Lehigh Southwest Cement Company – Permanente Plant
OPERATIONS AND MAINTENANCE (O&M) PLAN

C O N T E N T S

T A B L E S

Page

A T T A C H M E N T S

Page

Lehigh Southwest Cement Company – Permanente Plant
OPERATIONS AND MAINTENANCE (O&M) PLAN OUTLINE

1.0 Introduction

1.1 Owner/Operator:

Lehigh Southwest Cement Company – Permanente Plant
24001 Stevens Creek Blvd.
Cupertino, CA 95014

Mr. Henrik Wesseling, Plant Manager
Mr. Scott Renfrew, Environmental Manager ((408) 996-4262)

1.2 Regulatory References for NESHAP O&M Plan

NESHAP Subpart A, Title 40 CFR Part 63

- Section 6(e)(1) Operation and maintenance requirements.
- Section 6(e)(2)
- Section 6(e)(3) Startup, shutdown, and malfunction plan.
- Section 6(f) Compliance with non-opacity emission standards.
- Section 6(h) Compliance with opacity and visible emission standards.
- Section 9(b)(2)
- Section 10(b) General recordkeeping requirements.
- Section 10(d) General reporting requirements.

NESHAP Subpart LLL, Title 40 CFR Part 63

- Section 1350(a)
- Section 1350(b)
- Section 1350(j)
- Section 1354(b)(4)
- Section 1354(b)(5)

1.3 Definitions per 40 CFR Part 63 Subpart A §63.2

The following terms as used herein are defined per NESHAP Subpart A, Title 40 CFR Part 63.2.

- *Fugitive emissions* mean those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- *Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner.

Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

- *Shutdown* means the cessation of operation of an affected source or portion of an effected source for any purpose.
- *Startup* means the setting in operation of an affected source or portion of an affected source for any purpose.
- *Visible emission* means the observation of an emission of opacity or optical density above the threshold of vision.

As presented in the Federal Register, Vol. 67, No. 236 Proposed Rule dated Dec. 9, 2002 Proposed Amendments to the General Provisions, page 72881, which states:

> Under our regulations, "malfunction" is defined as "any sudden, *infrequent*, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner." Only those events that meet this definition would be subject to the reporting requirement. During an event that meets this definition, the facility is not required to comply with otherwise applicable emission limits, and the SSM plan must specify alternative procedures which satisfy the general duty to minimize emissions. Minor or routine events that have no applicable impact on the ability of a source to meet the standard need not be classified by the source as a malfunction, addressed in the SSM plan, or included in periodic reports.

Accordingly, those events associated with routine startups and shutdowns are not identified as resulting from a malfunction.

1.4 Affected Sources at the Facility

Affected sources as defined in §63.1340(b) subject to Subpart LLL for a Portland cement plant which is a major source includes the following;

1) Each kiln;
2) Each clinker cooler;
3) Each raw mill;
4) Each finish mill
5) Each raw material, clinker, or finish product storage bin;
6) Each conveying system transfer point;
7) Each bagging system; and
8) Each bulk loading or unloading system.

Per §63.1340(c), the first affected source in the sequence of materials handling operations subject to Subpart LLL is the transfer point associated

with the conveyor transferring material from the raw storage to the raw mill. At Lehigh Southwest Cement Company's Permanente Plant, that would be the raw mill feeders. The other affected sources are defined as all sources from the raw mill circuit feed conveyor system, through the plant operating system to the bagging and bulk loading of final product. The primary and secondary crushers and the coal handling systems are not subject to the NESHAP. Included are all partially enclosed or unenclosed conveyor system transfer points. Excluded are totally enclosed conveying system transfer points.

See Table 1-1 for list of affected sources at this facility.

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
Kiln and Clinker Cooler	Preheater - Precalciner Kiln System	S-154	A-141	4-DC-7 / 22	YES	NO	NO
			A-142	4-DC-23 / 38	YES	NO	NO
	Clinker Cooler 5-CC-1	S-161	A-161	5-DC-11 / 20	YES	NO	NO
Raw Mills	Raw Mill 4-GM-1	S-141	A-141	4-DC-7 / 22	YES	NO	NO
	Raw Mill 1 Separator 4-SE-3 & Aux. Equip.	S-143	A-143	4-DC-3	NO	YES	NO
	Raw Mill 2 4-GM-2	S-142	A-142	4-DC-23 / 38	YES	NO	NO
	Raw Mill 2 Separator 4-SE-4 & Aux. Equip.	S-144	A-144	4-DC-4	NO	YES	NO
Finish Mills	6-RP-1 Roller Press and Peripherals	S-230	A-230	6-DC-2	NO	YES	NO
	Finish Mill (6-GM-1)	S-210	A-210	6-DC-17	NO	YES	NO
	6-GM-1 Air Separator (6-SE-1)	S-218	A-218	6-DC-19	NO	YES	NO

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
	Finish Mill 6GM3	S-412	A-218	6-DC-19	NO	YES	NO
	6-GM-2 Mill and Peripherals	S-220	A-220	6-DC-8	NO	YES	NO
	Separator (6-SE-2)	S-211	A-211	6-DC-12 / 18	NO	YES	NO
Other Affected Sources	Kiln Fuel Transport System (5-FK-1 / 5-FK-3)	S-171	A-171	5-DC-5	NO	NO	YES
	Precal Fuel Transport System (5-FK-2 / 5-FK-3)	S-172	A-172	5-DC-6	NO	NO	YES
	Raw Mill 4-GM-1 Feeders	S-134	A-134	3-DC-4 (4-S-1&3/4-WF-1&3 to 4-BC-1)	NO	NO	YES
	Raw Mill 4-GM-2 Feeders	S-135	A-135	3-DC-5 (4-S-2&4/4-WF-2&4 to 4-BC-2)	NO	NO	YES
	Kiln Feed Homogenizer System 5-S-1-2	S-151	A-151	5-DC-1 (5-AS-1 & 2 to 5-BE-1 & 2)	NO	NO	YES
			A-152	5-DC-2 (5-BE-1 &2 to 5-S-1 & 2)	NO	NO	YES

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
	Kiln Feed System	S-153	A-153	5-DC-3 (5-BE-3 & 4 to 5-AS-23 & 24)	NO	NO	YES
	Gravity Cooler 5-CC-2 5-CC-3	S-161	A-190	5-DC-90 (5-BC0-1 to 5-CC-2 & 3 / 5-DDC-2)	NO	NO	YES
	Clinker Silo A 5-S-11	S-162	A-162	5-DC-24 (5-BE-5 to 5-DDC-3 / 5-DDC-4 / 5-S-11)	NO	NO	YES
	Clinker Silo B 5-S-12	S-163	A-163	5-DC-25 (5-DDC-4 to 5-S-12)	NO	NO	YES
	Freelime Storage Bin	S-164	A-164	5-DC-23 (5-DDC-2 to 5-BE-5 / 5-DDC-5)	NO	NO	YES
	Clinker Transfer System	S-165	A-165	5-DC-27 (5-DDC-5 to 5-BC-1)	NO	NO	YES
				5-DC-28 (5-BC-1 to 6-BC-6)	NO	NO	YES
	Clinker Transfer Area (6-BC-1-3-6-7)	S-17	A-436	6-DC-49	NO	NO	YES
	Clinker Storage Hall Area	S-19	A-10	6-DC-45-46-47-48	NO	NO	YES

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
			A-447	6-DC-51 at 6-BC-1	NO	NO	YES
			A-448	6-DC-52 at 6-BC-1	NO	NO	YES
			A-449	6-DC-53 at 6-BC-1	NO	NO	YES
			A-450	6-DC-54 at 6-BC-1	NO	NO	YES
	Clinker Feeder 6-WF-1 (S-21)	S-21	A-13	6-DC-1	NO	NO	YES
	Concrete Storage Silo, Pressed Cake Bin (6-SS-2)	S-231	A-231	6-DC-3	NO	NO	YES
	Conveyor (6-BC-20) Additive Bins (6-SS-4-5-7-9)	S-240	A-240	6-DC-21	NO	NO	YES
	6-GM-1 Cake Feeder (6-WF-3)	S-242	A-242	6-DC-11	NO	NO	YES
	6-GM-1 Cake Conveyor (6-BC-13)	S-216	A-216	6-DC-13	NO	NO	YES
	6GM1 Cake Conveyor (6-BC-15)	S-217	A-217	6-DC-15	NO	NO	YES
	6-GM-1 Gypsum Feeder (6-WF-9)	S-245	A-245	6-DC-9	NO	NO	YES

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
	6GM1 Pozzolin Feeder (6-WF-7)	S-244	A-244	6-DC-7	NO	NO	YES
	6-GM-1 Reclaimed Cement Feeder (6-WF-5)	S-243	A-243	6-DC-5	NO	NO	YES
	Kiln Dust Additive Bin	S-414	A-414	6-DC-25	NO	NO	YES
	Finish Mill Building Conveyor 6-BC-23 6-SS-23	S-415	A-415	6-DC-23	NO	NO	YES
	Emergency Clinker Conveyor (5-DDC-1)	S-444	A-444	5-DDC-1 Water Spray	NO	NO	As available
	6-GM-2 Cake Feeder (6WF2)	S-221	A-221	6-DC-6	NO	NO	YES
	6-GM-2 Gypsum Feeder (6WF4)	S-222	A-222	6-DC-4	NO	NO	YES
	West Silo Top Cement Distribution Tower	S-45	A-433	7-DC-5	NO	NO	YES
	Middle West Silo Top Cement Distribution Tower	S-46	A-434	7-DC-6	NO	NO	YES
	East Silo Top Cement Distribution Tower	S-47	A-435	7-DC-7	NO	NO	YES

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
	Rail Loadout System	S-301	A-301	7-DC-9	NO	NO	YES
	Type II Mechanical Transfer System (7-BE-1 & 7-BE-2)	S-74	A-58	7-DC-8	NO	NO	YES
	Bulk Cement Loadout Tank #1 and #2	S-48	A-420	7-DC-16 at Bulk Tank #1	NO	NO	YES
			A-421	7-DC-17 at Bulk Tank #1	NO	NO	YES
			A-422	7-DC-18 at Bulk Tank #1	NO	NO	YES
			A-428	7-DC-11 top Bulk Tanks #1 & #2	NO	NO	YES
	Bulk Cement Loadout Tank #28	S-49	A-423	7-DC-12	NO	NO	YES
			A-424	7-DC-14	NO	NO	YES
			A-427	7-DC-19 top Bulk Tank #29	NO	NO	YES
			A-429	7-DC-10 top Bulk Tank #28	NO	NO	YES

Table 1-1
Sources Subject to Portland Cement Manufacturing NESHAP

Equipment Category	LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #	Subject to Daily Visual Emission Monitoring by Method 9 (30 min.)	Subject to Daily Visual Emission Monitoring by Method 22 (6 min.)	Subject to Monthly / Semi / Annual[1] Visual Emission Monitoring by Method 22 (1 min.)
	Bulk Cement Loadout Tank #29	S-50	A-425	7-DC-13	NO	NO	YES
			A-426	7-DC-15	NO	NO	YES
			A-427	7-DC-19	NO	NO	YES
			A-429	7-DC-10	NO	NO	YES
	Cement Packer #1	S-54	A-430	7-PDC-1	NO	NO	YES
	Cement Packer #2	S-55	A-431	7-PDC-2	NO	NO	YES

Note 1:
(i) The owner or operator must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to part 60 of this chapter. The test must be conducted while the affected source is in operation.
(ii) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semiannually for that affected source. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(iii) If no visible emissions are observed during the semi-annual test for any affected source, the owner or operator may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(iv) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions.

.

2.0 Procedures for Proper Operations and Maintenance (O & M) of Process and Pollution Control Equipment to Minimize Emissions during Normal Operations

2.1 General

40 CFR 63 Subpart A requires that sources be operated at all times in accordance with good air pollution control practices for minimizing emissions. The following sections describe, in general terms, the standard operating procedures (SOP) and preventive maintenance (PM) programs intended to minimize emissions for the affected sources.

2.2 Kiln, Clinker Cooler and Respective Pollution Control Equipment Preventive Maintenance

The sources and respective pollution control equipments for the kiln and clinker cooler are listed in Table 1-1. Preventive maintenance will be performed to assure conformance with emission limits, and meet product quality and equipment specification requirements. When the process operates at steady-state with high product quality, the emissions are minimized. Refer to SOP # 1 for the details of kiln, clinker cooler and respective pollution control equipment preventive maintenance.

