

PC MACT Operations and Maintenance Plan FG CMNT STR LOAD

**Sources: EU: STORE UNIT 2, STORE UNIT 3, STORE UNIT 4 BOAT,
STORE UNIT 4 RAIL, BULK LD TRUCK**

1.0 Source Description

The FG CMNT STR LOAD Systems are used to prepare finished cement products for sale and shipping. Its main system component is:

- A cement transport, storage, and loading system.

2.0 System Emission Points and Air Pollution Control Equipment

During FG CMNT STR LOAD System operations, particulate matter is emitted at several emission points. The system includes a number of fabric filters to control particulate matter emissions during cement transfer and storage operations. The following table summarizes system emission points and applicable air pollution control devices (APCDs), as well as the visual inspection interval (see Section 6.0):

Emission Point #	Description	Air Pollution Control Device	Equipment #	VE Inspection Interval
570DC01	Dust collector, #2 storage pumping area	Fabric Filter #1	570DC01	Monthly
570DC02	Dust collector, #3 storage pumping area	Fabric Filter #2	570DC02	Monthly
46-474	Dust collector, bottom load to ships, #4 storage	Fabric Filter #7	46-474	Monthly
46-475	Dust collector, bottom load to ships, #4 storage	Fabric Filter #8	46-475	Monthly
46-476	Dust collector, station 21S	Fabric Filter	46-476	Monthly
46-710B	Dust collector, silo filler vent, truck/rail loading bldg	Fabric Filter	46-710B	Monthly
571DC05	Dust collector, truck loading, truck loading bldg	dust collector	571DC05	Monthly
50-415	Dust collector, silo vents, #4 storage silos	Fabric Filter #3	50-415	Monthly
50-416	Dust collector, silo vents, #4 storage silos	Fabric Filter #6	50-416	Monthly
50-417	Dust collector, silo vents, #4 storage silos	Fabric Filter #7	50-417	Monthly
50-418	Dust collector, silo vents, #4 storage silos	Fabric Filter #8	50-418	Monthly
50-419	Dust collector, silo vents, #4 storage silos	Fabric Filter #9	50-419	Monthly
50-420	Dust collector, silo vents, #4 storage silos	Fabric Filter #1	50-420	Monthly

50-422	Dust collector, silo vents, #4 storage silos	Fabric Filter #1	50-422	Monthly
50-423	Dust collector, silo vents, #4 storage silos	Fabric Filter #1	50-423	Monthly
50-424	Dust collector, silo vents, #4 storage silos	Fabric Filter #1	50-424	Monthly
50-425	Dust collector, silo vents, #4 storage silos	Fabric Filter #1	50-425	Monthly
50-426	Dust collector, silo vents, #4 storage silos	Fabric Filter	50-426	Monthly
50-427	Dust collector, silo vents, #4 storage silos	Fabric Filter #17	50-427	Monthly
50-428	Dust collector, silo vents, #4 storage silos	Fabric Filter #18	50-428	Monthly
574DC01	Dust collector, rail loading, rail loading bldg	Fabric Filter #1	574DC01	Monthly
574DC02	Dust collector, rail loading, rail loading bldg	Fabric Filter #2	574DC02	Monthly
574DC03	Dust collector, rail loading, rail loading bldg	Fabric Filter #3 (loading spout)	574DC03	Monthly

3.0 Applicable Emission Limit

The emission limit applicable to the FG CMNT STR LOAD System is visible emissions must not exceed 10 percent opacity (40 CFR 63.1347 and 63.1348).

4.0 Operator Procedures for Minimizing Visible Emissions from the FG CMNT STR LOAD System during Normal FG CMNT STR LOAD System Operations

FG CMNT STR LOAD System operations are performed in accordance with the Lafarge Standard Operating Procedure (SOP) documents for Cement Transport/Storage, and Truck/Rail Loading. Applicable SOPs include the following:

- #2 Cement Storage Silo Fill System
- #3 Cement Storage Silo Fill system
- #4 Storage – Vessel Loading System

These procedures are kept in the plant's Environmental Department system. The SOPs discuss how the plant shall be operated, and are used for job-specific training. The tasks necessary to ensure proper operation of the FG CMNT STR LOAD System with minimum emissions are also included within the SOPs.

5.0 Preventive Maintenance

Preventative maintenance work orders are maintained on the Plant's Windows-based electronic maintenance management system, MAXIMO. Maintenance Department technicians perform preventative maintenance (PM) tasks on FG CMNT STR LOAD System equipment, including:

Equipment #	Equipment Name
Cement Storage Silo Groups 2, 3, 4/Truck-Rail Loading Building Exhausted to Stacks	
570DC01	Dust collector, #2 storage pumping area
	#2 storage, bins 24 to 33
570DC02	Dust collector, #3 storage pumping area
46-474	Dust collector, bottom load to ships, #4 storage
46-475	Dust collector, bottom load to ships, #4 storage
	#4 storage silos, bins 34 to 61
46-476	Dust collector, station 21S
46-710B	Dust collector, silo filler vent, truck loading bldg
46-762	Dust collector, silo filling/unloading, truck loading
571DC05	Dust collector, truck loading, truck loading bldg
50-415	Dust collector, silo vents, #4 storage silos
50-416	Dust collector, silo vents, #4 storage silos
50-417	Dust collector, silo vents, #4 storage silos
50-418	Dust collector, silo vents, #4 storage silos
50-419	Dust collector, silo vents, #4 storage silos
50-420	Dust collector, silo vents, #4 storage silos
50-422	Dust collector, silo vents, #4 storage silos
Equipment #	Equipment Name
Cement Storage Silo Groups 2, 3, 4/Truck-Rail Loading Building Exhausted to Stacks (Continued)	
50-423	Dust collector, silo vents, #4 storage silos
50-424	Dust collector, silo vents, #4 storage silos
50-425	Dust collector, silo vents, #4 storage silos
50-426	Dust collector, silo vents, #4 storage silos
50-427	Dust collector, silo vents, #4 storage silos
50-428	Dust collector, silo vents, #4 storage silos
574DC01	Dust collector, rail loading, rail loading bldg
574DC02	Dust collector, rail loading, rail loading bldg
574DC03	Dust collector, rail loading, rail loading bldg

