



PART 70 PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number: OP2010-028
Expiration Date: MAR 23 2015
Installation ID: 031-0021
Project Number: 2005-10-052

Installation Name and Address

Buzzi Unicem USA, Inc. - Cape Girardeau Plant
2524 South Sprigg Street
Cape Girardeau, MO 63701
Cape Girardeau County

Parent Company's Name and Address

Buzzi Unicem USA, Inc.
100 Broadhead Road, Suite 230
Bethlehem, PA 18017-8989

Installation Description:

Buzzi Unicem USA, Inc. – Cape Girardeau Plant (formerly Lone Star Industries, Inc.) manufactures Portland cement in Cape Girardeau County. The installation is located in an attainment area. The installation is an existing major source of particulate matter, sulfur oxides, nitrogen oxides, carbon monoxide and hazardous air pollutants.

MAR 24 2010

Effective Date

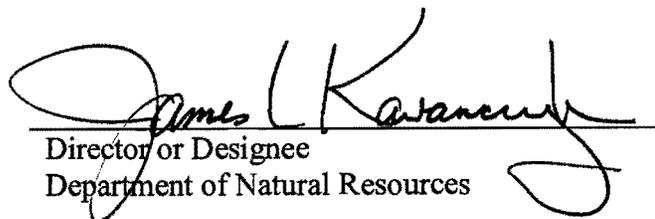

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Buzzi Unicem USA – Cape Girardeau Plant (formerly Lone Star Industries, Inc.) manufactures Portland cement in Cape Girardeau County. The installation is located in an attainment area. The installation is an existing major source of particulate matter (PM), sulfur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide (CO) and Hazardous Air Pollutants (HAPs).

The installation contains quarry operations, raw material handling and storage, raw material grinding, kiln pyroprocessing, cement kiln dust handling, coal handling, clinker cooler, handling and storage, finish mill systems, and cement storage and loadout.

The installation is subject to the Portland Cement Manufacturing MACT and the Hazardous Waste Combustor MACT. The installation operates a preheater/precalciner kiln, which contains an alkali bypass and an in-line raw mill. Since the installation is a major source of HAPs, the kiln, raw mill, finish mill, conveying system transfer points, and bulk loading/unloading systems are covered by the Portland Cement Manufacturing MACT

The reported actual emissions for the past five years for the installation are listed below:

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2007	590.42	18.15	1224.31	20.40	8,786.62	0.01	28.85
2006	383.17	10.90	975.93	142.78	7,011.51	0.01	0.57
2005	335.06	1,359.78	1,666.08	33.77	10,784.49	0.00	0.03
2004	389.73	1,420.79	1,740.88	40.45	11,268.73	0.21	26.97
2003	368.73	1,393.59	1,647.18	39.50	8,456.56	0.00	26.44
2002	380.93	1,362.47	1,611.02	58.01	8,271.88	0.00	25.87

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and which is identified as having unit-specific emission limitations.

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model	Construction Date
EU0010	RM08A	Screen (A-2101)	Simplicity, Model #2820-11014AX-3808	1978 (Modified 1987)
EU0020	RM08B	Screen (A-2102)	Simplicity, Model #1820-11014AX-3808	1978 (Modified 1987)
EU0030	RM09	Transfer Belt from Screen (A-3801)	American Iron Steel Mfg. Co.	1978 (Modified 1986)