2.3 Raw Mill, Finish Mill and Respective Pollution Control Equipment Preventive Maintenance

The sources and respective pollution control equipments for the raw mills and finish mills are listed in Table 1-1. Preventive maintenance will be performed to assure conformance with emission limits, and meet product quality and equipment specification requirements. Refer to SOP # 2 for the details of the raw mill, finish mill and respective pollution control equipment preventive maintenance.

2.4 Other Affected Sources (permitted) and Respective Pollution Control Equipment Preventive Maintenance

Preventive maintenance will be performed to assure conformance with emission limits and equipment specification requirements. The other affected sources are listed in Table 1-1. Refer to SOP # 3 and SOP # 4 for the details of preventive maintenance for other affected sources and their respective pollution control equipment.

3.0 Procedures for Kiln, Clinker Cooler and Respective Pollution Control Equipment O&M and Corrective Action During Startup, Shutdown and Malfunction (SSM) Events

3.1 General

For all affected sources and respective pollution control equipment identified in Table 1-1 for the kiln and clinker cooler, NESHAP Subpart A requires that

malfunctions be corrected as soon as practicable, in accordance with the procedures outlined herein.

3.2 Definition of SSM Event

Startups and shutdowns of the kiln and clinker cooler and associated auxiliary equipment in this process are recorded in the Control Room Shift Operations log. The kiln and clinker cooler are in startup or shutdown mode whenever the clinker rate is above or below 60% of representative operating level, respectively. A startup may take up to 96 hours, and a shutdown may take up to 24 hours before maintenance action can occur.

The sources and respective pollution control devices included in the startup or shutdown of the kiln and clinker cooler are listed in Table 3-1.

Table 3-1
Sources Included in the Startup and Shutdown of the Kiln and Clinker Cooler

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
Preheater -Precalciner Kiln System	S-154	A-141	4-DC-7 / 22
		A-142	4-DC-23 / 38
Clinker Cooler 5-CC-1	S-161	A-161	5-DC-11 / 20
Gravity Cooler 5-CC-2 5-CC-3	S-161	A-190	5-DC-90 (5-BC0-1 to 5-CC-2 & 3 / 5-DDC-2)
Freelime Storage Bin	S-164	A-164	5-DC-23 (5-DDC-2 to 5-BE-5 / 5-DDC-5)
Clinker Silo A 5-S-11*	S-162	A-162	5-DC-24 (5-BE-5 to 5-DDC-3 / 5-DDC-4 / 5-S-11)
Clinker Silo B 5-S-12*	S-163	A-163	5-DC-25 (5-DDC-4 to 5-S-12)
Kiln Fuel Transport System (5-FK-1 / 5-FK-3)	S-171	A-171	5-DC-5
Precal Fuel Transport System (5-FK-2 / 5-FK-3)	S-172	A-172	5-DC-6
Kiln Feed Homogenizer System 5-S-1-2	S-151	A-151	5-DC-1 (5-AS-1 & 2 to 5-BE-1 & 2)
		A-152	5-DC-2 (5-BE-1 &2 to 5-S-1 & 2)

Table 3-1 Sources Included in the Startup and Shutdown of the Kiln and Clinker Cooler			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
Kiln Feed System	S-153	A-153	5-DC-3 (5-BE-3 & 4 to 5-AS-23 & 24)

* Sources 162 and 163 are operated as required. Startup and shutdown of these two sources are logged independent of the kiln – cooler operation.

A malfunction for the kiln, clinker cooler and respective pollution control equipment is defined as the occurrence of an observed opacity excursion and/or a computer control indication of a problem that results in exceedance of emission and or operating limits.

3.3 Corrective Action Procedures for the Kiln and Clinker Cooler

Refer to SOP #1 and SOP #5 for the details of kiln, clinker cooler and respective air pollution control equipment corrective action and O&M during startup, shutdown and malfunction periods.

3.4 Startup, Shutdown and Malfunction Event Recordkeeping and Reporting

The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for the kiln, clinker cooler and respective pollution control equipment **consistent** with the Operation and Maintenance Plan will be recorded in the Control Room Shift Operations log.

The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for the kiln, clinker cooler and respective pollution control equipment **not consistent** with the Operation and Maintenance Plan will be recorded on the Startup, Shutdown, or Malfunction Event for Process and/or Pollution Control Equipment Resulting in Emissions in Excess of Relevant Standards form and reported by telephone or facsimile within 2 working days of the start of the event, followed by a written response within 7 working days after the end of the event.

4.0 Corrective Action Procedures for Raw Mills, Finish Mills and Respective Pollution Control Equipment During Startup, Shutdown and Malfunction (SSM) Events

4.1 General

For all affected sources and respective pollution control equipment for the raw mills and finish mills identified in Table 1-1, 40 CFR 63 Subpart A requires that malfunctions be corrected as soon as practicable, in accordance with the procedures outlined herein. For the raw mills, finish mills and respective pollution

control equipment, NESHAP Subpart LLL requires that corrective action be initiated within 1 hour per the O&M plan, and that a follow-up 30 minute Method 9 test be conducted within 24 hours.

4.2 Definition of Startup, Shutdown, and Malfunction (SSM) Event

Startups and shutdowns of the raw mills and associated auxiliary equipment in these circuits are recorded in the Control Room Shift Operations log. A startup is expected to take up to 60 minutes, and a shutdown is expected to take up to 60 minutes, to stabilize the feed rate, pyroprocess exhaust gas flow and temperatures.

The sources and respective pollution control devices included in the startup or shutdown of the Raw Mill No.1 and Raw Mill No.2 circuits are listed in Tables 4-1 and 4-2, respectively.

Table 4-1
Sources Included in the Startup and Shutdown of the Raw Mill No. 1 Circuit

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
Raw Mill 4-GM-1	S-141	A-141	4-DC-7 / 22
Raw Mill 1 Separator 4-SE-3 & Aux. Equip.	S-143	A-143	4-DC-3
Raw Mill 4-GM-1 Feeders	S-134	A-134	3-DC-4 (4-S-1&3/4-WF-1&3 to 4-BC-1)

Table 4-2
Sources Included in the Startup and Shutdown of the Raw Mill No. 2 Circuit

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
Raw Mill 2 4-GM-2	S-142	A-142	4-DC-23 / 38
Raw Mill 2 Separator 4-SE-4 & Aux. Equip.	S-144	A-144	4-DC-4
Raw Mill 4-GM-2 Feeders	S-135	A-135	3-DC-5 (4-S-2&4/4-WF-2&4 to 4-BC-2)

A malfunction for the raw mill and respective pollution control equipment is defined as the occurrence of a kiln-mill gas inlet temperature exceedance, opacity excursion and or a computer control indication of a problem that results in exceedence of emission limits.

Startups and shutdowns of the Clinker Roll Press and finish mills and associated auxiliary equipment in these circuits are recorded in the Control Room Shift Operations log. A startup is expected to take up to 60 minutes, and a shutdown is expected to take up to 60 minutes.

The sources and respective pollution control devices included in the startup or shutdown of the Clinker Roll Press, Finish Mill No.1, Finish Mill No. 3, and Finish Mill No. 2 circuits are listed in Tables 4-3, 4-4, 4-5 and 4-6, respectively.

Table 4-3
Sources Included in the Startup and Shutdown of the Clinker Roll Press Circuit

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
6-RP-1 Roller Press and Peripherals	S-230	A-230	6-DC-2
Concrete Storage Silo, Pressed Cake Bin (6-SS-2)	S-231	A-231	6-DC-3

Table 4-4
Sources Included in the Startup and Shutdown of the Finish Mill No.1 Circuit

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
Finish Mill (6-GM-1)	S-210	A-210	6-DC-17
6-GM-1 Air Separator (6-SE-1)	S-218	A-218	6-DC-19
6-GM-1 Cake Feeder (6-WF-3)	S-242	A-242	6-DC-11
6-GM-1 Cake Conveyor (6-BC-13)	S-216	A-216	6-DC-13
6GM1 Cake Conveyor (6-BC-15)	S-217	A-217	6-DC-15
6-GM-1 Gypsum Feeder (6-WF-9)	S-245	A-245	6-DC-9
6-GM-1 Reclaimed Cement Feeder (6-WF-5)*	S-243	A-243	6-DC-5
6GM1 Pozzolin Feeder (6-WF-7)*	S-244	A-244	6-DC-7

Table 4-4 Sources Included in the Startup and Shutdown of the Finish Mill No.1 Circuit			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
Kiln Dust Additive Bin*	S-414	A-414	6-DC-25

* Sources 243, 244 and 414 are operated intermittently. Startup and shutdown of these three sources are logged independent of the 6GM1 finish milling circuit.

Table 4-5 Sources Included in the Startup and Shutdown of the Finish Mill No.3*			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
Finish Mill 6GM3	S-412	A-218	6-DC-19

* Finish Mill 6-GM-3 can only operate when Finish Mill No.1 Circuit (S-210) is operating.

Table 4-6 Sources Included in the Startup and Shutdown of the Finish Mill No.2 Circuit			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
6-GM-2 Mill and Peripherals	S-220	A-220	6-DC-8
Separator (6-SE-2)	S-211	A-211	6-DC-12 / 18
6-GM-2 Cake Feeder (6WF2)	S-221	A-221	6-DC-6
6-GM-2 Gypsum Feeder (6WF4)	S-222	A-222	6-DC-4

A malfunction for the clinker roll press and finish mill and respective pollution control equipment is defined as the occurrence of an opacity excursion and or a computer control indication of a problem that results in exceedence of emission limits.

4.3 Corrective Action Procedures for Raw Mills and Finish Mills

Refer to SOP # 2, SOP # 3 and SOP # 4 for the details of raw mills, finish mills and respective air pollution control equipment corrective action and O&M during startup, shutdown and malfunction periods.

4.4 Startup, Shutdown and Malfunction Event Recordkeeping and Reporting

The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for the raw mill, finish mill and respective pollution control equipment **consistent** with the Operation and Maintenance Plan will be recorded in the Control Room Shift Operations log.

The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for the raw mills, finish mills and respective pollution control equipment **not consistent** with the Operation and Maintenance Plan will be recorded on the Startup, Shutdown, or Malfunction Event for Process and/or Pollution Control Equipment Resulting in Emissions in Excess of Relevant Standards form and reported by telephone or facsimile within 2 working days of the start of the event, followed by a written response within 7 working days after the end of the event.

5.0 Procedures for Other Affected Sources and Respective Pollution Control Equipment Corrective Action During Startup, Shutdown and Malfunction (SSM) Events

5.1 General

For other affected sources and respective pollution control equipment, NESHAP Subpart A requires that malfunctions be corrected as soon as practicable, in accordance with the procedures outlined herein. The other affected sources are as listed in Table 1-1, and include conveyor transfer points.

5.2 Definition of Startup, Shutdown, and Malfunction (SSM) Event

Startups and shutdowns of the other affected sources not associated with the kiln, clinker cooler, raw mill or finish mill circuits are recorded in the Control Room Shift Operations log or the Loadout / Packhouse Shift Operations log. A startup is expected to take up to 30 minutes, and a shutdown is expected to take up to 20 minutes.

The sources and respective pollution control devices included in the startup or shutdown of specific groups of sources in support of the finish milling process, finish product transport, and finish product handling are listed in Tables 5-1 through 5-5.

A malfunction for other affected sources and respective air pollution control equipment is defined as the occurrence of an opacity excursion and or a computer control indication of a problem that results in exceedence of emission limits.

Sources included in the startup and shutdown of the clinker transport and storage system to the clinker Roll Press process are listed in Table 5-1. The three sources listed can operate independently or together, depending on operational

requirements. Startup and shutdown of these sources are recorded in the Control Room Shift Operations log.

Table 5-1
Sources Included in the Startup and Shutdown of the Clinker Transport and Storage System to the Clinker Roll Press Process

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
Clinker Transfer System	S-165	A-165	5-DC-27 / 5-DC-28 (5-DDC-5 to 5-BC-1 to 6-BC-6)
			5-DC-28 (5-BC-1 to 6-BC-6)
Clinker Storage Hall Area	S-19	A-10	6-DC-45-46-47-48
		A-447*	6-DC-51 at 6-BC-1
		A-448*	6-DC-52 at 6-BC-1
		A-449*	6-DC-53 at 6-BC-1
		A-450*	6-DC-54 at 6-BC-1
Clinker Transfer Area (6-BC-1-3-6-7)	S-17	A-436	6-DC-49

* Under Construction

The source included in the startup and shutdown of the finish milling additive storage system for the finish milling process is listed in Table 5-2. This source operates independent of the finish milling process. Startup and shutdown of this source is recorded in the Control Room Shift Operations log.

