

Operations and Maintenance Plan FG FUEL HAND

**Sources: EU: BLD FUEL PILE, ALT FUEL PILE, FUEL PULV 19, FUEL PULV 20,
FUEL PULV 21, FUEL PULV 22, FUEL PULV 23**

1.0 Source Description

The FG FUEL HAND System receives, blends, stores, transports and pulverizes fuel used to fire the five rotary kilns. Its three main system components are:

- Coal and Coke blending system where coal and coke is blended and stockpiled. This system includes hoppers, conveyors and bins.
- Storage systems where the blended material is crushed and distributed to storage bins. This system includes crushers, conveyors and bins.
- Firing system where the blended material is milled and fed into the kilns. This system includes conveyors, pulverizers, feeders and feed pipes.
- Alternate fuel pile and building (plastics, wood), is fed by conveyor directly into burning zone of the indirect firing systems

2.0 System Emission Points and Air Pollution Control Equipment

During FG FUEL HAND 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):

Emission Point #	Description	Air Pollution Control Device	Equipment #	VE Inspection Interval
613DC01	Dust collector, fuel pulverizer 19	Fabric filter	613DC01	N/A
614DC01	Dust collector, fuel pulverizer 19	Fabric filter	614DC01	N/A
623DC01	Dust collector, fuel pulverizer 20	Fabric filter	623DC01	N/A
624DC01	Dust collector, fuel pulverizer 20	Fabric filter	624DC01	N/A
633DC01	Dust collector, fuel pulverizer 21	Fabric filter	633DC01	N/A
634DC01	Dust collector, fuel pulverizer 21	Fabric filter	634DC01	N/A
6A3DC01	Dust collector, fuel pulverizer 22	Fabric filter	6A3DC01	N/A
6A4DC01	Dust collector, fuel pulverizer 22	Fabric filter	6A4DC01	N/A
6B3DC01	Dust collector, fuel pulverizer 23	Fabric filter	6B3DC01	N/A
6B4DC01	Dust collector, fuel pulverizer 23	Fabric filter	6B4DC01	N/A

3.0 Applicable Emission Limit

The emission limits applicable to the FG FUEL HAND System is the following:

- Visible emissions must not exceed 10 percent opacity.

4.0 Operator Procedures for Minimizing Visible Emissions from the FG FUEL HAND System During Normal FG FUEL HAND System Operation

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

- Coal-Coke Blending
- Coal-Coke Storage
- Coal-Coke Firing System
- Alternate Fuel Feed 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 FUEL HAND 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 the FG FUEL HAND System equipment, including:

Equipment #	Equipment Name
	Blending System Equipment
74-031	Coal Hopper
74-101	Coal Belt
74-041	Coal Bin
74-104	Coal Scale Belt
74-032	Coke Hopper
74-102	Coke Belt
74-042	Coke Bin
74-105	Coke Scale Belt
74-103	Coal-Coke Stocking Belt
	Coal-Coke Storage System Equipment
36-002	Storage bin
36-004	Storage bin
36-005	Storage bin
37-001	Storage bin
37-002	Storage bin
36-021	Feeder
36-022	Feeder

36-023	Feeder
36-061	Belt
36-062	Belt
36-063	Belt
36-064	Belt
37-045	Belt
36-052	Crusher
36-081	Elevator
36-062	Elevator
	Coal-Coke Firing System
36-041	Scale Belt
36-042	Scale Belt
36-043	Scale Belt
37-024	Scale Belt
37-025	Scale Belt
613CR01	Pulverizer
623CR01	Pulverizer
633CR01	Pulverizer
6A3CR01	Pulverizer
6B3CR01	Pulverizer
614SC01	Screw Conveyor
624SC01	Screw Conveyor
634SC01	Screw Conveyor
6A4SC01	Screw Conveyor
6B4SC01	Screw Conveyor
614HO01	Storage Bin
624HO01	Storage Bin
634HO01	Storage Bin
6A4HO01	Storage Bin
6B4HO01	Storage Bin
614FE01	Weigh Feeder
624FE01	Weigh Feeder
634FE01	Weigh Feeder
6A4FE01	Weigh Feeder
6B4FE01	Weigh Feeder
	Alternate Fuel Feed System
18-071	Belt Conveyor

The FG FUEL HAND System PM schedule is maintained on MAXIMO. The PM schedules and the PM task lists for equipment in the FG FUEL HAND 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 Periodic Review and Update of this Operations and Maintenance Plan

The Environmental Manager (or a designated representative) will review this FG FUEL HAND 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.

7.0 Operations and Maintenance Plan Revision History

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