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model	Construction Date
EU0040	RM11	Transfer Belt (A-3802)	American Iron Steel Mfg. Co.	1986
EU0050	RM10	Secondary Crusher (A-3800)	Universal	1986
EU0060	RM17	Hopper (W-4600)	Jeffrey Manufacturing	1978
EU0070	RM18	Hammermill Crusher (W-4800) - Primary	Jeffrey Manufacturing	1978
EU0080	RM19	Transfer Belt (W-4900)	Willis & Paul Corp. Custom Made	1978
EU0090	RM20	Transfer Belt (W-5000)	Willis & Paul Corp.	1978
EU0100	RM21	Barge Unloading to Trucks		
EU0110	RM25	Hopper (W-5301)	Standley Batch Systems	1996
EU0120	RM26	Transfer Belt (W-5700)	Willis & Paul Corp.	1978
EU0130	RM27	Transfer Belt (W-3800)	Willis & Paul Corp.	1978
EU0140	RM28	Hopper Rotary Selector (W-4000)	Willis & Paul Corp.	1978
EU0150	RM29A	Raw Material Storage Silo (W-4501)	SMH Engineering, Inc.	1978
EU0160	RM29B	Raw Material Storage Silo (W-4502)	SMH Engineering, Inc.	1978
EU0170	RM29C	Raw Material Storage Silo (W-4503)	SMH Engineering, Inc.	1978
EU0180	RM29D	Raw Material Storage Silo (W-4504)	SMH Engineering, Inc.	1978
EU0190	RM29E	Raw Material Storage Silo (W-4511)	SMH Engineering, Inc.	1978
EU0200	RM29F	Raw Material Storage Silo (W-4512)	SMH Engineering, Inc.	1978
EU0210	RM30	Raw Material Storage Silo (W-4505)	SMH Engineering, Inc.	1978
EU0220	RM30	Raw Material Storage Silo (W-4506)	SMH Engineering, Inc.	1978
EU0230	RM31	Flash Pfister Fedders ((R-3503 & R-3553)	Pfister	
EU0240	CH01	Barge Unloading to Trucks		
EU0250	CH04A	Hopper (W-9600)	Kaiser Engineering	1978
EU0260	CH04B	Feeder Belt (W-9800)	Stand Batch Systems	1990
EU0270	CH05	Transfer Belt (W-9700)	Willis & Paul Corp.	1978
EU0280	CH06	Screen (W-9701)	FMC Corp.	1978
EU0290	CH07	Transfer Belt (W-7900)	Willis & Paul Corp.	1978
EU0300	CH08A	Reversible Transfer Belt (W8106)	Kaiser Engineering	1978
EU0310	CH08B	Solid Fuel (Coal) Silo (C-0900)	Kaiser Engineering	1978
EU0320	CH08B	Solid Fuel (Coal) Silo (C-2300)	Kaiser Engineering	1978
EU0330	CH09	Transfer Belt (C-1000)	Southern Machinery Co.	1978
EU0340	CH09	Transfer Belt (C-2400)	Southern Machinery Co.	1978
EU0350	CH10A	RSP Mill System (C-2500)	Combustion Engineering Inc. Model #803RS	1978
EU0360	CH10A1	Kiln Mill System (C-1100)	Combustion Engineering Inc. Model #663RS	1978
EU0370	CH10B1	Kiln Process Air Heater (C-1400)	Combustion Engineering Inc. Model #7	1978
EU0380	CH10B	RSP Process Air Heater (C-2800)	Combustion Engineering Inc. Model #D-8	1978

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model	Construction Date
EU0410	TH04A	Hopper Loading (KB-7000)	Standley Batch Systems	1992
EU0420	TH04B	Transfer Belt (KB-7200)	Standley Batch Systems	1992
EU0430	TH04B	Transfer Belt (KB-7400)	Standley Batch Systems	1992
EU0440	TH04C	Elevator (KB-7500)	American Iron-Steel Mfg. Co. Rexnard #1612-01	1992
EU0450	TH05	Transfer Belt (KB-7600)	Standley Batch Systems	1992
EU0460	TH05	Transfer Belt (KB-7700)	Standley Batch Systems	1992
EU0470	KP01	Raw Material Transfer to Mill (R-3801)	Southern Machinery Co.	1982
EU0480	KP01A	Transfer Belt (R-3803)	Southern Machinery Co.	1982
EU0490	KP01A	Transfer Belt (R-3700)	Southern Machinery Co.	1982
EU0491	KP01B	Raw Mill Reject Reclaim Drags (R-4360, R-4362, R-4364)		2007
EU0500	KP02	Kiln (KB-5100), Clinker Cooler (KC-0200)	Allis Chalmers/C04553	1978
EU0510	KP02B	Raw Mill System (R-4300)	C.E. Raymond 16380R S/N 77098	
EU0540	KP03A	Raw Blend Silo (B-0701)	SMH Engineering Inc.	
EU0550	KP03A	Raw Blend Silo (B-0702)	SMH Engineering Inc.	
EU0560	KP03A	Raw Blend Silo (B-0703)	SMH Engineering Inc.	
EU0570	KP03A	Raw Blend Silo (B-0704)	SMH Engineering Inc.	
EU0580	KP03B	Transfer Belt (KB-1200)	SMH Engineering Inc.	
EU0590	KP04A	Raw Blend Elevator (KB-1600)	Bernard Beumer	
EU0600	KP04B	Air Slide (KB-1808)	Miltronics Limited	
EU0610	KP04C	Kiln Feed Bin (KB-1700)	Miltronics Limited	
EU0620	KP07A	Truck Loading (KB-3821)	Ashtek Corp./M-16	
EU0630	KP07B	CKD Storage Silo (KB-3800)	Kaiser Engineering	
EU0640	KP07C	CKD Storage Silo (KB-3900)	Kaiser Engineering	
EU0650	KP10	Drag Conveyor (KC-501)	Willis & Paul Corp.	
EU0660	KP10	Drag Conveyor (KC-502)	Willis & Paul Corp.	
EU0670	KP11A	Elevator (KC-0601)	Rexnard Inc./#1618-05M	
EU0680	KP11B	Elevator (KC-0602)	Rexnard Inc./#1618-05M	
EU0690	KP12	Truck Loading from Clinker Emergency Dump Tank (W-6602)		
EU0710	KP14A	Clinker Storage Pile Farm		
EU0720	KP14B	Clinker Storage Pile Farm (Enclosed)		
EU0730	KP15A	Hopper Loading (W-9200)	Kaiser Engineering	
EU0740	KP15B	Transfer Belt (W-7900)	Willis & Paul Corp.	
EU0750	KP15C	Transfer Belt (W-8200)	Willis & Paul Corp.	
EU0760	KP16A	Transfer Belt (KC-100)	Custom Made	
EU0770	KP16B	Diverter Box (KC-0603)	Willis & Paul Corp.	
EU0780	KP16C	Clinker Bin (W-6601)	Penta Engineering Corp.	