Table 5-2
Source Included in the Startup and Shutdown of the Finish Milling Additive Storage System

LEHIGH Source Description	BAAQMD Source #	BAAQMD Abatement Device #	LEHIGH Abatement Device Equipment #
Conveyor (6-BC-20) Additive Bins (6-SS-4-5-7-9)	S-240	A-240	6-DC-21

Sources included in the startup and shutdown of the cement finish product transport from the finish milling process to storage is listed in Table 5-3. The three sources listed operate whenever either or both the finish mill circuits operate. Startup and shutdown of these sources are recorded in the Control Room Shift Operations log.

Table 5-3 Sources Included in the Startup and Shutdown of the Finish Product Transport to Storage			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
West Silo Top Cement Distribution Tower	S-45	A-433	7-DC-5
Middle West Silo Top Cement Distribution Tower	S-46	A-434	7-DC-6
East Silo Top Cement Distribution Tower	S-47	A-435	7-DC-7

Sources included in the startup and shutdown of the cement finish product withdrawal and transport from storage to the loadout and packhouse is listed in Table 5-4. The sources listed operate independently or together, depending on operational requirements. Startup and shutdown of these sources are recorded in the Loadout / Packhouse Shift Operations log.

Table 5-4 Sources Included in the Startup and Shutdown of the Cement Finish Product Withdrawal and Transport from Storage to Loadout and Packhouse			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
Type II Mechanical Transfer System (7-BE-1 & 7-BE-2)	S-74	A-58	7-DC-8
Rail Loadout System	S-301	A-301	7-DC-9
Bulk Cement Loadout Tank #1 and #2	S-48	A-420	7-DC-16 at Bulk Tank #1
		A-421	7-DC-17 at Bulk Tank #1
		A-422	7-DC-18 at Bulk Tank #1
		A-428	7-DC-11 top Bulk Tanks #1 & #2
Bulk Cement Loadout Tank #28	S-49	A-423	7-DC-12
		A-424	7-DC-14
		A-427	7-DC-19 top Bulk Tank #29
		A-429	7-DC-10 top Bulk Tank #28
Bulk Cement Loadout Tank #29	S-50	A-425	7-DC-13
		A-426	7-DC-15

Table 5-4 Sources Included in the Startup and Shutdown of the Cement Finish Product Withdrawal and Transport from Storage to Loadout and Packhouse			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
		A-427	7-DC-19
		A-429	7-DC-10

Sources included in the startup and shutdown of the cement finish product packing operation is listed in Table 5-5. The sources listed operate independently depending on market requirements. Startup and shutdown of these sources are recorded in the Loadout / Packhouse Shift Operations log.

Table 5-5 Sources Included in the Startup and Shutdown of the Cement Packhouse			
LEHIGH Source Description	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**
Cement Packer #1	S-54	A-430	7-PDC-1
Cement Packer #2	S-55	A-431	7-PDC-2

5.3 Corrective Action Procedures for Other Affected Sources

Refer to SOP # 3 and SOP # 4 for the details for the other affected sources and respective air pollution control equipment corrective action and O&M during startup, shutdown and malfunction periods.

5.4 Startup, Shutdown and Malfunction Event Recordkeeping and Reporting

The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for other affected sources and respective pollution control equipment **consistent** with the Operation and Maintenance Plan will be recorded in the Control Room Shift Operations log.

The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for other affected sources and respective pollution control equipment **not consistent** with the Operation and Maintenance Plan will be recorded on the Startup, Shutdown, or Malfunction Event for Process and/or Pollution Control Equipment Resulting in Emissions in Excess of Relevant Standards form and reported by telephone or facsimile within 2 working days of the start of the event, followed by a written response within 7 working days after the end of the event.

6.0 Procedures for Kiln and Clinker Cooler Visual Emissions (VE) Inspections

6.1 Regulatory Requirement

Under NESHAP Subpart LLL, daily VE inspections using EPA Method 9 are required on the kiln and clinker cooler pollution control devices. EPA Method 9 is a percent opacity measurement by a certified observer. (LEHIGH is not subject to the continuous opacity monitor requirement due to the multiple stack configuration of the existing baghouses for both the kiln and clinker cooler.)

The kiln has a 20% opacity limit. The duration of the Method 9 test must be at least 30 minutes each day the kiln is operating at representative performance conditions. The average opacity for each six-minute period during the test will be recorded. If the average opacity for any 6-minute block period exceeds 20 percent, this constitutes a violation of the standard.

The clinker cooler has a 10% opacity limit. The duration of the Method 9 test must be at least 30 minutes each day the cooler is operating at representative performance conditions. The average opacity for each six-minute period during the test will be recorded. If the average opacity for any 6-minute block period exceeds 10 percent, this constitutes a violation of the standard.

6.2 Procedures for VE Inspections

Refer to SOP #5 for kiln and clinker cooler pollution control device VE inspections. A summary of the VE inspection procedures as outlined in SOP # 6 follows:

- Visible emissions measurements taken only by currently certified observers.
- Visible emission measurements conducted from the correct location.
- Visible emission measurements conducted under operations at representative performance conditions.
- A minimum of five consecutive 6-minute readings are taken and the results recorded on the VE form.
- To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 20 percent for the kiln, or 10 percent for the cooler. If the average opacity for any 6-minute block period exceeds 20 percent for the kiln, or 10 percent for the cooler, this shall constitute a violation of the standard.
- If results of the visible emission evaluation exceed compliance limits, initiate corrective actions within one hour.

6.3 Recordkeeping for VE Inspections

All VE forms shall be kept on file for a minimum of 5 years.

7.0 Procedures for Raw Mill and Finish Mill VE Inspections

7.1 Regulatory Requirement

Under NESHAP Subpart LLL, daily VE inspections using EPA Method 22 is required to be performed on the raw mills and finish mills sweep and air separator air pollution control devices (dust collectors).

The raw mills and finish mills have a 10% opacity limit. The duration of the Method 22 test must be at least 6 minutes each day. The test is to be conducted under representative performance conditions. The Method 22 test is a yes/no opacity reading by a trained observer who does not have to be certified. A Method 9 test is needed to detect a violation of the standard. If the average opacity during the Method 9 test exceeds 10 percent, this constitutes a violation of the standard.

7.2 Procedures for VE inspections

Refer to SOP # 6 for raw mills and finish mills sweep and air separator pollution control devices VE inspections. A summary of the VE inspection procedures as outlined in SOP # 6 follows:

- Visible emissions inspection taken by a trained observer.
- Visible emission observation conducted from the correct location.
- Visible emission observation conducted under operations at representative performance conditions.
- A minimum of a 6-minute Method 22 observation conducted and the results recorded on the VE form.
- If visible emissions are observed initiate corrective actions within one hour.
- If visible emissions were observed, conduct a follow up 6-minute Method 22 within 24 hours.
- If visible emissions are observed from the follow up Method 22 observation, conduct a 30 minute Method 9 VE test within 1 hour.

7.3 Recordkeeping for VE Inspections

All VE forms shall be kept on file for a minimum of 5 years.

8.0 Procedures for Other Affected Source VE Inspections

8.1 Regulatory Requirement

Under NESHAP Subpart LLL for the Other Affected Sources and respective pollution control devices as listed in Table 1-1, VE inspections using EPA Method 22 is required at a frequency of either monthly, semiannual, or annual, depending on the results of previous inspections.

The other affected sources have a 10% opacity limit. The duration of the Method 22 test must be at least 1 minute at each occurrence. The test is to be conducted under representative performance conditions. The Method 22 test is a yes/no opacity reading by a trained observer who does not have to be certified. A Method 9 test is needed to detect a violation of the standard. If the average opacity during the Method 9 test exceeds 10 percent, this constitutes a violation of the standard.

Initially, a monthly Method 22 inspection must be conducted for each source. If no visible emissions are observed in six consecutive monthly inspections for any affected source, the facility may decrease the frequency of inspections from monthly to semiannual for that affected source. If visible emissions are observed during any semiannual test, the facility must resume inspection of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly inspections.

If no visible emissions are observed during two consecutive semiannual inspections for any affected source, the facility may decrease the frequency of testing from semiannually to annually for that affected source. If visible emissions are observed during any annual inspection, the owner or operator must resume inspection of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly inspections, at which point the inspection becomes semiannual.

8.2 Procedures for VE Inspections

Refer to SOP # 7 for other affected sources and respective pollution control devices VE inspections. A summary of the VE inspection procedures as outlined in SOP # 7 follows:

- Visible emissions inspection taken by a trained observer.
- Visible emission observation conducted from the correct location.
- Visible emission observation conducted under operations at representative performance conditions.
- A minimum of a 1-minute Method 22 observation conducted and the results recorded on the VE form.
- If visible emissions were observed, conduct a follow up 6-minute Method 9 test within 1 hours.

8.3 Recordkeeping for VE Inspections

All VE forms shall be kept for a minimum of 5 years.

9.0 Continuous Temperature Monitoring at Kiln Baghouse Inlet

The inlet temperature to the kiln baghouse is monitored continuously, and recorded in a data acquisition system. Records of when the in-line raw mill is on-line or off-line recorded in the Control Room Shift Operation log. The temperature monitor is calibrated at least every 90 days. A semiannual report of temperature data will be submitted.

9.1 CMS Overview

Data is collected from two thermocouples located in the inlet ducts to both sides of the kiln-mill dust collector (KMDC). The data tag names are 4HE01T1 and 4HE01T2, respectively. These thermocouples measure the exhaust gas temperature from the kiln and inline raw mills.

The thermocouples are connected to LLAIs (Low Level Analog Inputs) in the Honeywell TDC3000. The data is read by the Nexus Data Acquisition System (DAS) from the Honeywell TDC3000 database for future data retrieval.

The thermocouples 4HE01T1 and 4HE01T2 and the data collection system are maintained in three ways:

1. The field device and associated wiring and connections

   This portion is covered by the "Thermocouple Calibration Procedure"

2. The input signal processing to the plant control system

   As referenced in 3e of the "Thermocouple Calibration Procedure"; should the thermocouple need to be replaced and the temperature of the reference thermocouple still not agree with the process thermocouple even after the field devices are found to be good, an IOP calibration must be performed. This is accomplished by following the calibration procedures in the Honeywell PM/APM/HPM service-1 manual, section 7, IOP calibration.

3. Digital data collection, storage and retrieval

   The data that is collected and stored by the Nexus DAS computer is kept on its mirrored hard drives. This database is backed up to tape on a routine basis.

Procedures for performing backups, restoring data and maintenance for the networked computer systems can be found in the PSBRM (Process Systems Backup/Recovery and Maintenance) manual.

9.2 Thermocouple Calibration Procedure

1. Methodology:

   The thermocouple calibration is performed by comparing the temperature measured by the facility thermocouple with that measured by a reference thermocouple-thermometer system that is National Institute of Standards and Technology (NIST) traceable.

2. Requirements for the reference thermocouple-thermometer system:

    a. The reference thermocouple system requires an accuracy of at least 0.3% of the absolute temperature and should be the same thermocouple type (J, K, T, etc.) as the facility thermocouple.
    b. The reference thermocouple-thermometer system needs to be calibrated against NIST standards, which can be done by the thermocouple vendor. Copies of the NIST calibration certificates are retained.
    c. The NIST traceable calibration certificate is only valid for one year. Both the reference thermocouple and the thermometer is sent back to the vendor to be recalibrated each year or a new calibrated thermocouple system is purchased each year.

3. Calibration the facility thermocouple:

    The facility thermocouples are required to be calibrated every three months using the following procedure:

    a. Install the reference thermocouple system as close as possible to the facility thermocouple.
    b. Measure temperature in the stack using the reference thermocouple and the facility thermocouple at the same time.
    c. Compare the temperatures measured by the reference thermocouple and facility thermocouple. The facility thermocouple passes the calibration if the absolute temperatures measured with the facility thermocouple and the reference thermocouple agree within 1.5% per 40CFR Part 60 Appendix A, Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) (10/17/2000). If the temperature difference measured by the two thermocouples exceeds 1.5%, the facility thermocouple needs to be replaced.
    d. The newly installed facility thermocouple needs to be calibrated against the reference thermocouple using the same procedures in a, b, and c.
    e. If the calibration fails even with a new thermocouple, the facility thermocouple readout and control system need to be checked and adjusted.

