

**AIR EMISSION PERMIT NO. 12300353- 001
IS ISSUED TO**

Lafarge Corporation - US Cement Group

LAFARGE CORPORATION - RED ROCK TERMINAL
1363 Red Rock Road
St. Paul, Ramsey County, Minnesota 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	September 19, 1995
Major Permit Amendment	September 27, 1997
Moderate Permit Amendment	January 7, 1998

This permit authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit 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: April 14, 1998

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

Michael J. Sandusky
Division Manager
Air Quality Division

for Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

ASO:lao

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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	(612)296-6300
Outside Metro Area	1-800-657-3864
TTY	(612)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. Certain requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to:

1. Any national ambient air quality standards adopted under section 109 of the Clean Air Act or increment or visibility under Part C of Title I of the Clean Air Act,
2. Any state ambient air quality standard under Minn. R. ch. 7009, and
3. The state noise pollution control rules, Minn. R. ch. 7030

FACILITY DESCRIPTION:

Lafarge Corporation receives, transfers, stores, and trucks out cement. Lafarge is located in a nonattainment area for Particulate Matter less than 10 microns (PM_{10}). The PM_{10} 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.

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

Subject Item: Total Facility

What to do	Why to do it
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-CE012. 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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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)
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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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 Permit Issuance 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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

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 Permit Issuance 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 B: SUBMITTALS

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal
Permit Number: 12300353 - 001

Table B lists the submittals you must send to the Commissioner. Table B is divided into two sections, for source-specific submittal requirements and for submittals required of all permittees. Source-specific submittals are further organized as either one-time only or recurrent requirements. You may also be subject to additional reporting requirements contained in the compliance schedule located in Table C of this permit. All submittals must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Submittals which must be provided on standardized forms approved by the Commissioner are noted in Tables B and C.

Send any application for a permit or permit amendment to: Permit Information Coordinator, Permit Section, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4914. Also send the Permit Information Coordinator notices of: accumulated insignificant activities, installation of control equipment, replacement of an emissions unit, and changes that contravene a permit term.

Send all other submittals to: Compliance Tracking Coordinator, Compliance Determination Unit, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

What to send	When to send	Portion of Facility Affected
Notification	due 10 days after Startup of the pneumatic unloader. Written notification shall be send to the Division Manager of the date of startup of the pneumatic unloader. Startup means the setting into operation of the pneumatic unloader for any reason.	SV001
Operation and Maintenance Plan	due 90 days after Permit Issuance . 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

04/14/98

Facility Name: Lafarge Corporation - Red Rock Terminal

Permit Number: 12300353 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . 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 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 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 following Permit Issuance (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
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	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 (CE011)	11	011	10	3.0	1.40	0.43	13.29	4,000	105	314	0.010	8760	0.32

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 12300353-001

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

1. General Information

1.1. Applicant and Stationary Source Location:

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 (612)739-2743

1.2. Description of the facility

Lafarge Corporation has 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 19, 1995.

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.

The permit action described in this Technical Support Document is the issuance of a total facility operating permit 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.

Permit Action Number:
Date: 1/20/2004

1.3 Description of any changes allowed with this permit issuance

This permit action also responds to an application for a Major and Moderate Permit amendment. The permit applications are for the construction and operation of a pneumatic unloading system equipped with a baghouse to control cement transfer emissions at its Red Rock Cement Terminal. By implementing this system and reducing truck traffic at the facility, Lafarge demonstrated attainment of the National Ambient Air Quality Standards (NAAQS) for PM₁₀.

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 .

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU #	SV #	Emission Unit Description	PM tpy	PM10 tpy	SO2 tpy	NOx 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 (existing)	1.75	1.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
012	012	Truck Loadout Station (new)	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
GP001	N/A	Truck Traffic	1.73	1.73	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Total	41.83	41.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions*	41.83	41.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Facility Actual Emissions*	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 2. Total Facility(TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD			PM, CO, NOx, SO2, 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.

Permit Action Number:

Date: 1/20/2004

2. Regulatory and/or Statutory Basis

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

Regulatory Overview of Facility

*EU, GRP, or SV #	Applicable Regulations	**Comments:
Total Facility	Minn. R. chs. 7002, 7007, 7009, 7011, 7019, 7030, 40 CFR pt. 50	This section of Table A contains requirements that apply to all facilities in Minnesota. It also contains modeling requirements for PM ₁₀ , and SIP requirements.
Silos, Day Bin, Storage Domes, Truck Loadout station, Pneumatic unloading system EU 005, 007, 008, 009	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 001, 002, 003, 004, 005, 011, 012	Minn. R. 7011.0700-7011.0735	Standards of Performance for Industrial Equipment This standard includes limits for particulate matter and opacity

3. Technical Information

Emission Calculations for Lafarge Corporation

3a) Unrestricted Potential to Emit

The emissions were calculated for each emission unit operating at 8760 hours per year and the following is the PTE in tons per year using Minn. R. 7011.0715 for the stationary source:

PM	PM10	SO2	NOx	CO	VOC	Combined HAP
166.6	166.6	0.0	0.0	0.0	0.0	0.0

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3b) Actual Emissions

Lafarge Corporation actual annual emissions in tons per year as reported in the Emission Inventory for 1995/1996.

PM	PM10	SO2	NOx	CO	VOC	Combined HAP
0.84	0.84	0.0	0.0	0.0	0.0	0.0

3c) Limited Potential to emit

Based on restrictions imposed by the SIP

PM	PM10	SO2	NOx	CO	VOC	Combined HAP
41.83	41.83	0.0	0.0	0.0	0.0	0.0

3d) Calculation of a 12-month Rolling Sum

The truck traffic limit in this permit is expressed as a 12-month rolling sum . Lafarge must maintain records of the number of trucks per day including the 12-month rolling sum on a monthly basis.

3e) Pollution Control Equipment

Lafarge submitted to the Agency vendor certification of performance for the existing baghouses to determine that the baghouses can comply with the emission rates necessary to achieve modeled attainment for the PM₁₀ NAAQS. The certification was accepted by the Agency. For new baghouses, the Permittee will submit the vendor certification of performance within 30 days of permit issuance. 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.

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Lafarge will also submit within 90 days of permit issuance to the Division Manager for approval an Operation and Maintenance Plan. Upon approval, the Plan will be an enforceable part of the permit and Lafarge will comply with all parts of the Plan.

3f) Modeling

Lafarge submitted air dispersion modeling to the Agency 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 January 20, 1998, the revised modeling analysis showed modeled compliance with the PM₁₀ NAAQS. The following assumptions were made in the modeling analysis in order to show modeled compliance:

- a. The stack parameters and emission rates are as indicted in the attached Table 1;
- b. Stacks are vertically emitting except for LAF_001, LAF_002 and LAF_011;
- c. Truck traffic is limited to 19,800 trucks/year based on a 12-month rolling sum and 190 trucks/day.

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. 12300353-001 (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: The permit team wrote and/or contributed to the Air Emission Permit, and the TSD. If you have any questions regarding this Air Emission Permit or this document, please contact the following:

Staff Engineer:	Amrill Okonkwo at (612)296-7009
Enforcement Staff:	Robert Berg at (612)296-7640
CERC Staff:	Kris Cole at (612)297-7152
Modeling Staff:	Margaret McCourtney at (612)297-7894
SIP Staff:	Gordon Anderson at (612)296-7667

Attachment: CD-01 Forms
GI-07, Facility Emission Summary
Calculations spreadsheet
Modeling results on diskette

Permit Action Number:
Date: 1/20/2004