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model	Construction Date
EU0790	KP17A	Storage Silo (W-4508) (#4 Mill - Fringe)	SMH Engineering Corp.	
EU0800	KP17B	Storage Silo (W-4509) (#4 Mill - Clinker)	SMH Engineering Corp.	
EU0810	KP17C	Storage Silo (W-4510) (#5 Mill - Clinker)	SMH Engineering Corp.	
EU0820	KP18A	Transfer Belt (KC-2600)		
EU0830	KP18A	Transfer Belt (KC-2620)		
EU0840	KP18B	Clinker Storage Silo (KC-2901)	River Consulting	
EU0850	KP18B	Clinker Storage Silo (KC-2902)	River Consulting	
EU0860	KP18B	Clinker Storage Silo (KC-2903)	River Consulting	
EU0870	KP18A	Transfer Belt (KC-2630)		
EU0880	KP19	Weigh Feeder (KC-3002)	Merrick	
EU0880A	KP19	Weigh Feeder (KC-3001)	Merrick	
EU0880B	KP19	Weigh Feeder (KC-3003)	Merrick	
EU0880C	KP19	Weigh Feeder (KC-3004)	Merrick	
EU0880D	KP19	Weigh Feeder (KC-3006)	Merrick	
EU0880E	KP19	Weigh Feeder (KC-3007)	Merrick	
EU0880F	KP19	Weigh Feeder (KC-3009)	Merrick	
EU0890	KP19	Weigh Feeder (KC-3005)	Merrick	
EU0900	KP19	Weigh Feeder (KC-3008)	Merrick	
EU0910	KP19A	Transfer Belt (KC-3200)		
EU0920	KP19B	Bucket Elevator (KC-3400)	Rexnard	
EU0930	KP21	Bucket Elevator (KC-2550)		
EU0940	KP20	Transfer Belt (KC-3600)		
EU0950	KP23	Clinker Truck Loading		
EU0960	KP25A	Hopper Loading (TL-5000)	Frucon Engineering	
EU0970	KP25B	Transfer Belt (TL-5300)	Frucon Engineering	
EU0980	KP25C	Transfer Belt (TL-5500)	Frucon Engineering	
EU0990	KP26	Barge Loading		
EU1000	FM01A	#4 Mill Drag Conveyor (F-8701)	Rexnard Inc.	
EU1010	FM01	#5 Mill Drag Conveyor (F-12701)	Rexnard Inc.	
EU1020	FM01A-1	#4 Mill Bucket Elevator (F-8702)	Rexnard Inc.	
EU1030	FM01-1	#5 Mill Bucket Elevator (F-12702)	Rexnard Inc.	
EU1040	FM02	Finish Mill #5 (F-12900)	Allis Chalmers	
EU1050	FM02A	Finish Mill #4 (F-8900)	Allis Chalmers	
EU1060	FM03A-1	#5 Mill Separator (F-13500)	Combustion Engineering Inc.	
EU1070	FM03A-2	#4 Mill Separator (F-9500)	Combustion Engineering Inc.	
EU1080	FM3B1	Hopper for Finish Mill #4 (Surge Bin)		
EU1090	FM3B1	Air Slide for Finish Mill #4		
EU1100	FM3B2	Hopper for Finish Mill #5 (Surge Bin)		
EU1110	FM3B2	Air Slide for Finish Mill #5		