10.0 Kiln Combustion System Annual Inspection

The kiln combustion system will be inspected annually during the major maintenance shutdown.

11.0 Recordkeeping and Reporting

11.1 Required Records

Per NESHAP Subpart A, records are required to be kept for all of the following for a period of five years:

- All maintenance performed on control equipment

- Occurrence and duration of each SSM period of process equipment and of each malfunction of air pollution control equipment.
- Actions taken during SSM periods and all information necessary to demonstrate conformance with SSM plan.
- Kiln baghouse inlet temperature data and thermocouple calibrations.

The record format for VE inspections on the following units is in accordance with the *Visible Emission Observation Form (x)* forms (included in the appendices):

- Kiln and clinker cooler
- Raw mills and finish mills
- Other affected sources (including transfer points)

The format for corrective actions on the following units that is in accordance with the Startup, Shutdown, and Malfunction Plan is recorded on the Startup, Shutdown, or Malfunction Event for Process and/or Pollution Control Equipment Resulting in Emissions in Excess of Relevant Standards form (included in the appendices):

- Kiln and clinker cooler
- Raw mills and finish mills
- Other affected sources (including transfer points)

11.2 Required Reports

Reports are required as follows:

- Reports if corrective actions are not consistent with O&M plan: A summary of the corrective action must be faxed within 2 business days, and a follow-up report must be mailed within 7 business days.
- Semiannual SSM and excess emissions report: These reports identify SSM periods and excess emissions periods (if any) during the reporting period.
- Semiannual kiln baghouse inlet temperature report.

The format for the non-consistent corrective action reporting is shown in report format #EPA-1 (included in the appendices). The format for the semiannual reporting to EPA is shown in report format #SSM-1 (included in the appendices).

12.0 Implementation and Revision of Plan

12.1 Procedures for Review and Change (minor modification)

Changes to the O&M plan shall constitute administrative revisions to the Title V permit.

12.2 Procedures for Review and Change of Referenced Documents

For document control, both electronic and hard copies of O&M plan will be maintained. Each page of the O&M plan shall display the page number, the revision number and date of revision.

SOP # 1: Kiln and Clinker Cooler Preventive Maintenance

Maintenance will be performed on Kiln / Clinker Cooler and / or Respective Pollution Control Equipment if, but not limited to:

1. Visible dust is observed in the exhaust in excess of 10% opacity.
2. Control computer remote and/or local parameters indicate a problem, affecting visible emissions.
3. Inspection indicates a problem.
4. Loss of refractory occurs.
5. Scheduled preventive maintenance.

Preventive Maintenance on pollution control equipment may include but not limited to:

1. Record manometer readings at designated intervals.
2. Unit mechanical inspection.
3. Check and replace bags.
4. Keep a record of bag changes.
5. Check fan and reverse air dampers.
6. Inspect cleaning system:
   - Reverse air
7. Check fan.
8. Check unit discharge.
9. Check duct work.
10. Maintain control valves.

Corrective Action Procedures for the Kiln, Clinker Cooler and Respective Pollution Control Equipment

1. Immediately dispatch qualified process personnel to investigate.
2. Determine source of emissions;
   a. Inspect the pollution control equipment.
   b. Inspect the process equipment.
3. Monitor the process parameters.
4. Adjust the process equipment operating parameters to reduce emissions.
5. Isolate the process and/or pollution control equipment and shut it down if necessary.
6. Contact appropriate maintenance personnel to conduct repairs.

SOP # 2: Raw Mill and Finish Mill Preventive Maintenance

Maintenance will be performed on Raw / Finish Mills and / or Respective Pollution Control Equipment if, but not limited to:

1. Visible dust is observed in the exhaust in excess of 10% opacity.
2. Control computer remote and/or local parameters indicate a problem, affecting visible emissions.
3. Inspection indicates a problem.
4. Scheduled preventive maintenance.

Preventive Maintenance on pollution control equipment may include but not limited to:

1. Record manometer readings at designated intervals.
2. Unit mechanical inspection.
3. Check and replace bags.
4. Keep a record of bag changes.
5. Check diaphragms for pulse jet units.
6. Inspect cleaning system:
   - Reverse air
   - Pulse jet
7. Check fan.
8. Check unit discharge.
9. Check duct work.
10. Maintain control valves.

Corrective Action Procedures for the Raw Mills, Finish Mills and Respective Pollution Control Equipment

1. Immediately dispatch qualified process personnel to investigate.
2. Determine source of emissions;
   a. Inspect the pollution control equipment.
   b. Inspect the process equipment.
3. Monitor the process parameters.
4. Adjust the process equipment operating parameters to reduce emissions.
5. Isolate the process and/or pollution control equipment and shut it down if necessary.
6. Contact appropriate maintenance personnel to conduct repairs.

SOP # 3: Other Affected Sources (permitted) Preventive Maintenance

LEHIGH has two types of Baghouses:

- Pulse jet
- Reverse Air

The same PM applies to both types of baghouses (see below).

Maintenance will be performed on baghouses if :

1. Visible dust is observed in the exhaust in excess of 10% opacity.
2. Control computer remote and/or local parameters indicate a problem, affecting visible emissions.
3. Inspection indicates a problem.
4. Cleaning system is not working.
5.. Scheduled preventive maintenance.

Preventive Maintenance on baghouses includes:

1. Record manometer readings at designated intervals.
2. Unit mechanical inspection.
3. Check and replace bags.
4. Keep a record of bag changes.
5. Check diaphragms for pulse jet units.
6. Inspect cleaning system:
   - Reverse air
   - Pulse jet
7. Check fan.
8. Check unit discharge.
9. Check duct work.
10. Maintain control valves.

Corrective Action Procedures for Other Affected Sources and Respective Pollution Control Equipment

1. Immediately dispatch qualified process personnel to investigate.
2. Determine source of emissions;
   a. Inspect the pollution control equipment.
   b. Inspect the process equipment.
3. Monitor the process parameters.
4. Adjust the process equipment operating parameters to reduce emissions.
5. Isolate the process and/or pollution control equipment and shut it down if necessary.
6. Contact appropriate maintenance personnel to conduct repairs.

SOP # 4: Other Affected Sources (conveyor transfer points)
Preventive Maintenance

Maintenance will be performed if, but not limited to the following:

1. Visible dust is observed in the exhaust in excess of 10% opacity.
2. Control computer remote and/or local parameters indicate a problem, affecting visible emissions.
3. Inspection indicates a problem.
4. Scheduled preventive maintenance.

Preventive Maintenance may include but not limited to the following:

1. Verify that conveyor scrapers are working.
2. Check that chutes are not plugged.
3. Make sure return pan is clear.
4. Check all rollers.

SOP # 5: VE Inspection Procedures for Kiln and Clinker Coolers

Kiln - A daily 30 minute EPA Method 9 VE reading is required. The opacity limit is 20% for each 6-minute block period. Use the EPA Method 9 procedures to monitor and record the average opacity for each six-minute period during the test. An EPA Method 9 form will be used for each reading. The form will be kept on file in the vicinity of the control room. All readers must be certified as a valid "Visible Emission Evaluator", and their certification cards will be on file in the vicinity of the control room. If VE is detected above the limit, the VE evaluator or his delegate will, within 1 hour, begin inspecting the equipment to find the cause of the problem.

Clinker Coolers - A daily 30 minute EPA Method 9 VE reading is required. The opacity limit is 10% for each 6-minute block period. Use the EPA Method 9 procedures to monitor and record the average opacity for each six-minute period during the test. An EPA Method 9 form will be used for each reading and the form will be kept in the control room. All readers must be certified as a valid "Visible Emission Evaluator," and their card is on file in the control room. If VE is detected above the limit, the VE evaluator or his delegate will, within 1 hour, begin inspecting the equipment to find the cause of the problem.

SOP # 6: VE Inspection Procedures for Raw Mills and Finish Mills

Raw Mill - A daily six minute EPA Method 22 test is required. If any visible emissions are observed during any Method 22 test, qualified plant personnel must initiate corrective action within one hour. With in 24 hours from the time the initial Method 22 test was conducted for which visible emissions were observed, conduct a follow up Method 22 test. If visible emissions are observed during the follow up Method 22 test, conduct a 30-minute Method 9 test. The opacity limit is 10%. A record of the date, time and observation will be kept on file in the facility. EPA Method 22 test does not require a certified "Visible Emission Evaluator," but the reader must be trained to identify emissions.

Finish Mills - A daily six minute EPA Method 22 test is required. If any visible emissions are observed during any Method 22 test, qualified plant personnel must initiate corrective action within one hour. With in 24 hours from the time the initial Method 22 test was conducted for which visible emissions were observed, conduct a follow up Method 22 test. If visible emissions are observed during the follow up Method 22 test, conduct a 30-minute Method 9 test. The opacity limit is 10%. A record of the date, time and observation will be kept on file in the facility. EPA Method 22 test does not require a certified "Visible Emission Evaluator," but the reader must be trained to identify emissions.

SOP # 7: VE Inspection Procedures for All Other Affected Sources (Including Transfer Points)

All other affected sources at the Lehigh Southwest Cement plant is defined as all sources from the raw mill circuit feed conveyor system, through the plant operating system to the bagging and bulk loading of final product. Excluded from the category "Other affected sources" are the Kiln, Clinker Cooler, Raw Mill, and Finish Mills (see separate SOPs). The primary and secondary crushers and the coal handling systems are not subject to the NESHAP. Included are all partially enclosed or unenclosed conveyor system transfer points. Excluded are totally enclosed conveying system transfer points.

A monthly Method 22 test must be conducted for each point defined as "All other sources." The opacity limit is 10%. If any visible emissions are observed during any Method 22 test, qualified plant personnel must conduct a follow up six minute Method 9 test within 1 hours of observing visible emissions from any source during the initial Method 22 test. A record of the date, time and observation will be kept in the control room. EPA Method 22 does not require a certified "Visible Emission Evaluator", but the reader must be trained to identify emissions. If VE is detected above the limit in the Method 9 test, the VE reader or his delegate will, within 1 hour of the Method 9 test, begin inspecting the equipment to find the cause of the problem.

If no visible emissions are observed in six consecutive monthly tests, the facility personnel may decrease the frequency of testing from monthly to semiannual.

Preventive Maintenance Schedule

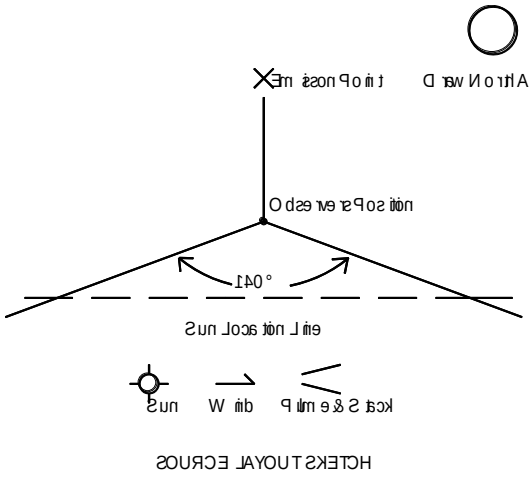
- Weekly basis: Kiln and clinker coolers
- Monthly basis: Raw mill and all finish mills
- Semiannual basis: All other systems

Maintenance Record Keeping

- **Field forms are issued to personnel performing maintenance to the equipment.**
- **Field Maintenance forms vary with equipment requirements and inspection frequency.**
- **Field forms have information entered on them by personnel actually performing work in the field.**
- **The data determined by field inspection is entered in the computerized equipment data base by the crew supervisor or the maintenance department planning section for permanent record keeping.**

