The report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353-001

Appendix B

Parameters Relied Upon in Modeling

Source Name	Control Equipment	Emission Unit Number	SV ID	Stack Height (feet)	Stack Height (m)	Stack Dia. (feet)	Stack Dia. (m)	Stack Exit Velocity (m/s)	Flow Rate (acfm)	Exit Temp (F)	Exit Temp (K)	Grain Loading (gr/dscf)	Hours of Oper. (hrs/yr)	PM10 Emission (lb/hr)
Pneumatic Unloading to Silos 1 & 2, Day Bin, Storage Dome	fabric filter (CE001)	1	001	65	19.8	2.58	0.79	12.60	13,000	105	314	0.020	8760	2.08
Silos 1 & 2, Day Bin, Elevator	fabric filter (CE002)	2	002	65	19.8	2.58	0.79	7.17	7,400	105	314	0.020	8760	1.19
Truck Loadout Spout 01	fabric filter (CE003)	3	003	45	13.7	1.92	0.58	4.40	2,500	105	314	0.020	8760	0.40
Truck Loadout Spout 02	fabric filter (CE012)	12	012	45	13.7	1.67	0.51	5.80	2,500	105	314	0.020	8760	0.40
Storage Dome (next to)	fabric filter (CE004)	4	004	65	19.8	2.7647	0.84	22.85	27,000	105	314	0.020	8760	4.33
Storage Dome (on top)	fabric filter (CE005)	5	005	80	24.4	1.00	0.30	18.14	2,800	105	314	0.020	8760	0.45
Pneumatic Unloading System - Auxiliary Fabric Filter	fabric filter (CE 011)	11	011	10	3.0	1.40	0.43	13.29	4,000	105	314	0.010	8760	0.32
Pneumatic Unloading System Vacuum Pump	Fabric filter (CE 013)	13	013	6.5	2.0	1.44	0.44	29.22	9,386	105	314	0.010	8760	0.80
Pneumatic Unloading to	Fabric Filter	14	014	105	32.0	2.20	0.67	16.70	12,500	105	314	0.010	8760	1.00

[illegible]

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 12300353-002

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

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 5032)
Lafarge Corporation – US Cement Group P.O. Box 887 Southfield, MI 48037 (248) 354-9050	Lafarge Corporation - Red Rock Terminal 1363 Red Rock Road St. Paul, Minnesota 55119-6012 (651) 739-2743

1.2. Description of the Facility

Lafarge Corporation receives, transfers, stores, and trucks out cement. Lafarge is located in a nonattainment area for particular matter less than 10 microns (PM₁₀). The PM₁₀ emissions sources at Lafarge Corporation include seven baghouses: one for the pneumatic loading to silos, day bin, storage dome; one for the silos, day bin and storage elevator; one for the existing truck loadout spout 01; one for the new truck loadout spout 02; one for the storage dome (next to); one for the storage dome (on top); and one for the auxiliary pneumatic unloading system. The fugitive emissions from the facility include cement truck traffic and employee parking lot.

1.3. Description of any changes allowed with this permit issuance

This permit action responds to two Major Permit amendment application requests.

In March 11, 2000, Lafarge submitted a major amendment application request. After the total facility permit was issued, Lafarge determined that an existing pneumatic vacuum pump had been inadvertently omitted from the total facility permit. The pneumatic vacuum pump was existing and already controlled by a baghouse. The Minnesota Pollution Control Agency (MPCA) reviewed the application. The facility modeling was re-run. Based on the addition of the pneumatic vacuum pump unit, the total facility modeling conclusions were not changed. U.S. Environmental Protection Agency (EPA) was consulted. EPA advised that a major amendment was not needed to include this existing unit. EPA recommended that the pneumatic

vacuum pump unit be added into the permit during the next major amendment. Hence, the emission unit and baghouse (EU 013/SV 013/CE 013) is being added at this time.