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model	Construction Date
EU1120	FM04A	Masonry Silo 37		
EU1130	FM04B	Masonry Silo 38	Kaiser Engineering	
EU1140	FM04B	Masonry Silo 39	Kaiser Engineering	
EU1150	FM04B	New Cement Silo 40	Kaiser Engineering	
EU1160	FM04B	New Cement Silo 41	Kaiser Engineering	
EU1170	FM04A	New Cement Silo 42	Kaiser Engineering	
EU1180	FM04A	New Cement Silo 43	Kaiser Engineering	
EU1190	FM04B	New Cement Silo 44	Kaiser Engineering	
EU1200	FM04B	New Cement Silo 45	Kaiser Engineering	
EU1210	FM04B	New Cement Silo 46	Kaiser Engineering	
EU1220	FM06	Old Cement Silo 21	Marquette Cement Mfg. Co.	
EU1230	FM06	Old Cement Silo 22	Marquette Cement Mfg. Co.	
EU1240	FM06	Old Cement Silo 23	Marquette Cement Mfg. Co.	
EU1250	FM06	Old Cement Silo 24	Marquette Cement Mfg. Co.	
EU1260	FM06	Old Cement Silo 25	Marquette Cement Mfg. Co.	
EU1270	FM06	Old Cement Silo 26	Marquette Cement Mfg. Co.	
EU1280	FM06	Old Cement Silo 27	Marquette Cement Mfg. Co.	
EU1290	FM06	Old Cement Silo 28	Marquette Cement Mfg. Co.	
EU1300	FM06	Old Cement Silo 29	Marquette Cement Mfg. Co.	
EU1310	FM06	Old Cement Silo 30	Marquette Cement Mfg. Co.	
EU1320	FM06	Old Cement Silo 31	Marquette Cement Mfg. Co.	
EU1330	FM06	Old Cement Silo 32	Marquette Cement Mfg. Co.	
EU1340	FM06	Old Cement Silo 33	Marquette Cement Mfg. Co.	
EU1350	FM06	Old Cement Silo 34	Marquette Cement Mfg. Co.	
EU1360	FM06	Old Cement Silo 35	Marquette Cement Mfg. Co.	
EU1370	FM06	Old Cement Silo 36	Marquette Cement Mfg. Co.	
EU1380	FM09	River Cement Silo 47		
EU1390	FM09	River Cement Silo 48		
EU1400	FM09A	River Cement Silo 49		
EU1410	FM07	Cement Transfer Belt (D-4800)	Willis & Paul Corp.	
EU1430	FM05	Cement Transfer Belt (D-4100)	Willis & Paul Corp.	
EU1440	FM05A	Cement Transfer Belt (D-4200)	Willis & Paul Corp.	
EU1450	FM10	Barge Loading (TL-0800)	Fuller Co.	
EU1460	FM08A	Distribution Box (D-6900)	Willis & Paul Corp.	
EU1470	FM08B	Elevator (TL-0400)	Rexnord Inc.	
EU1480	FM08C	Air Slide (TL-0500)	Willis & Paul Corp.	
EU1490	FM11	Cement Bins (Truck)	Marquette Cement Mfg. Co.	
EU1500	FM12	Truck/Rail Loading	Marquette Cement Mfg. Co.	
EU1510	FM13	Raw Material Storage Silo (W-4513)	SMH Engineering Inc.	

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model	Construction Date
EU1520	FM13	Truck Unloading (CKD to W-4513 silo)		
EU1530 -	AF03	Blend Tank	Standby Batch System/ SF1000-06	
EU1560 EU1570 -	AF03A	Blend Tank	Standby Batch System/ SF600	
EU1580 EU1590	AF03B	Burn Tanks		
E01600	AF07	Mixing Tank	Shar Systems/ ESH 1000 TFZ	
EU1610	AF08	Filter Cleaning/Pail Loading		
EU1620	MS11	Backup Generator, Diesel Fuel, 470 kW		
EU1630	MS11	Backup Generator, Diesel Fuel, 500 kW		
EU1640	Raw Material Storage Piles			
	RM15	Diaspore		
	RM16	Tripoli		
	RM23	Gypsum		
	RM24	Millscale		
	TH03, TH06	Slag		

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment which does not have unit specific limitations at the time of permit issuance.