Visible Emission Observation Form I

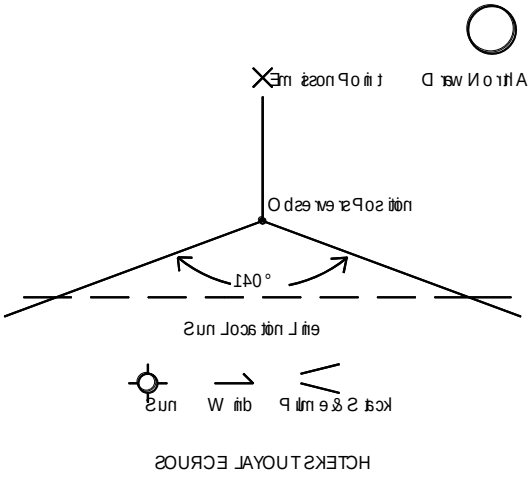
Lehigh - Permanente Plant	***Observation Date -***	***min / sec.***	***0***	***15***	***30***	***45***
24001 Stevens Creek Blvd.	***Start Time -***	***1***				
Cupertino, CA 95014	***Stop Time -***	***2***				
(408) 996-4226		***3***				
Process Source Equipment: **Kiln / Precalciner System BAAQMD S # 154**	***Control Abatement Equipment:*** **KMDC (4-DC-7 / 22) BAAQMD A #141 KMDC (4-DC-23 / 38) BAAQMD A #142**	***4***				
		5				
Describe Emission Point: 32 Stacks Arranged in 2 Parallel Rows of **16 Stacks Each, 707 ft. 9 in. Above Sea Level**		***6***				
		7				
Height Above Ground Level: ***Start*** **43 ft.** ***Stop*** **43 ft.**	***Height Relative to Observer:*** ***Start*** **- 17 ft.** ***Stop*** **- 17 ft.**	***8***				
		9				
Distance From Observer: ***Start*** **200 ft.** ***Stop*** **200 ft.**	***Direction From Observer:*** ***Start*** **NORTH** ***Stop*** **NORTH**	***10***				
		11				
Describe Emissions: ***Start*** ***Stop***		***12***				
		13				
Emission Color: ***Start*** ***Stop***	***Plume Type:*** **Continuous ☐** **Fugitive ☐** **Intermittent ☐**	***14***				
		15				
Water Droplets Present: **Yes ☐** **No ☐**	***If Water Droplet Plume:*** **Attached ☐** **Detached ☐**	***16***				
		17				
Point In The Plume At Which Opacity Was Determined: ***Start*** **1 foot above stacks** ***Stop*** **1 foot above stacks**		***18***				
		19				
Describe Background: ***Start*** **Tan or Grey Building** ***Stop*** **Tan or Grey Building**		***20***				
		21				
Background Color: ***Start*** **Tan / Grey** ***Stop*** **Tan / Grey**	***Sky Conditions:*** ***Start*** ***Stop***	***22***				
		23				
Wind Speed: ***Start*** ***Stop***	***Wind Direction:*** ***Start*** ***Stop***	***24***				
		25				
Ambient Temperature: ***Start*** ***Stop***	***Wet Bulb Temp.*** / ***Relative Humidity %***	***26***				
		27				
Comments:		***28***				
		29				
		30				



Average Opacity for Highest Period -	
Number of Readings Above % Were -	
Range of Opacity Reading - *Minimum*	
Maximum	
Observer's Name (Print)	
Observer's Signature	***Date***
Certified By	***Date***
Verified By	***Date***

Visible Emission Observation Form II

Lehigh - PermanentePlant	***Observation Date -***	***min / sec.***	***0***	***15***	***30***	***45***
24001 Stevens Creek Blvd.	***Start Time -***	***1***				
Cupertino, CA 95014	***Stop Time -***	***2***				
(408) 996-4226		***3***				
Process Source Equipment: **Clinker Cooler System BAAQMD S # 161**	***Control Abatement Equipment:*** **CCDC (5-DC-11 / 20) BAAQMD A #161**	***4***				
		5				
Describe Emission Point: 10 Stacks Arranged in Series **630 ft. Above Sea Level**		***6***				
		7				
Height Above Ground Level: ***Start*** **42 ft.** ***Stop*** **42 ft.**	***Height Relative to Observer:*** ***Start*** **- 6 ft.** ***Stop*** **- 6 ft.**	***8***				
		9				
Distance From Observer: ***Start*** **30 ft.** ***Stop*** **30 ft.**	***Direction From Observer:*** ***Start*** **NW** ***Stop*** **NW**	***10***				
		11				
Describe Emissions: ***Start***	***Stop***	***12***				
		13				
Emission Color: ***Start*** ***Stop***	***Plume Type:*** **Continuous ☐** ***Fugitive*** **☐ Intermittent ☐**	***14***				
		15				
Water Droplets Present: **Yes ☐ No ☐**	***If Water Droplet Plume:*** **Attached ☐ Detached ☐**	***16***				
		17				
Point In The Plume At Which Opacity Was Determined: ***Start*** **1 foot above stacks** ***Stop*** **1 foot above stacks**		***18***				
		19				
Describe Background: ***Start*** **Grey Concrete Silos** ***Stop*** **Grey Concrete Silos**		***20***				
		21				
Background Color: ***Start Grey*** ***Stop Grey***	***Sky Conditions:*** ***Start*** ***Stop***	***22***				
		23				
Wind Speed: ***Start*** ***Stop***	***Wind Direction:*** ***Start*** ***Stop***	***24***				
		25				
Ambient Temperature: ***Start*** ***Stop***	***Wet Bulb Temp.*** / ***Relative Humidity*** %	***26***				
		27				
Comments:		***28***				
		29				
		30				



Average Opacity for Highest Period -	
Number of Readings Above % Were -	
Range of Opacity Reading - *Minimum*	
Maximum	
Observer's Name (Print)	
Observer's Signature	***Date***
Certified By	***Date***
Verified By	***Date***

Visible Emission Observation Form IIIa

Process Source Equipment: **Raw Mill 4-GM-1 Circuit BAAQMD S # 143**	***Control Abatement Equip.:*** **Dust Collector 4-DC-3 BAAQMD A # 143**	***Observation Date:***	***Observation Time:*** **Start: Stop: Total Time:_____ minutes**	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 1.5 x 3 ft. Rectangular Outlet**	***Height Above Ground Level:*** **81 ft. (Stack elev. 709 ft.)**	***Height Relative to Observer:*** **+ 81 ft.**	***Distance from Observer:*** **150 ft.** **Direction from Observer: NW**	***Describe Background:*** **Building Siding**	***Background Color: Tan***
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Action per O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Process Source Equipment: **Raw Mill 4-GM-2 Circuit BAAQMD S # 144**	***Control Abatement Equip.:*** **Dust Collector 4-DC-4 BAAQMD A # 144**	***Observation Date:***	***Observation Time:*** ***Start: Stop: Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 1.5 x 3 ft. Rectangular Outlet**	***Height Above Ground Level:*** **75 ft. (Stack elev. 703 ft.)**	***Height Relative to Observer:*** **+ 75 ft.**	***Distance from Observer:*** **150 ft.** ***Direction from Observer:*** **W**	***Describe Background:*** ***Building Siding***	***Background Color: Tan***
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Action per O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Process Source Equipment: **Roll Press 6-RP-1 Circuit BAAQMD S # 230**	***Control Abatement Equip.:*** **Dust Collector 6-DC-2 BAAQMD A # 230**	***Observation Date:***	***Observation Time:*** ***Start: Stop: Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 2 x 1.7 ft. Rectangular Outlet**	***Height Above Ground Level:*** **40 ft. (Stack elev. 776 ft.)**	***Height Relative to Observer:*** **+ 40 ft.**	***Distance from Observer*****: 60 ft.** ***Direction from Observer:*** **E**	***Describe Background:*** ***Building Siding***	***Background Color: Tan***
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Actionper O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Visible Emission Observation Form IIIb

Process Source Equipment: **Finish Mill 6-GM-1 Circuit BAAQMD S # 210**	***Control Abatement Equip.:*** **Dust Collector 6-DC-17 BAAQMD A # 210**	***Observation Date:***	***Observation Time:*** ***Start:*** ***Stop:*** ***Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 2.5 ft. dia. Round Outlet**	***Height Above Ground Level:*** **11 ft. (Stack elev. 679 ft.)**	***Height Relative to Observer:*** **+ 11 ft.**	***Distance from Observer:*** **30 ft.** ***Direction from Observer:*** **N**	***Describe Background:*** **Building Siding**	***Background Color:*** **Dark Gray**
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Actionper O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Process Source Equipment: **Finish Mill 6-SE-1 Circuit BAAQMD S # 218**	***Control Abatement Equip.:*** **Dust Collector 6-DC-19 BAAQMD A # 218**	***Observation Date:***	***Observation Time:*** ***Start:*** ***Stop:*** ***Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 7.75 ft. Square Outlet**	***Height Above Ground Level:*** **10 ft. (Stack elev. 740 ft.)**	***Height Relative to Observer:*** **+ 10 ft.**	***Distance from Observer:*** **60 ft.** ***Direction from Observer:*** **S**	***Describe Background:*** **Dust collectors, building structures**	***Background Color:*** **Dark Gray**
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Actionper O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Process Source Equipment: **Finish Mill 6-GM-3 Circuit BAAQMD S # 412**	***Control Abatement Equip.:*** **Dust Collector 6-DC-19 BAAQMD A # 218**	***Observation Date:***	***Observation Time:*** ***Start:*** ***Stop:*** ***Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 7.75 ft. Square Outlet**	***Height Above Ground Level:*** **10 ft. (Stack elev. 740 ft.)**	***Height Relative to Observer:*** **+ 10 ft.**	***Distance from Observer:*** **60 ft.** ***Direction from Observer:*** **S**	***Describe Background:*** **Dust collectors, building structures**	***Background Color:*** **Dark Gray**
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Action per O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Visible Emission Observation Form IIIc

Process Source Equipment: **Finish Mill 6-GM-2 Circuit BAAQMD S # 220**	***Control Abatement Equip.:*** **Dust Collector 6-DC-8 BAAQMD A # 220**	***Observation Date:***	***Observation Time:*** ***Start:*** ***Stop:*** ***Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 2 ft. Square Outlet**	***Height Above Ground Level:*** **6 ft. (Stack elev. 685 ft.)**	***Height Relative to Observer:*** **- 6 ft.**	***Distance from Observer:*** **20 ft.** ***Direction from Observer:*** **E**	***Describe Background:*** **Building Siding**	***Background Color:*** **Dark Gray**
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Action per O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Process Source Equipment: **Finish Mill 6-SE-2 Circuit BAAQMD S # 211**	***Control Abatement Equip.:*** **Dust Collector 6-DC-12/18 BAAQMD A # 211**	***Observation Date:***	***Observation Time:*** ***Start:*** ***Stop:*** ***Total Time:_____ minutes***	***Observer's Name (Print)***	***Observer's Signature:***
Describe Emission Point: **Stack Horizontal, 3 ft. Square Outlet**	***Height Above Ground Level:*** **11 ft. (Stack elev. 735 ft.)**	***Height Relative to Observer:*** **11 ft.**	***Distance from Observer:*** **70 ft.** ***Direction from Observer:*** **S**	***Describe Background:*** **Building Structure**	***Background Color:*** **Dark Gray**
Sky Conditions: **Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐**	***Wind Direction:*** ***Wind Speed:***	***Process Unit Operating:*** **Yes ☐ No ☐**	***Condensed Water Vapor:*** **Yes ☐ No ☐**	***Visible Emissions Detected:*** **Yes ☐ No ☐**	***Corrective Action per O&M Plan Required:*** **Yes ☐ No ☐**
Comments:					

Monthly Visible Emission and Pressure Drop Form 3

Control Abatement Equipment	6-DC-45 (A-10)	6-DC-46 (A-10)	6-DC-47 (A-10)
Process Source Equipment	Area 6 Clinker Storage Hall (S-19)	Area 6 Clinker Storage Hall (S-19)	Area 6 Clinker Storage Hall (S-19)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 4

Control Abatement Equipment	6-DC-48 (A-10)	6-DC-1 (A-13)	1-DC-1 (A-111)
Process Source Equipment	Area 6 Clinker Storage Hall (S-19)	Clinker Feeder 6-WF-1 (S-21)	Area 1 Rail Unloading System (S-111)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 5

Control Abatement Equipment	1-DC-2 (A-112)	1-DC-3 (A-113)	1-DC-4 (A-114)
Process Source Equipment	Area 1 Additive Hopper Transfer (S-112)	Area 1 Additive Bin Transfer (S-113)	Area 1 Additive Bin Transfer (S-113)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 6

Control Abatement Equipment	1-DC-5 (A-115)	2-DC-1 (A-121)	2-DC-2 (A-122)
Process Source Equipment	Area 1 Additive Storage Tripper (S-115)	Area 2 Tertiary Scalping Screen (2-VS-1&2) & Tertiary Crusher (2-CR-1) (S-121 & S-122)	Tertiary Crusher 2-CR-1 & Area 2 Rock Conveying System (S-122)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 7