In addition, this major amendment authorizes the additional emission point (EU 014/SV 014) associated with a new cement silo (Silo #4). The silo emissions are to be controlled by a 12,500 acfm baghouse (CE 014). The new baghouse will be located on the top of the silo. The silo will be filled, pneumatically, from barges bringing cement to the terminal. The new silo baghouse will be permitted at 0.01 gr/dscf. When cement is being unloaded to Silo #4, the system for unloading to Silos 1 and 2, day bin, and the storage dome (designated as EU 001), will not operate. EU001 is controlled by a 13,000 acfm baghouse and is permitted at 0.02 gr/dscf. The previous Potential to Emit (PTE) permit calculation for EU001 assumes operation at 8760 hr/yr. Because the new unit (EU 014) will not be allowed to operate at the same time as EU 001, there will not be an increase in the PTE emissions. If the new unit (EU 014) is operated there would be a decrease in PTE emissions. However, PTE assumes the worst case operating scenario. The worst case operating scenario would be to have the existing unit (EU 001) operate, 8760 hours per hours, at a limit of 0.02 gr/dscf and to not have the new unit (EU 014) operate at all during the year with its 0.01 gr/dscf limit. If EU 014 were to operate, the facility PTE would decrease.

1.4. Description of all amendments issued since the issuance of the last total facility permit and to be included in the State Permit.

Permit Number and Issuance Date	Action Authorized
2084-87-OT-1 (July 31, 1987)	Total Facility Permit
Amendment 1 to 2084-87-OT-1 (July 7, 1989)	Allowed the installation and operation of a 35,000 ton storage dome.
Administrative Order (February 2, 1996)	Proceedings that was developed and Implemented a State Implementation Plan (SIP) for Ramsey County PM ₁₀ Nonattainment Area to demonstrate, attain and maintain compliance with NAAQS for PM ₁₀ .
12300353-001 (April 14, 1998)	State Total Facility Permit
12300353-002 (May, 2002)	Major Amendment for addition of EU 013 and EU 014 (with baghouses).

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU #	SV #	Emission Unit Description	PM Tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Pb tpy	Single HAP Tpy	All HAPs tpy
001	001	Pneumatic Unloading to Silos 1 & 2, Day Bin, Storage Dome	9.123	9.123	0.0	0.0	0.0	0.0	0.0	0.0	0.0
002	002	Silos 1 & 2, Day Bin, Storage Dome	5.21	5.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
003	003	Truck Loadout Station	1.75	1.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
012	012	Truck Loadout Station	1.75	1.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
004	004	Storage Dome (next to)	18.948	18.948	0.0	0.0	0.0	0.0	0.0	0.0	0.0
005	005	Storage Dome (on top)	1.965	1.965	0.0	0.0	0.0	0.0	0.0	0.0	0.0
011	011	Auxiliary Pneumatic Unloading System	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GP 001	N/A	Truck Traffic	1.73	1.73	0.0	0.0	0.0	0.0	0.0	0.0	0.0
013	013	Pneumatic Unloading Vacuum Pump	3.52	3.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
014	014	Silo #4	4.67*	4.67*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Total	45.35	45.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	PM Tpy	PM ₁₀ Tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC Tpy	Pb tpy	Single HAP Tpy	All HAPs tpy
Total Facility Limited Potential Emissions*	45.35	45.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995/1996 Total Facility Actual Emissions*	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* Silo #4 4.67 tpy emissions are listed above, but not included in the total facility emissions. Under worst case PTE, EU 001 would operate all 8760 hours per year for a 9.12 tpy. In that scenario, EU 014 would not operate at all. If EU 014 were to operate, the total facility PTE would decrease.

Table 2. Total Facility (TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD			PM, CO, NO _x , SO ₂ , VOC
NAAR		PM ₁₀	
Part 70 Permit Program		PM ₁₀	

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

2. Regulatory and/or Statutory Basis

Environmental Review: Minnesota rules require an environmental review if the potential emissions increase of any criteria pollutant exceeds 100 ton per year (tpy). There were no individual pollutant increases that exceeded 100 tpy. Hence, an Environmental Assessment Worksheet was not required for this amendment.

Federal New Source Performance Standards (NSPS): There is no federal NSPS for this type of unit.

This permit action is a major amendment. Minn. R. 7007.1500.