EIQ Reference #	Description of Emission Unit
RM01	Drilling
RM03	Quarry (Raw Material) Truck Loading
RM04	Quarry Haul Road
RM05	Hopper – Vibrating Feeder (A-1601)
RM06A	Primary Crusher (A-1700)
RM06B	Primary Crusher Transfer Belt (A-1900)
RM06C	Primary Crusher Transfer Belt (A-2000)
RM07	Chute – Splitter Box (A-2002)
RM12	Transfer Belt From Crusher to Piles (A-2500)
RM12	Transfer Belt From Crusher to Piles (A-2600)
RM13	Transfer Belt to Piles #1 (A-3300)
RM13	Transfer Belt to Piles #4 (A-3400)
RM14	Raw Material Storage Pile – Limestone
RM20	Piles in Shed
RM22	Haul Road to Raw Material Storage
CH02	Haul Road
CH03	Solid Fuel Storage Pile (Coal)
TH02	Slag Haul Road
KP08	Haul Road to Landfill
KP12A	Clinker Haul Road
KP24	Internal Plant Clinker Hauling
AF01	Alternative Fuels - Haul Road

EIQ	
Reference #	Description of Emission Unit
AF13	Miscellaneous Painting
AF11	Propane Tank (3)
MS01	Parts Washers (4)– 35 Gallon – Mineral Spirits
MS02	Three Lube Oil Storage Tanks – Tank #2, 5, & 6, 300 Gallon Each
MS03	Two Gasoline Storage Tanks: Tank #9 – 550 Gallon Tank #19 – 300 Gallon
MS05	Waste Oil Tank #10– 1000 Gallon
MS08	Diesel Storage Tanks (11): Tank #7 – 8,000 Gallon – Quarry Tank #8 – 10,000 Gallon – Quarry Tank #11 – 300 Gallon – Additive Crusher Tank #12 – 300 Gallon – River Unloading Dock Tank #13 – 150 Gallon – Spray Pond Tank #15 – 560 Gallon – Courtyard Tank #16 – 200 Gallon – Plant Generator Tank #18 – 300 Gallon – Parking Lot Tank #27 – 300 Gallon – Alternate Fuels Tank #28 – 500 Gallon – Electric Room 17 Generator Tank # 37 – 100 Gallon – Portable
MS10	Storage Tanks #3 and 4 – 150 Gallon Oil Tanks – Quarry Garage
MS6	Storage Tank #14a & 14b – 20,000 Gallon each Diesel Tank – Plant Storage Tank #17 – 550 Gallon Kerosene Tank – Plant Parking Lot Storage Tank #24 – 12,000 Gallon Air Entraining Tank – Plant Finish Mill
MS07	2 Space Heaters – Kerosene - 0.3 MMBtu/Hr (each)
MS07	4 Space Heaters – Kerosene - 0.1 MMBtu/Hr (each)
AF10, MS04 & MS09	Vehicle Refueling (Diesel and Gasoline) Pump-Off Station/Pail Loading Unloader/Crusher Landfill

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit Number: 0691-010, Issued June 26, 1991;
- 2) Construction Permit Number: 0392-001, Issued March 4, 1992;
- 3) Construction Permit Number: 0693-009, Issued June 16, 1993;
- 4) Construction Permit Number: 1197-012A, Issued June 15, 2000;
- 5) Construction Permit Number: 0496-007A, Issued August 22, 2002.

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Condition PW001

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants¹

Emission Limitation:

- 1) Except as required under more stringent regulation, the permittee shall not cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
- 3) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment A-2)

¹ 10 CSR 10-6.220 – Permit Condition PW001 does not apply to emission units regulated by 40 CFR Part 60, Subparts Y and OOO and 40 CFR Part 63, Subparts EEE and LLL.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Permit Condition PW002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry**

- Startup, Shutdown and Malfunction Plan - §63.1354(b)(4) and (b)(5)

**40 CFR Part 63, Subpart A, General Provisions - Startup, Shutdown and Malfunction Plan -
§63.6(e)(3)**

Emission Limitation:

The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under §63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable continuous monitoring systems (CMS) malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit. The purpose of the startup, shutdown, and malfunction plan is to: [§63.6(e)(3)(i)]

- 1) Ensure that, at all times, owners or operators operate and maintain affected sources including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; [§63.6(e)(3)(i)(A)]
- 2) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and [§63.6(e)(3)(i)(B)]
- 3) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). [§63.6(e)(3)(i)(C)]

Alternate Operating Scenario:

Pursuant to 40 CFR 63.1340(b)(1), the provisions of 40 CFR Part 63, Subpart LLL (PC MACT) apply to the kilns and in-line kiln/raw mills only during periods when hazardous waste is not being combusted in the kiln. While hazardous waste is being combusted in the kiln, provisions of 40 CFR Part 63, Subpart EEE apply. The default mode of operation for the kiln is burning hazardous waste.