Control Abatement Equipment	2-DC-3 (A-123)	3-DC-1 (A-131)	3-DC-2 (A-132)
Process Source Equipment	Area 2 Rock Conveying (S-123)	Area 3 Rock Sampling Tower (S-131)	Area 3 Preblend Stacking (S-132)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 8

Control Abatement Equipment	3-DC-3 (A-133)	3-DC-4 (A-134)	3-DC-5 (A-135)
Process Source Equipment	Area 3 Preblend Reclaiming (S-132)	Area 3 Preblend Storage Bin (4-S-1 & 4-S-2) (S-134)	Area 3 Highgrade Storage Bins (4-S-3 & 4-S-4) (S-135)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 9

Control Abatement Equipment	4-DC-7 (A-141)	4-DC-8 (A-141)	4-DC-9 (A-141)
Process Source Equipment	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 10

Control Abatement Equipment	4-DC-10 (A-141)	4-DC-11 (A-141)	4-DC-12 (A-141)
Process Source Equipment	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 11

Control Abatement Equipment	4-DC-13 (A-141)	4-DC-14 (A-141)	4-DC-15 (A-141)
Process Source Equipment	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 12

Control Abatement Equipment	4-DC-16 (A-141)	4-DC-17 (A-141)	4-DC-18 (A-141)
Process Source Equipment	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 13

Control Abatement Equipment	4-DC-19 (A-141)	4-DC-20 (A-141)	4-DC-21 (A-141)
Process Source Equipment	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 14

Control Abatement Equipment	4-DC-22 (A-141)	4-DC-23 (A-142)	4-DC-24 (A-142)
Process Source Equipment	Raw Mill 4-GM-1 & Calciner Kiln Pyroprocess (KMDC-1) (S-141 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 15

Control Abatement Equipment	4-DC-25 (A-142)	4-DC-26 (A-142)	4-DC-27 (A-142)
Process Source Equipment	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 16

Control Abatement Equipment	4-DC-28 (A-142)	4-DC-29 (A-142)	4-DC-30 (A-142)
Process Source Equipment	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 17

Control Abatement Equipment	4-DC-31 (A-142)	4-DC-32 (A-142)	4-DC-33 (A-142)
Process Source Equipment	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 18

Control Abatement Equipment	4-DC-34 (A-142)	4-DC-35 (A-142)	4-DC-36 (A-142)
Process Source Equipment	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 19

Control Abatement Equipment	4-DC-37 (A-142)	4-DC-38 (A-142)	4-DC-3 (A-143)
Process Source Equipment	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 4-GM-2 & Calciner Kiln Pyroprocess (KMDC-2) (S-142 & S-154)	Raw Mill 1 Separator System (4-SE-3) (S-143)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point		Stack horizontal, 1.5 x 3 ft. Rectangular outlet	Stack horizontal, 1.5 x 3 ft. Rectangular outlet
Height above ground level		81 ft. (Stack elev. 709 ft)	75 ft (Stack elev. 703 ft)
Height relative to observer		+81 ft	75 ft
Distance from observer		150 ft	150 ft
Direction from observer		NW	W
Describe background		Building Siding	Building Siding
Background color		Tan	Tan
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 20

Control Abatement Equipment	4-DC-4 (A-144)	5-DC-1 (A-151)	5-DC-2 (A-152)
Process Source Equipment	Raw Mill 2 Separator System (4-SE-4) (S-144)	Area 5 Homogenizing Silo 5-S1 & 5-S-2 (5-AS-1&2 to 5-BE1&2) (S-151)	Area 5 Homogenizing Silo 5-S1 & 5-S-2 (5-BE-1&2 to 5-S1&2) (S-151)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-15	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 21

Control Abatement Equipment	5-DC-3 (A-153)	5-DC-11 (A-161)	5-DC-12 (A-161)
Process Source Equipment	Area 5 Kiln Feed Conveyance (5-BE-3&4 to 5-AS-23&24) (S-153)	Clinker Cooler Exhaust (5-CC-1) (S-161)	Clinker Cooler Exhaust (5-CC-1) (S-161)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 22

Control Abatement Equipment	5-DC-13 (A-161)	5-DC-14 (A-161)	5-DC-15 (A-161)
Process Source Equipment	Clinker Cooler Exhaust (5-CC-1) (S-161)	Clinker Cooler Exhaust (5-CC-1) (S-161)	Clinker Cooler Exhaust (5-CC-1) (S-161)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 23

Control Abatement Equipment	5-DC-16 (A-161)	5-DC-17 (A-161)	5-DC-18 (A-161)
Process Source Equipment	Clinker Cooler Exhaust (5-CC-1) (S-161)	Clinker Cooler Exhaust (5-CC-1) (S-161)	Clinker Cooler Exhaust (5-CC-1) (S-161)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 24

Control Abatement Equipment	5-DC-19 (A-161)	5-DC-20 (A-161)	5-DC-24 (A-162)
Process Source Equipment	Clinker Cooler Exhaust (5-CC-1) (S-161)	Clinker Cooler Exhaust (5-CC-1) (S-161)	Area 5 Clinker Silo 5-S-11 (5-BE-5 to 5-DDC-3 & 4) (A-162)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 25

Control Abatement Equipment	5-DC-25 (A-163)	5-DC-23 (A-164)	5-DC-27 (A-165)
Process Source Equipment	Area 5 Clinker Silo 5-S-12 (5-DDC-4 to 5-S-12) (A-163)	Area 5 Former Free CaO Bin (5-DDC-2 to 5-BE-5 & 5-DDC5) (S-164)	Area 5 Clinker Conveyance (5-DDC-5 to 5-BC-1 & 6-BC6) (A-165)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 26

Control Abatement Equipment	5-DC-5 (A-171)	5-DC-6 (A-172)	
Process Source Equipment	Area 5 Kiln Fuel Process (5-CM-1 / 5-FK-1 & 3) (S-171 & S-154)	Area 5 Calciner Fuel Proc. (5-CM-2 / 5-FK-2 & 3) (S-172 & S-154)	
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-20	0-20	0-10
Manometer allowable ΔP (in. wg)	14	14	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 27

Control Abatement Equipment	**5-DDC-1 Water Spray**	**5-DC-90 (1) (A-190)**	**5-DC-90 (2) (A-190)**
Process Source Equipment	Area 5 Emergency Clinker Conveyor (S-444)	Area 5 Gravity Clinker Cooler (5-BCO-1 / 5-CC-2&3) (S-161)	Area 5 Gravity Clinker Cooler (5-BCO-1 / 5-CC-2&3) (S-161)
Observation Date			
Is the source operating? (if no, enter comment)	NA	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	NA	0-10	0-10
Manometer allowable ΔP (in. wg)	NA	8	8
Manometer reading ΔP (in. wg)	NA		
Is ΔP > Allowable?	NA	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	NA	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 28

Control Abatement Equipment	5-DC-90 (3) (A-190)	5-DC-90 (4) (A-190)	6-DC-1 (A-???)
Process Source Equipment	Area 5 Gravity Clinker Cooler (5-BCO-1 / 5-CC-2&3) (S-161)	Area 5 Gravity Clinker Cooler (5-BCO-1 / 5-CC-2&3) (S-161)	Roll Press Clinker Storage Silo (6-SS-1) (S-???)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 29

Control Abatement Equipment	6-DC-17 (A-210)	6-DC-12 / 18 (A-211)	6-DC-13 (A-216)
Process Source Equipment	Finish Mill 6-GM-1 Circuit 6-DC-17 (S-210)	Finish Mill 6-SE-2 Circuit 6-DC-12/18 (S-211)	Finish Mill 6-GM-1 Clinker Cake Conveyor 6-BC-13 (S-216)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	No	No	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 30

Control Abatement Equipment	6-DC-15 (A-217)	6-DC-19 (A-218)	6-DC-6 (A-221)
Process Source Equipment	Finish Mill 6-GM-1 Clinker Cake Conveyor 6-BC-15 (S-217)	Finish Mill 6-GM-1& 6-GM-3 Separator 6-SE-1 (S-218, 412)	Finish Mill 6-GM-2 Clinker Cake Feeder 6WF-2 (S-221)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 31

Control Abatement Equipment	6-DC-4 (A-222)	6-DC-2 (A-230)	6-DC-3 (A-231)
Process Source Equipment	Area 6 Gypsum Feeder (6-WF-4) (S-222)	Roll Press 6-RP-1 Circuit 6-DC-2 (S-230)	Clinker Cake Storage Silo (6-SS-2) (S-231)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 32

Control Abatement Equipment	6-DC-21 (A-240)	6-DC-11 (A-242)	6-DC-5 (A-243)
Process Source Equipment	Area 5 Feeder Add. Conveyor (6-BC-20 / 6-SS-4, 5, 7, 9) (S-240)	Finish Mill 6-GM-1 Clinker Cake Feeder 6WF-3 (S-242)	Area 6 Reclaim Feeder (6 WF-5 on 6-GM-1) (S-243)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 33

Control Abatement Equipment	6-DC-7 (A-244)	6-DC-9 (A-245)	6-DC-25 (A-414)
Process Source Equipment	Area 6 Pozz. Feeder (6 WF-7 on 6-GM-1) (S-244)	Area 6 Gyp Feeder (6-WF-9 on 6-GM-1) (S-245)	Finish Mill 6-GM-1 Kiln Dust Additive Bin 6-SS-25 (S-414)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 34

Control Abatement Equipment	**6-DC-23 (A-415)**		**7-DC-05 (A-433)**
Process Source Equipment	Finish Mill Building Conveyor 6-BC-23 6-SS-23 (S-415)		Finish Cement Storage Silos Top West Distribution Tower (S-45)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 35

Control Abatement Equipment	7-DC-06 (A-434)	7-DC-07 (A-435)	7-DC-49 (A-436)
Process Source Equipment	Finish Cement Storage Silos Top Middle Distribution Tower (S-46)	Finish Cement Storage Silos Top East Distribution Tower (S-47)	Clinker Transfer Area (6-BC-1, -3, -5, -7) (S-436)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	No	No
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 36

Control Abatement Equipment	6-DC-51 (A-447)	6-DC-52 (A-448)	6-DC-53 (A-449)
Process Source Equipment	Clinker Storage Hall Tunnel Belt 6-BC-1 Feeder (S-19)	Clinker Storage Hall Tunnel Belt 6-BC-1 Feeder (S-19)	Clinker Storage Hall Tunnel Belt 6-BC-1 Feeder (S-19)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 37

Control Abatement Equipment	6-DC-54 (A-450)	7-DC-8 (A-58)	7-DC-9 (A-301)
Process Source Equipment	Clinker Storage Hall Tunnel Belt 6-BC-1 Feeder (S-19)	Cement Mechanical Transfer System (7-BE-1 & 7-BE-2) (S-74)	Finish Cement Rail Loadout System (S-301)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 38

Control Abatement Equipment	7-DC-16 (A-420)	7-DC-17 (A-421)	7-DC-18 (A-422)
Process Source Equipment	Finish Cement Bulk Loadout Tank #1 & #2 (S-48)	Finish Cement Bulk Loadout Tank #1 & #2 (S-48)	Finish Cement Bulk Loadout Tank #1 & #2 (S-48)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 39

Control Abatement Equipment	7-DC-12 (A-423)	7-DC-14 (A-424)	7-DC-13 (A-425)
Process Source Equipment	Finish Cement Bulk Loadout Tank #28 (S-49)	Finish Cement Bulk Loadout Tank #28 (S-49)	Finish Cement Bulk Loadout Tank #29 (S-50)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 40

Control Abatement Equipment	7-DC-15 (A-426)	7-DC-19 (A-427)	7-DC-11 (A-428)
Process Source Equipment	Finish Cement Bulk Loadout Tank #29 (S-50)	Finish Cement Bulk Loadout Tank #28 & #29 (S-49 & S-50)	Finish Cement Bulk Loadout Tank #1 & #2 (S-48)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