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

Regulatory Overview of Facility

*EU, GRP, or SV #	Applicable Regulations	**Comments:
SV 013, SV 014	40 CFR pt. 50 and MN State Implementation Plan	Lafarge shall attain, demonstrate, and maintain compliance with the applicable state and federal ambient air quality standards for PM ₁₀ .
SV 013, SV 014	Minn. R. 7011.0700-7011.0735	Standards of Performance for Industrial Equipment This standard includes limits for particulate matter and opacity
SV 001, SV 014	Minn. R. 7007.0800, subp. 2	EU 001 and EU 014 cannot operate simultaneously.

3. Technical Information

3a) Calculations:

$9,368 \text{ dscf/min} \times 0.01 \text{ gr/dscf} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ lb/grain} \times 1 \text{ ton/pound} = 3.52 \text{ tons/year}$

$12,500 \text{ dscf/min} \times 0.01 \text{ gr/dscf} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ lb/grain} \times 1 \text{ ton/pound} = 4.67 \text{ tons/year}$

3b) Pollution Control Equipment:

For the new baghouse (CE 014), the Permittee will submit the vendor certification of performance within 30 days of this permit amendment issuance. This vendor certification has been previously accepted by the MPCA. The grain loading was applied to determine potential emissions for each baghouse therefore, there are applicable requirements associated with the control equipment.

Lafarge will observe and record the pressure drop across the particular filter in inches of water and check for visible emission on a daily basis for each piece of the listed pollution control equipment in this permit. If any visible emissions are observed or pressure drop exceeds its range as required by the permit, then the Permittee will take corrective actions as soon as possible to eliminate these problems. Reading the pressure drop and checking for visible emissions on a daily basis will be used as indicators to determine if the pollution control equipment is operating properly.

3c) Modeling

Lafarge submitted air dispersion modeling to the MPCA to show compliance with the PM₁₀ National Ambient Air Quality Standard (NAAQS). The modeling was an attempt to demonstrate attainment with the NAAQS for PM₁₀ in the designated nonattainment area. On March 22, 2002, the revised modeling analysis showed modeled compliance with the PM₁₀ NAAQS. EPA Region 5 staff agreed that a modeling analysis is not required in the technical support document for the addition of Silo #4. The attached modeling technical support document will be supported to EPA as part of the State Implementation Plan.

4. Conclusion

Based on the information provided by the Lafarge Corporation, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300353-002 (AQD File No. 2084) and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota rules.

Staff Members on Permit Team:

Staff Engineer: Bruce Braaten at (507) 281-7762

Modeling Staff: Margaret McCourtney at (651) 297-7894

SIP Staff: Stuart Arkley at (651) 296-7774

Attachment: Modeling technical support document

Office Memorandum

DATE : March 22, 2002

TO : Bruce Braaten – Majors & Remediation
Stuart Arkley - Policy & Planning

FROM : Margaret McCourtney – Environmental Outcomes

PHONE : 651/297-7894

SUBJECT : **Technical Support Document for State Implementation Plan**
Lafarge - Red Rock Road addition of new PM₁₀ emission point (SV014) associated with new cement silo

Lafarge Corporation has submitted a permit application proposing to add a new PM₁₀ emission point associated with a new cement silo at its Red Rock Road Terminal. This source is located in Minnesota's PM₁₀ non-attainment area, in St. Paul. Thus, the U.S. Environmental Protection Agency (EPA) requests technical support that the new source will not adversely impact the area.

The new emission point is Pneumatic Unloading to Silo 4 (SV014)¹. This source will not operate at the same time as an existing PM₁₀ emission point, Pneumatic Unloading to Silos 1 & 2, Day Bin, Storage Dome (SV001). The permit will limit the operation of the facility to this operating scenario.

