

PC MACT Operations and Maintenance Plan FG RAW MAT

Sources: Emission Units: RAW MATERIALS, ARM STOR BLDG, ARM FLY ASH

1.0 Source Description

The FG RAW MAT Systems are used to receive raw materials prior to feeding them into the Raw Mill System. Its main system components are:

- A flyash receiving and conveyor system that delivers flyash to the dome or daybin. The system includes compressors, hopper and airslide.
- Dome for storage of flyash. The system includes dome, compressors and nuematic conveyors.
- Day Bin for storage of flyash prior to delivery to the raw mill system. The system includes a bin and neumatic conveyor systems.
- ARM Storage Building for receiving, storage and conveyance to the raw mill system. The system includes storage building, receiving hopper, and conveyors.

2.0 System Emission Points and Air Pollution Control Equipment

During FG RAW MAT System operations, particulate matter is emitted at several emission points. The system includes conveyors, dome, day bin, and a number of fabric filters to control particulate matter emissions. 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
17-005	Dust collector, rail car	Fabric filter	17-005	N/A
17-045	Dust collector, ash hopper	Fabric filter	17-045	N/A
17-105	Dust collector, dome vent	Fabric filter	17-105	N/A
17-205	Dust collector, bin vent	Fabric filter	17-205	N/A
17-325	Dust collector, ash conveyor	Fabric filter	17-325	N/A
17-425	Dust collector, ash conveyor	Fabric filter	17-425	N/A

3.0 Applicable Emission Limits

The emission limits applicable to the FG RAW MAT Systems are the following:

- Visible emissions must not exceed 10 percent opacity.
- There shall be no visible fugitive emissions from the ARM Storage Building, equipment number: 18-921, doors will be kept shut during handling of iron sources.

4.0 Operator Procedures for Minimizing Visible Emissions from the FG RAW MAT System during Normal FG RAW MAT Operation

FG RAW MAT System operations are performed in accordance with the Lafarge Standard Operating Procedure (SOP) documents. Applicable SOPs include the following:

- Railcar Unloading to Day Bin – Normal Operation
- Railcar Unloading to Dome – Normal Operation
- Flyash Dome to Day Bin – Normal Operation
- Iron Ore Vessel Unloading and Reclaiming – Normal Operation

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 RAW MAT System while emitting the 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 the FG RAW MAT System equipment, including:

Equipment #	Equipment Name
Railcar Unloading System	
17-104	Fan
17-106	Fan
17-108	Plenum drive
17-010	Load chute
17-015	Compressor
17-021	Fan
17-035	Valve
17-036	Valve
Fly Ash Receiving System	
17-046	Blower
17-047	Blower
17-048	Fan
17-049	Fan
17-050	Blower
17-065	Line valve
17-067	Fan
17-070	Blower
17-077	Fan
17-085	Line valve
17-095	Compressor
17-096	Compressor
17-145	Line valve

Equipment #	Equipment Name
	Dome System
17-106	Fan
17-107	Fan
17-108	Plenum drive
	Day Bin System
17-206	Fan
17-207	Fan
17-208	Plenum drive
	Iron Ore Unloading
18-001	Vessel Unloading Hopper
18-015	Feeder Belt
18-020	Belt Conveyor
18-025	Tripper Belt
18-026	Tripper Belt
18-921	ARM Storage Building
	Iron Bin Fill System
18-102	Reclaim Hopper
18-110	Feeder Belt
18-120	Belt Conveyor
18-310	Weigh Feeder
18-205	Collector
18-206	Collector Fan
18-207	Reverse Air Fan
18-208	Blower Cyclor
18-210	Airlock Rotary
18-220	Belt Conveyor
20-274	Collector
20-453	Collector Fan
20-011	Iron Bin

The FG RAW MAT System PM schedule is maintained on MAXIMO. The PM schedules and the PM task lists for equipment in the FG RAW MAT 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 ARM Storage Building is monitored for opacity from fugitive emissions using the Methods described below.

6.1 *Periodic Method 22 Visible Emissions Monitoring Requirements*

The ARM Storage Building will be tested for visible emissions once each month on a reducing frequency using 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 ARM Storage Building is 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 the perimeter of the Iron Storage Hall in the Southeast corner of the building. 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 Method 22 test, operations within the ARM Storage Building shall be shutdown and the source of the fugitive emissions corrected prior to recommencement of the operation.

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)].

7.0 Periodic Review and Update of this Operations and Maintenance Plan

The Environmental Manager (or a designated representative) will review this FG RAW MAT 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