The FG CMNT STR LOAD System PM schedule is maintained on MAXIMO. The PM schedules and the PM task lists for equipment in the FG CMNT STR LOAD System are based upon past experience with similar equipment and upon the manufacturer's documentation. When conducting PM activities, maintenance technicians use checklists from the MAXIMO database that list PM tasks, steps, and instructions. The technician completes the PM checklist and returns the form to the Maintenance Planner, who verifies completion of the checklist and logs the completed checklist into MAXIMO. Electronic verification of the completed checklist is maintained in the MAXIMO database for a minimum of five years following completion of the PM.

6.0 Monitoring Requirements

The FG CMNT STR LOAD System fabric filters emissions are monitored for opacity using the Methods described below.

6.1 *Periodic Method 22 Visible Emissions Monitoring Requirements*

The FG CMNT STR LOAD System must be tested for visible emissions once each month using the procedures described in USEPA Method 22 – Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares. Totally enclosed transfer points are exempt from this requirement. However, partially enclosed transfer points should be monitored by using this method on whatever building or enclosure surrounds the transfer location. The Method 22 tests will be conducted by trained observers while the FG CMNT STR LOAD Systems are in operation. The Shift Coordinator will schedule the Method 22 testing. Copies of the Method 22 procedures, Field Data Worksheets, and equipment needed to conduct the tests (stopwatch, etc.) will be maintained in the Environmental Department.

As noted in the Method 22 procedures, observers will take care to perform the test from the proper location relative to the source and the sun, as well as to avoid degraded visibility of emissions caused by improper background contrast, ambient lighting, and observer position relative to lighting and wind.

During the Method 22 test, the observer should determine the presence or absence of visible emissions at points above or beyond the fabric filter exhaust vents or transfer point. The duration of the Method 22 tests will be 10 minutes. Upon completion of the test, the observer will record the results on the Method 22 Field Data Worksheet, and submit the worksheet to the Production Coordinator, who will forward the results to the Environmental Department. The Environmental Department will maintain the Method 22 records for a period of 5 years.

If visible emissions are noted during a daily Method 22 test, a Method 9 test consisting of five 6-minute averages of opacity readings for that stack must be conducted within 1 hour. The observer will also initiate proper corrective actions within one hour by submitting a maintenance work order request to the MAXIMO maintenance control system.

Note: If monthly Method 22 tests indicate no visible emissions for six consecutive monthly tests, the test frequency may be reduced to once every six months. If no visible emissions are detected on the next six-month test, the test frequency may be reduced to once per year. Any time visible emissions are detected by these Method 22 tests, monthly testing must be resumed [40 CFR 63.1350(a)(4)(ii) & (iii)].

6.2 Periodic Method 9 Opacity Tests

Whenever visible emissions are observed during a Method 22 test of the FG CMNT STR LOAD System emissions sources, an opacity test using the procedures described in USEPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources must be performed to determine if the applicable opacity limit is being exceeded. If visible emissions were observed during a 10-minute Method 22 test, the Method 9 test must be conducted within 1 hour.

The Environmental Manager (or a designated representative) will ensure that trained and certified Method 9 observers are available each day the Method 22 testing is conducted on the FG CMNT STR LOAD Systems. Copies of the Method 9 procedures, Field Data Worksheets, and equipment needed to conduct the tests will be maintained in the Environmental Department.

As noted in the Method 9 procedures, observers will take care to perform the test from the proper location relative to the source and the sun, as well as to avoid degraded visibility of emissions caused by improper background contrast, ambient lighting, and observer position relative to lighting and wind.

During the Method 9 test, the observer should determine the opacity of visible emissions plume at points above or beyond the fabric filter exhaust vents and stacks. The Method 9 test must include five 6-minute averages of opacity. Upon completion of the test, the observer will record the results on the Method 9 Field Data Worksheet, and submit the worksheet to the Environmental Department. The Environmental Department will maintain the Method 9 records for a period of 5 years.

The observer will notify the Environmental Manager (or a designated representative) and initiate corrective action immediately if the Method 9 test indicates the opacity limit has been exceeded.

7.0 Periodic Review and Update of this Operations and Maintenance Plan

The Environmental Manager (or a designated representative) will review this FG CMNT STR LOAD System Operations and Maintenance Plan once per year for adequacy and currency. Documentation of the annual review or update will be retained in Environmental Department files for five years.

8.0 Operations and Maintenance Plan Revision History

<u>Revision</u>	<u>Date</u>	<u>Purpose</u>
1.0	February 2004	Initial plan generation
2.0	June 2008	Production Increase
3.0	October 2011	ROP Renewal