The emission rates and dispersion characteristics of SV001 are worse than for the proposed SV014. SV001 was included in the modeling demonstration showing attainment of the PM₁₀ National Ambient Air Quality Standards in July 1998. It can be concluded that the addition of SV014, with the operating restriction mentioned above, should result in more favorable dispersion, thus strengthening the State Implementation Plan (SIP) overall. Table 1 compares the parameters of SV014 and SV001:

Table 1 – Parameters of Affected Emission Points		
	SV001 Pneumatic Unloading to Silos 1 & 2	SV014 Pneumatic Unloading to Silo 4
Emission Rate (lb/hr & tons/yr)	2.08 & 9.12	1.00 & 4.39
Stack Release Height (m)	19.8	32.0
Stack Temperature (K)	314	314
Stack Release Direction	Horizontal	Horizontal
Stack Exit Velocity (m/s)	12.6	16.7
Stack Diameter (m)	0.79	0.67
Stack Location (UTM)*	498453.7, 4971763.4	498423.5, 4971755.5

*The total distance between these two sources is 31 meters

¹ Although this technical support document uses the "SV_" naming convention for emission points in the permit, the original SIP used the "LAF_" naming convention. There is a direct correlation between the "SV_" number and "LAF_" number. For example, SV_001 = LAF_001.

Table 3, attached, contains a complete description of all the point sources at the Lafarge – Red Rock Road facility. The fugitive emissions were not repeated here.

cc: Bill Voschell, Lafarge Corporation
Kent Berry, EQM
AQ File #2084
SIP File #4.3c

Table 3 – Point Source Summary for Lafarge Red Rock Road Terminal

Facility Name: Lafarge Corporation																			
Source Name	Control Equipment	Stack Parameters									Outlet Grain Loading (gr/dscf)	Hours of Operation (hrs/yr)	PM10 Emission Rate (lb/hr)	PM10 Emission Rate (tons/yr)	Hours Modeled	24-hr PM10 Emission Rate (g/s)	Hours Modeled	PM10 Emission Rate (g/s)	Comments
		SV ID	Height (feet)	Height (m)	Dia. (feet)	Dia. (m)	Flow Rate (acfm)	Exit Vel. (m/s)	Exit Temp. (F)	Exit Temp. (K)									
Pneumatic Unloading to Silos 1 & 2, Day Bin, Storage Dome	fabric filter	SV_001	65	19.8	2.58	0.79	13,000	12.60	105	314	0.020	8760	2.08	9.123	24	0.262	8760	0.263	Source moved
Silos 1 & 2, Day Bin, Elevator	fabric filter	SV_002	65	19.8	2.58	0.79	7,400	7.17	105	314	0.020	8760	1.19	5.193	24	0.149	8760	0.150	
Truck Loadout Spout 01	fabric filter	SV_003	45	13.7	1.92	0.58	2,500	4.40	105	314	0.020	8760	0.40	1.754	24	0.050	8760	0.051	
Truck Loadout Spout 02 (new)	fabric filter	SV_012	45	13.7	1.67	0.51	2,500	5.80	105	314	0.020	8760	0.40	1.754	24	0.050	8760	0.051	
Storage Dome (next to)	fabric filter	SV_004	65	19.8	2.76	0.84	27,000	22.85	105	314	0.020	8760	4.33	18.948	24	0.545	8760	0.546	dia: 24" x 36"
Storage Dome (on top)	fabric filter	SV_005	80	24.4	1.00	0.30	2,800	18.14	105	314	0.020	8760	0.45	1.965	24	0.057	8760	0.057	dia: 10.75" x 10.5"
Pneumatic Unloading System Auxillary Fabric Filter	fabric filter	SV_011	10	3.0	1.40	0.43	4,000	13.29	105	314	0.010	8760	0.32	1.404	24	0.040	8760	0.040	dia: 20" x 11"
Pneumatic Unloading System Vacuum Pump	fabric filter	SV_013	6.5	2.0	1.44	0.44	9,368	29.22	105	314	0.011	8760	0.80	3.517	24	0.101	8760	0.101	
Pneumatic Unloading to Silo 4	fabric filter	SV_014	105	32.0	2.20	0.67	12,500	16.70	105	314	0.010	8760	1.00	4.386	24	0.126	8760	0.126	dia: 1.78' x 2.34'
TOTAL													10.969	48.045					

Permit Action Number:

Date: 1/20/2004

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