Monthly Visible Emission and Pressure Drop Form 41

Control Abatement Equipment	7-DC-10 (A-429)	7-PDC-01 (A-430)	7-PDC-02 (A-431)
Process Source Equipment	Finish Cement Bulk Loadout Tank #28 & #29 (S-49 & S-50)	Finish Cement Packer #1 (S-54)	Finish Cement Packer #2 (S-55)
Observation Date			
Is the source operating? (if no, enter comment)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Manometer range (in. wg)	0-10	0-10	0-10
Manometer allowable ΔP (in. wg)	8	8	8
Manometer reading ΔP (in. wg)			
Is ΔP > Allowable?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Is M22 always required? (If No, run M22 only if ΔP > Allowable)	Yes	Yes	Yes
	6-Minute Method 22 (Run M22 monthly if above is Yes or if ΔP > Allowable)		
Start time			
Stop time			
Describe Emission point			
Height above ground level			
Height relative to observer			
Distance from observer			
Direction from observer			
Describe background			
Background color			
Sky conditions	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐	Clear ☐ Cloudy ☐ Overcast ☐ Rain ☐
Estimated wind speed	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐	Calm ☐ Breezy ☐ Very windy ☐
Wind direction (circle direction wind blowing towards)	NW NE SW SE W N E S	NW NE SW SE W N E S	NW NE SW SE W N E S
Condensed water vapor? (If yes, not an emission)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Visible emissions? (If yes, enter Work Order # below)	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
Work Order # (If required)			
Comments			
Observer's name (print)			

LEHIGH SOUTHWEST CEMENT COMPANY - PERMANENTE PLANT
STARTUP, SHUTDOWN, OR MALFUNCTION EVENT
FOR PROCESS AND/OR POLLUTION CONTROL EQUIPMENT
RESULTING IN EMISSIONS IN EXCESS OF RELEVANT STANDARDS

Event Exceedence Start		**Event Exceedence Stop**	
Date:	**Time:**	**Date:**	**Time:**

LEHIGH Equipment Source No.	**LEHIGH Equipment Description**

BAAQMD Scource No.		**BAAQMD Abatement Device No.**	

Description of Event Requiring Corrective Action

Startup / Shutdown ☐ **Control Eq. (Baghouse) Problem** ☐ **Process Problems** ☐ **Other Known Problems** ☐ **Unknown Problems** ☐	***Comments***

Description of Excess Emission and / or Parametric Monitoring Exceedences

Opacity Exceedence – Yes ☐ No ☐	**Temperature Exceedence – Yes ☐ No ☐**

Description of Corrective Action(s) Taken:

Corrective Action(s) Consistent with O&M Plan - Yes ☐ No ☐*

If NOT Consistent Explain Why:

Name (print):	**Date:**

* The occurrence, duration, and corrective action pertaining to startup, shutdown and malfunction events for other affected sources and respective pollution control equipment **not consistent** with the Operation and Maintenance Plan must be reported to the BAAQMD by telephone or facsimile within 2 working days of the start of the event, followed by a written response within 7 working days after the end of the event.

REPORT FORMAT FOR ACTIONS NOT CONSISTENT WITH O&M PLAN TO BAAQMD
FORM #BAAQMD-1

[Letter to be sent to BAAQMD for an action not consistent with the O&M Plan.]

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

[Date]

Subject: Lehigh Southwest Cement Company - Permanente Plant, Cupertino, Ca

Dear Sir;

This letter is to inform BAAQMD that an action was taken during startup, shutdown, or malfunction not consistent with the Operation and Maintenance Plan at the Lehigh Southwest Cement Company (LSCC) - Permanente Plant in Cupertino, California, on *[Date].*

The following action not consistent with the O&M Plan occurred: *[Summarize or itemize non-routine events that are not covered by the O&M Plan. Include date and time, emission unit description and equipment permit number.]*

The following details are provided according to 40 CFR 63 for reporting requirements:

- *[Circumstances of the event.]*
- *[Reasons for not following the startup, shutdown and malfunction plan, or that the SSM plan was not adequate to resolve the issue.]*
- *[Any excess emissions and/or parameter monitoring exceedances are believed to have occurred.]*

Immediate plans and actions are in progress to resolve the situation to meet regulatory compliance. Please call me at (408) 996-4262 for any questions or concerns.

Thank you,

Scott Renfrew
Environmental Manager

Cc: Henrik Wesseling, LSCC

REPORT FORMAT FOR ROUTINE SEMIANNUAL REPORTING TO EPA
FORM #SSM-1

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Director, Air and Toxics Division
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

[Date]

Subject: **Summary Report – Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance as Required for the NESHAP (40 CFR Part 63) Subpart LLL Reporting Period *[Date]*** to ***[Date]***

Re: Lehigh Southwest Cement Company
Permanente Plant

Dear Sir/Madam;

Attached please find Lehigh Southwest Cement Company's ("LEHIGH") semiannual report to satisfy 40 CFR Part 63 Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants (NESHAP) for Portland Cement Manufacturing reporting requirements for the Permanente Plant located at 24001 Stevens Creek Blvd., Cupertino, CA 95014. LEHIGH is required to submit a summary report every 180 days. The enclosed report represents the reporting period ***[Date]*** to ***[Date]***

The Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance Summary Report contains the following information per §63.10(e)(3)(vi) and §63.1354(b)(9):

1) The company name and address of the affected source;
2) Identification of each hazardous air pollutant monitored at the affected source;
3) The beginning and ending dates of the reporting period;
4) A brief description of the process units;
5) The emission and operating parameter limitations specified in the relevant standard;
6) The date of the latest CMS certification or audit;
7) The total operating time of the affected sources during the reporting period;
8) Emission data summary;
9) CMS performance summary;
10) A description of any changes in CMS, processes, or controls since the last reporting period;
11) The name, title, and signature of the responsible official who is certifying the accuracy of the report;
12) The date of the report;

13) Startup, Shutdown and Malfunction Report certifying that actions taken during a startup, shutdown, or malfunction of an affected source are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (§63.10(d)(5)(i) and §63.1354(b)(4));
14) All exceedences of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b) (§63.1354(b)(9)(i));
15) All failures to calibrate thermocouples as required under §63.1350(f)(7) (§63.1354(b)(9)(ii));
16) The results of any combustion system component inspection conducted within the reporting period as required under §63.1350(i) (§63.1354(b)(9)(iv));
17) All failures to comply with any provision of the operation and maintenance plan developed under §63.1530(a) (§63.1354(b)(9)(v)), and;
18) Excess Emissions and Continuous Monitoring System Performance Report (§63.10(e)(3)(v)), IF the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period (§63.10(e)(3)(viii)), or the total CMS downtime for the reporting period is 10 percent or greater of the total operating time for the reporting period (§63.1354(b)(10)).

I certify that, based on information and belief formed after reasonable inquiry, the information contained in this report is true, accurate, and complete.

Name: (Print) Scott Renfrew

Signature: _____

Title: Environmental Manager

Date: _____

Cc; Henrik Wesseling, LSCC

Summary Report – Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance

1) Company Name and Address -

Lehigh Southwest Cement
24001 Stevens Creek Blvd.
Cupertino, CA 95014

2) Identification of each Hazardous Air Pollutant Monitored -

Particulate Matter
Dioxin/furans

3) The Beginning and Ending Dates of the Reporting Period

[Date] **to** ***[Date]***

4) Brief Description of Process Units -

Refer to Table 1 for list of affected sources.

5) Emission and Operating Limitations -

Refer to Table 1 for list of emission and operating limitations for affected sources.

6) Date of latest CMS certification or audit -

[Date]

7) Total Operating Time for Affected Sources -

Refer to Table 1 for list of operating time in hours for affected sources for this period.

8) Emission Data Summary -

Refer to Table 2 for emission data summary for this period.

9) Continuous Monitoring System (CMS) Performance Summary -

Refer to Table 2 for CMS performance summary.

10) Description of any changes in CMS, Processes, or Controls since last reporting period -

Refer to Table 2 for changes in CMS, processes, or controls since last reporting period.

11) The name, title, and signature of the responsible official who is certifying the accuracy of this report -

Refer to the cover letter for the name, title, and signature of responsible official certifying this report.

12) Date of the report -

The report is dated ***[Date]***.

13) The Startup, Shutdown and Malfunction Report certifying that actions taken during a startup, shutdown, or malfunction of an affected source are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan -

Refer to Attachment I for Startup, Shutdown and Malfunction Report for this period.

14) Exceedences of Maximum Control Device Inlet Gas Temperature Limits-

Refer to Table 3 for exceedences of the maximum control device inlet gas temperatures for this period. As presented in the Federal Register, Vol. 67, No. 236 Proposed Rule dated Dec. 9, 2002 Proposed Amendments to the General Provisions, page 72881, which states:

> Under our regulations, "malfunction" is defined as "any sudden, *infrequent*, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner." Only those events that meet this definition would be subject to the reporting requirement. During an event that meets this definition, the facility is not required to comply with otherwise applicable emission limits, and the SSM plan must specify alternative procedures which satisfy the general duty to minimize emissions. Minor or routine events that have no applicable impact on the ability of a source to meet the standard need not be classified by the source as a malfunction, addressed in the SSM plan, or included in periodic reports.

Accordingly, Table 3 lists only those events identified as resulting from a malfunction and not associated with routine startups and shutdowns during this period.

15) Thermocouple Calibrations-

Refer to Table 2 for date of last thermocouple calibration for this period.

Page 5

16) <u>Combustion System Component Inspections-</u>

No inspections were conducted on the combustion system for this period.

17) <u>Compliance with Operation and Maintenance Plan –</u>

There are no reported failures to comply with any provision of the operation and maintenance plan for this period (i.e.; failures to follow plan, failures to conduct daily or monthly visual emission observations, failure to conduct corrective actions).

18) <u>Excess Emissions and Continuous Monitoring System Performance Report -</u>

Refer to Attachment II for the Excess Emissions and Continuous Monitoring System Performance Report for the reporting period.

Page 6

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
Kiln and Clinker Cooler	Preheater - Precalciner Kiln System	S-154	A-141	4-DC-7 / 22	• PM 0.30 lbs per ton raw feed on dry basis to kiln. • Opacity ≤ 20%. • D/F $1.7x10^{-10}$ gr per dscf (TEQ) corrected to 7% O_2 at ≤ 204ºC (400ºF). • PMCD gas inlet temperature at ≤ 190ºC (374ºF) established during initial performance test.	x.x
			A-142	4-DC-23 / 38		
	Clinker Cooler 5-CC-1	S-161	A-161	5-DC-11 / 20	• PM 0.10 lbs per ton raw feed on dry basis to kiln. • Opacity ≤ 10%.	x.x

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
Raw Mills	Raw Mill 4-GM-1	S-141	A-141	4-DC-7 / 22	• PM 0.30 lbs per ton raw feed on dry basis to kiln. • Opacity ≤ 20%. • D/F $1.7x10^{-10}$ gr per dscf (TEQ) corrected to 7% O_2 at ≤ 204ºC (400ºF). • PMCD gas inlet temperature at ≤ 190ºC (374ºF) established during initial performance test.	x.x
	Raw Mill 1 Separator 4-SE-3 & Aux. Equip.	S-143	A-143	4-DC-3	• Opacity ≤ 10%.	x.x
	Raw Mill 2 4-GM-2	S-142	A-142	4-DC-23 / 38	• PM 0.30 lbs per ton raw feed on dry basis to kiln. • Opacity ≤ 20%. • D/F $1.7x10^{-10}$ gr per dscf (TEQ) corrected to 7% O_2 at ≤ 204ºC (400ºF). • PMCD gas inlet temperature at ≤ 190ºC (374ºF) established during initial performance test.	x.x
	Raw Mill 2 Separator 4-SE-4 & Aux. Equip.	S-144	A-144	4-DC-4	• Opacity ≤ 10%.	x.x
Finish Mills	6-RP-1 Roller Press and Peripherals	S-230	A-230	6-DC-2	• Opacity ≤ 10%.	x.x

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
	Finish Mill (6-GM-1)	S-210	A-210	6-DC-17	• Opacity ≤ 10%.	x.x
	6-GM-1 Air Separator (6-SE-1)	S-218	A-218	6-DC-19	• Opacity ≤ 10%.	x.x
Finish Mills	Finish Mill 6GM3	S-412	A-218	6-DC-19	• Opacity ≤ 10%.	x.x
	6-GM-2 Mill and Peripherals	S-220	A-220	6-DC-8	• Opacity ≤ 10%.	x.x
	Separator (6-SE-2)	S-211	A-211	6-DC-12 / 18	• Opacity ≤ 10%.	x.x
Other Affected Sources	Kiln Fuel Transport System (5-FK-1 / 5-FK-3)	S-171	A-171	5-DC-5	• Opacity ≤ 10%.	x.x
	Precal Fuel Transport System (5-FK-2 / 5-FK-3)	S-172	A-172	5-DC-6	• Opacity ≤ 10%.	x.x
	Raw Mill 4-GM-1 Feeders	S-134	A-134	3-DC-4 (4-S-1&3/4-WF-1&3 to 4-BC-1)	• Opacity ≤ 10%.	x.x
	Raw Mill 4-GM-2 Feeders	S-135	A-135	3-DC-5 (4-S-2&4/4-WF-2&4 to 4-BC-2)	• Opacity ≤ 10%.	x.x
	Kiln Feed Homogenizer System	S-151	A-151	5-DC-1 (5-AS-1 & 2 to 5-BE-1 & 2)	• Opacity ≤ 10%.	x.x