Monitoring:

- 1) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards. [§63.6(e)(1)(i)]
- 2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in §63.6(e)(3) of this section. [§63.6(e)(1)(ii)]

Recordkeeping:

- 1) The owner or operator shall keep the written startup, shutdown, and malfunction plan on-record after it is developed to be made available for inspection, upon request, by the administrator for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR, Part 63. If the startup, shutdown, and malfunction plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record, upon request by the administrator, for the period of 5 years after each revision to the plan. [§63.6(e)(3)(v)]
- 2) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the start-up, shutdown and malfunction plan, the owner or operator shall keep records for that event that demonstrate the procedures specified in the plan were followed. These records may take the form of a “checklist,” or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition the owner or operator shall keep records of these events as specified in §63.10(b) (and elsewhere in this Part), including records of the occurrence and duration of each startup, shutdown, or malfunction operation and each malfunction of the air pollution control equipment. [§63.6(e)(3)(iii)]
- 3) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event. [§63.6(e)(3)(iv)]

Reporting:

- 1) As required by §63.10(d)(5), if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source’s startup, shutdown, and malfunction plan specified in §63.6(e)(3), the owner or operator shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and [§63.1354(b)(4)]
- 2) Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. [§63.1354(b)(5)]

Permit Condition PW003

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry**

– Operations and Maintenance Plan - §63.1350(a) and (b)

**40 CFR Part 63, Subpart A, General Provisions – Operation and Maintenance Requirements -
§63.6(e)(1) and (2)**

Emission Limitation:

- 1) The owner or operator of each Portland cement plant shall prepare for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan shall include the following information: [§63.1350(a)]

- a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §§63.1343 through 63.1348; [§63.1350(a)(1)]
- b) Corrective actions to be taken when required by §63.1350(e); [§63.1350(a)(2)]
- c) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year; and [§63.1350(a)(3)]
- d) Procedures to be used to periodically monitor affected sources subject to opacity standards under §§63.1346 and 63.1348. Such procedures must include the provisions of §63.1350(a)(4)(i) through (a)(4)(iv). [§63.1350(a)(4)]
 - i) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
 - ii) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 (6) consecutive monthly tests. [§63.1350(a)(4)(ii)]
 - 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 emission are observed in six (6) consecutive monthly test. [§63.1350(a)(4)(iii)]
 - iv) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]
- 2) Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph §63.1350(a) shall be a violation of the standard. [§63.1350(b)]
- 3) Operation and maintenance requirements established pursuant to Section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. [§63.6(e)(1)(iii)]

Alternate Operating Scenario:

Pursuant to 40 CFR 63.1340(b)(1), the provisions of 40 CFR Part 63, Subpart LLL (PC MACT) apply to the kilns and in-line kiln/raw mills only during periods when hazardous waste is not being combusted in the kiln. While hazardous waste is being combusted in the kiln, provisions of 40 CFR Part 63, Subpart EEE apply. The default mode of operation for the kiln is burning hazardous waste.

Monitoring:

- 1) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards. [§63.6(e)(1)(i)]
- 2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in §63.6(e)(3) of this section. [§63.6(e)(1)(ii)]

Recordkeeping:

- 1) The owner or operator shall keep a copy of the Operations and Maintenance plan on-site at all times. The plan shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 2) As specified in the Operations and Maintenance Plan

Reporting:

- 1) The plan shall be submitted to the Administrator for review and approval as part of the application for a Part 70 permit. [§63.1350(a)]

- 2) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a) shall be included in the semiannual summary report. [§63.1354(b)(9)(v)]

Permit Condition PW004

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

– Notification Requirements - §63.1353,

– Reporting Requirements - §63.1354(a) and

– Recordkeeping Requirements - §63.1355(a) and (b)

Emission Limitation:

- 1) The notification provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification. [§63.1353(a)]
- 2) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as listed below. [§63.1353(b)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operators shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3) of this Part; and [§63.1355(b)]
- a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
- b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
- c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

- 1) Initial notifications as required by §63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under Part 70 of this Chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. [§63.1353(b)(1)]
- 2) Notification of performance tests, as required by §§63.7 and 63.9(e). [§63.1353(b)(2)]
- 3) Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f). [§63.1353(b)(3)]
- 4) Notification, as required by §63.9(g), of the date that the continuous emission monitor performance evaluation required by §63.8(e) is scheduled to begin. [§63.1353(b)(4)]

- 5) Notification of compliance status, as required by §63.9(h). [§63.1353(b)(5)]
- 6) The reporting provisions of Subpart A of this part that apply and those that do not apply to owners or operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report. [§63.1354(a)]
- 7) As required by §63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports by the dates specified in the written extension of compliance. [§63.1354(b)(3)]
- 8) The owner or operator shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [§63.1354(b)(9)]
 - a) All exceedances of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b); [§63.1354(b)(9)(i)]
 - b) All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(f)(7); and [§63.1354(b)(9)(ii)]
 - c) All failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under §63.1344(c). [§63.1354(b)(9)(iii)]
 - d) The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i). [§63.1354(b)(9)(iv)]
 - e) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1354(b)(9)(v)]