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
	5-S-1-2		A-152	5-DC-2 (5-BE-1 &2 to 5-S-1 & 2)	• Opacity ≤ 10%.	x.x
	Kiln Feed System	S-153	A-153	5-DC-3 (5-BE-3 & 4 to 5-AS-23 & 24)	• Opacity ≤ 10%.	x.x
	Gravity Cooler 5-CC-2 5-CC-3	S-161	A-190	5-DC-90 (5-BC0-1 to 5-CC-2 & 3 / 5-DDC-2)	• Opacity ≤ 10%.	x.x
	Clinker Silo A 5-S-11	S-162	A-162	5-DC-24 (5-BE-5 to 5-DDC-3 / 5-DDC-4 / 5-S-11)	• Opacity ≤ 10%.	x.x
	Clinker Silo B 5-S-12	S-163	A-163	5-DC-25 (5-DDC-4 to 5-S-12)	• Opacity ≤ 10%.	x.x
	Freelime Storage Bin	S-164	A-164	5-DC-23 (5-DDC-2 to 5-BE-5 / 5-DDC-5)	• Opacity ≤ 10%.	x.x
	Clinker Transfer System	S-165	A-165	5-DC-27 (5-DDC-5 to 5-BC-1)	• Opacity ≤ 10%.	x.x
				5-DC-28 (5-BC-1 to 6-BC-6)	• Opacity ≤ 10%.	x.x
	Clinker Transfer Area (6-BC-1-3-6-7)	S-17	A-436	6-DC-49	• Opacity ≤ 10%.	x.x
	Clinker Storage Hall Area	S-19	A-10	6-DC-45-46-47-48	• Opacity ≤ 10%.	x.x

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
			A-447	6-DC-51 at 6-BC-1	• Opacity ≤ 10%.	x.x
			A-448	6-DC-52 at 6-BC-1	• Opacity ≤ 10%.	x.x
			A-449	6-DC-53 at 6-BC-1	• Opacity ≤ 10%.	x.x
			A-450	6-DC-54 at 6-BC-1	• Opacity ≤ 10%.	x.x
	Concrete Storage Silo, Pressed Cake Bin (6-SS-2)	S-231	A-231	6-DC-3	• Opacity ≤ 10%.	x.x
	Conveyor (6-BC-20) Additive Bins (6-SS-4-5-7-9)	S-240	A-240	6-DC-21	• Opacity ≤ 10%.	x.x
	6-GM-1 Cake Feeder (6-WF-3)	S-242	A-242	6-DC-11	• Opacity ≤ 10%.	x.x
	6-GM-1 Cake Conveyor (6-BC-13)	S-216	A-216	6-DC-13	• Opacity ≤ 10%.	x.x
	6GM1 Cake Conveyor (6-BC-15)	S-217	A-217	6-DC-15	• Opacity ≤ 10%.	x.x
	6-GM-1 Gypsum Feeder (6-WF-9)	S-245	A-245	6-DC-9	• Opacity ≤ 10%.	x.x
	6GM1 Pozzolin Feeder (6-WF-7)	S-244	A-244	6-DC-7	• Opacity ≤ 10%.	x.x
	6-GM-1 Reclaimed Cement Feeder (6-WF-5)	S-243	A-243	6-DC-5	• Opacity ≤ 10%.	x.x

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
	Kiln Dust Additive Bin	S-414	A-414	6-DC-25	• Opacity ≤ 10%.	x.x
	6-GM-2 Cake Feeder (6WF2)	S-221	A-221	6-DC-6	• Opacity ≤ 10%.	x.x
	6-GM-2 Gypsum Feeder (6WF4)	S-222	A-222	6-DC-4	• Opacity ≤ 10%.	x.x
	West Silo Top Cement Distribution Tower	S-45	A-433	7-DC-5	• Opacity ≤ 10%.	x.x
	Middle West Silo Top Cement Distribution Tower	S-46	A-434	7-DC-6	• Opacity ≤ 10%.	x.x
	East Silo Top Cement Distribution Tower	S-47	A-435	7-DC-7	• Opacity ≤ 10%.	x.x
	Rail Loadout System	S-301	A-301	7-DC-9	• Opacity ≤ 10%.	x.x
	Type II Mechanical Transfer System (7-BE-1 & 7-BE-2)	S-74	A-58	7-DC-8	• Opacity ≤ 10%.	x.x
	Bulk Cement Loadout Tank #1 and #2	S-48	A-420	7-DC-16 at Bulk Tank #1	• Opacity ≤ 10%.	x.x
			A-421	7-DC-17 at Bulk Tank #1	• Opacity ≤ 10%.	x.x
			A-422	7-DC-18 at Bulk Tank #1	• Opacity ≤ 10%.	x.x

Summary Report Table 1						
Description of Process Units					**Emission and Operating Limitations**	**Operating Time (hours)**
Equipment Category	**LEHIGH Source Description**	**BAAQMD Source #**	**BAAQMD Abatement Device #**	**LEHIGH Abatement Device Equipment #**		
			A-428	7-DC-11 top Bulk Tanks #1 & #2	• Opacity ≤ 10%.	x.x
	Bulk Cement Loadout Tank #28	S-49	A-423	7-DC-12	• Opacity ≤ 10%.	x.x
			A-424	7-DC-14	• Opacity ≤ 10%.	x.x
			A-427	7-DC-19	• Opacity ≤ 10%.	x.x
Other Affected Sources			A-429	7-DC-10 top Bulk Tank #29	• Opacity ≤ 10%.	x.x
	Bulk Cement Loadout Tank #29	S-50	A-425	7-DC-13	• Opacity ≤ 10%.	x.x
			A-426	7-DC-15	• Opacity ≤ 10%.	x.x
			A-427	7-DC-19	• Opacity ≤ 10%.	x.x
			A-429	7-DC-10	• Opacity ≤ 10%.	x.x
	Cement Packer #1	S-54	A-430	7-PDC-1	• Opacity ≤ 10%.	x.x
	Cement Packer #2	S-55	A-431	7-PDC-2	• Opacity ≤ 10%.	x.x

Table 2
Excess Emissions and Continuous Monitoring System Summary Report

Affected Source: In-Line Kiln / Raw Mills (S-154 / S-141 & 142, Abatement Device A-141 & A-142

HAP: Dioxin / Furans **Emission Limits**: S-141: Raw Mill On 190 °C (374 °F) Off 190 °C (374 °F)
: S-142: Raw Mill On 190 °C (374 °F) Off 190 °C (374 °F)

HAP Monitored: Temperature at inlet to abatement device

Date Last CMS Calibration: ***[Date]***

Total Operating Time for S-154: xxxx hours

In-Line Kiln / Raw Mill (S-154 / S-141, A-141)		**In-Line Kiln / Raw Mill (S-154 / S-142, A-142)**	
Excess Emission and Parameter Exceedance Data Summary		**Excess Emission and Parameter Exceedance Data Summary**	
1. Duration of Parameter Exceedance (PE) in Reporting Period due to:[1]		1. Duration of Parameter Exceedance (PE) in Reporting Period due to:[1]	
a. Startup / Shutdown:	0.0	a. Startup / Shutdown:	0.0
b. Control Equipment Problems:	0.0	b. Control Equipment Problems:	0.0
c. Process Problems:	0.0	c. Process Problems:	0.0
d. Other Known Causes:	0.0	d. Other Known Causes:	0.0
e. Unknown Causes:	0.0	e. Unknown Causes:	0.0
2. Total Duration of PE:	0.0	2. Total Duration of PE:	0.0
3. Total PE Duration x 100 / Total Source Operating Time	= 0.0 %[2]	3. Total PE Duration x 100 / Total Source Operating Time	= 0.0 %[2]
CMS Performance Summary		**CMS Performance Summary**	
1. CMS Downtime in Reporting Period due to:[1]		1. CMS Downtime in Reporting Period due to:[1]	
a. Monitor Equipment Malfunction:	0.0	a. Monitor Equipment Malfunction:	0.0
b. Non-Monitor Equip. Malfunction:	0.0	b. Non-Monitor Equip. Malfunction:	0.0
c. Quality Assurance Calibration:	0.0	c. Quality Assurance Calibration:	0.0
d. Other Known Causes:	0.0	d. Other Known Causes:	0.0
e. Unknown Causes:	0.0	e. Unknown Causes:	0.0
2. Total CMS Downtime:	0.0	2. Total CMS Downtime:	0.0
3. Total CMS Downtime x 100 / Total Source Operating Time	= 0.0 %[2]	3. Total CMS Downtime x 100 / Total Source Operating Time	= 0.0 %[2]

Describe any changes in the CMS, process, or controls during the reporting period:

NOTES: (1) Units of time in minutes.
(2) If Parameter Exceedances is greater than or equal to 1%, or CMS Downtime is greater than or equal to 10%, of Total Operating Time for the reporting period, submit Excess Emission and Parameter Monitoring Exceedance and CMS Downtime Reports in addition to the Summary Report per 40 CFR 63.10(e)(3)(viii) and 40 CFR 63.1354(b)(10).

Exceedence of Maximum Control Device Inlet Gas Temperature Limits
Table 3

Source Description	BAAQMD Source No.	Raw Mill Operation	Exceedence Start		Exceedence Stop		Duration (min)	Explanation
			Date	Time	Date	Time		
In-line Kiln / Raw Mill	S-154 / S-141	Stop or Run	*[Date]*	*[Time]*	*[Date]*	*[Time]*	x	

Attachment I

Startup, Shutdown and Malfunction Report

As stipulated for the Startup, Shutdown and Malfunction Report requirements under §63.10(d)(5)(i) and §63.1354(b)(4), LEHIGH is submitting the Startup, Shutdown and Malfunction Report with the Excess Emissions and Continuous Monitoring System Performance Report herein. During the reporting period of ***[Date]*** **to** ***[Date]***, all startup, shutdown and malfunction of affected sources, including actions taken to correct malfunctions, were consistent with the procedures specified in the startup, shutdown and malfunction plan for this period.

I certify that, based on information and belief formed after reasonable inquiry, the information contained in this Startup, Shutdown and Malfunction Report is true, accurate, and complete.

Name: (Print) Scott Renfrew

Signature: _____

Title: Environmental Manager

Date: _____

Attachment II

Excess Emissions and Continuous Monitoring System Performance Report

Refer to Table 2 for the total duration of excess emissions or process or control system parameter exceedances, as defined in Subpart LLL, for the reporting period.

- The total duration of excess emissions for In-line Kiln and raw mill, S-154 and S-141, is 0.0% of the total operating time for the reporting period.

- The CMS downtime for In-line Kiln and raw mill, S-154 and S-141, is 0.0% of the total operating time for the reporting period.

- The total duration of excess emissions for In-line Kiln and raw mill, S-154 and S-142, is 0.0% of the total operating time for the reporting period.

- The CMS downtime for In-line Kiln and raw mill, S-154 and S-142, is 0.0% of the total operating time for the reporting period.

Per §63.10(e)(3)(vii);

> If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent (10 % per §63.1354(b)(10)) of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted.

As per the results for the total duration of excess emissions and CMS downtime presented in Table 2 and outlined above, a full excess emissions and continuous monitoring system performance report is not included in this report.

APPENDIX A

Monitoring Roles and Responsibilities

1. Monitoring coordination and oversight: Environmental Manager
2. Responsible for supervising monitoring: Production Manager
3. Responsible for corrective action in response to monitoring: Production and Maintenance Supervisors
4. Actual monitoring: Production / Maintenance Supervisors, Production Assistants and Designated Contractors
5. Visible emission observation forms record keeping: Production Statistician
6. Maintenance Preventive Maintenance record keeping: Maintenance Clerk, Maintenance Planner

APPENDIX B

Training of Observers

1. Certified VE readers attend the semiannual CARB VE test.
2. Method 22 readers will receive annual training from the Environmental Manager.
3. New employees will receive Method 22 training on an as needed basis.