Permit Condition PW005

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement

Manufacturing Industry

- Performance Testing Requirements - §63.1349

Emission Limitation:

The owner or operator of any affected source subject to this subpart shall demonstrate initial compliance with the emission limits of §63.1343 and §63.1345 through §63.1348 using the test methods and procedures in §63.1349(b) and §63.7. [§63.1349(a)]

Alternate Operating Scenario:

Pursuant to 40 CFR 63.1340(b)(1), the provisions of 40 CFR Part 63, Subpart LLL (PC MACT) apply to the kilns and in-line kiln/raw mills only during periods when hazardous waste is not being combusted in the kiln. While hazardous waste is being combusted in the kiln, provisions of 40 CFR Part 63, Subpart EEE apply to the kilns and in-line kiln/raw mills. The default mode of operation for the kiln is burning hazardous waste.

Performance Testing:

Performance tests to demonstrate initial compliance with this subpart shall be conducted as specified in §63.1349(b)(1) through §63.1349(b)(4). [§63.1349(b)]

Monitoring:

As required by the test methods and procedures in §63.1349(b) and §63.7.

Recordkeeping:

- 1) As required by the test methods and procedures in §63.1349(b) and §63.7
- 2) These records shall be kept for at least five (5) years and shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

Performance test results shall be documented in complete test reports that contain the information required by §63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested. [§63.1349(a)]

- 1) A brief description of the process and the air pollution control system; [§63.1349(a)(1)]
- 2) Sampling location description(s); [§63.1349(a)(2)]
- 3) A description of sampling and analytical procedures and any modification to standard procedures; [§63.1349(a)(3)]
- 4) Test results; [§63.1349(a)(4)]
- 5) Quality assurance procedures and results; [§63.1349(a)(5)]
- 6) Records of operating conditions during the test, preparation of standards, and calibration procedures; [§63.1349(a)(6)]
- 7) Raw data sheets for field sampling and field and laboratory analyses; [§63.1349(a)(7)]
- 8) Documentation of calculation; [§63.1349(a)(8)]
- 9) All data recorded and used to establish parameters for compliance monitoring; and [§63.1349(a)(9)]
- 10) Any other information required by the test method. [§63.1349(a)(10)]

Permit Condition PW006

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement

Manufacturing Industry

- Alternate Monitoring Requirements - §63.1350

Emission Limitation:

- 1) An owner or operator may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart, except for emission standards for THC, subject to the provisions of §63.1350(l)(1) through (l)(6). [§63.1350(l)]
- 2) The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart. [§63.1350(l)(6)]

Alternate Operating Scenario:

Pursuant to 40 CFR 63.1340(b)(1), the provisions of 40 CFR Part 63, Subpart LLL (PC MACT) apply to the kilns and in-line kiln/raw mills only during periods when hazardous waste is not being combusted in the kiln. While hazardous waste is being combusted in the kiln, provisions of 40 CFR Part 63, Subpart EEE apply to the kilns and in-line kiln/raw mills. The default mode of operation for the kiln is burning hazardous waste.

Monitoring:

If the application to use an alternate monitoring requirement is approved, the owner or operator must continue to use the original monitoring requirement until approval is received to use another monitoring requirement. [§63.1350(l)(2)]

Recordkeeping:

- 1) If the application to use an alternate monitoring requirement is approved, the owner or operator must continue to use the original recordkeeping requirements for the original monitoring requirements until approval is received to use another monitoring requirement.
- 2) These records shall be kept for at least five (5) years and shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The Administrator will not approve averaging periods other than those specified in this section, unless the owner or operator documents, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any increment of time equivalent to the time required to conduct three (3) runs of the performance test. [§63.1350(1)(1)]
- 2) The owner or operator shall submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in §63.1350(1)(3)(i) through (1)(3)(iii): [§63.1350(1)(3)]
 - a) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach. [§63.1350(1)(3)(i)]
 - b) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and [§63.1350(1)(3)(ii)]
 - c) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard. [§63.1350(1)(3)(iii)]
- 3) The Administrator will notify the owner or operator of the approval or denial of the application within ninety (90) calendar days after receipt of the original request, or within sixty (60) calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide: [§63.1350(1)(4)]
 - a) Notice of the information and findings upon which the intended disapproval is based; and [§63.1350(1)(4)(i)]
 - b) Notice of opportunity for the owner or operator to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the owner or operator to provide additional supporting information. [§63.1350(1)(4)(ii)]
- 4) The owner or operator is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provision of this subpart. [§63.1350(1)(5)]

Permit Condition PW007

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Monitoring and Compliance Provisions - §63.1206(a) through (b)(5)**

Compliance with Standards

- 1) *Applicability.* The emission standards and operating requirements apply at all times except: [§63.1206(b)(1)]
 - a) During periods of startup, shutdown and malfunction; and, [§63.1206(b)(1)(i)]
 - b) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period of time not less than the hazardous waste residence time), and the owner or operator has documented in the operating record that the owner or operator is complying with the alternate mode of compliance defined in Appendix A of the Initial Comprehensive Performance Test Plan, or otherwise applicable requirements and standards promulgated under authority of Sections 112 (e.g., subpart LLL of this part for cement kilns) or 129 of the Clean Air Act in lieu of the emission

standards of §§63.1203 through 63.1205 and 63.1215 through 63.1221; the monitoring and compliance standards of §63.1206 and §§63.1207 through 63.1209, except the modes of operation requirements of §63.1209(q); and the notification, reporting, and recordkeeping requirements of §§63.1210 through 63.1212. [§63.1206(b)(1)(ii)]

- 2) *Methods for determining compliance.* The Administrator will determine compliance with the emission standards of this subpart as provided by §63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §§63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions. [§63.1206(b)(2)]
- 3) *Finding of compliance.* The Administrator will make a finding concerning compliance with the emission standards and other requirements of this subpart as provided by §63.6(f)(3). [§63.1206(b)(3)]
- 4) *Extension of compliance with emission standards.* The Administrator may grant an extension of compliance with the emission standards of this subpart as provided by §§63.6(i) and 63.1213. [§63.1206(b)(4)]
- 5) *Changes in design, operation or maintenance that may adversely affect compliance.* If the owner or operator plans to change (as defined in §63.1205(b)(5)(iii)) the design, operation or maintenance practices of the source in a manner that may adversely affect compliance with an emission standard that is not monitored with a CEMS: [§63.1206(b)(5)(i)]
 - a) *Notification.* You must notify the Administrator at least 60 days prior to the change, unless you document circumstances that dictate that such prior notice is not reasonably feasible. The notification must include: [§63.1206(b)(5)(i)(A)]
 - i) A description of the changes and which emission standards may be affected; and [§63.1206(b)(5)(i)(A)(1)]
 - ii) A comprehensive performance test schedule and test plan under the requirements of §63.1207(f) that will document compliance with the affected emission standard(s) [§63.1206(b)(5)(i)(A)(2)]
 - b) *Performance Testing.* You must conduct a comprehensive performance test under the requirements of §§63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d); and [§63.1206(b)(5)(i)(B)]
 - c) *Restriction on waste burning:* [§63.1206(b)(5)(i)(C)]
 - i) Except as provided by §63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, you must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at §63.1207(h)(2)(i) and (ii). [§63.1206(b)(5)(i)(C)(1)]
 - ii) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. [§63.1206(b)(5)(i)(C)(2)]
- 6) *Changes that will not affect compliance.* If you determine that a change will not adversely affect compliance with the emission standards or operating requirements, you must document the change in the operating record upon making such change. You must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes. [§63.1206(b)(5)(ii)]
- 7) *Definition of "change."* For purposes of paragraph (b)(5) of this section, "change" means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan. [§63.1206(b)(5)(iii)]

Compliance Dates:

- 1) *Compliance date for standards under §63.1204.* You must comply with the emission standards under §63.1204 and the other requirements of this subpart no later than the compliance date, September 30, 2003, unless the Administrator grants you an extension of time under §63.6(i) or §63.1213, except:
[§63.1206(a)(1)(i)(A)]
 - a) Cement kilns are exempt from the bag leak detection system requirements under paragraph (c)(8) of this section. [§63.1206(a)(1)(i)(A)(I)]
- 2) *Compliance date for standards under §63.1220.* You must comply with the emission standards under §63.1220 and the other requirements of this subpart no later than the compliance date, October 14, 2008, unless the Administrator grants you an extension of time under §63.6(i) or §63.1213. [§63.1206(a)(1)(ii)(A)]

Permit Condition PW008

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors

- Operating Requirements

- General - §63.1206(c)(1)

- Startup, Shutdown and Malfunction Plan - §63.1206(c)(2)

- Automatic Waste Feed Cutoff (AWFCO) - §63.1206(c)(3)

40 CFR Part 63, Subpart A, General Provisions – Startup, Shutdown and Malfunction Plan - §63.6(e)(3)

General Requirements [§63.1206(c)(1)]:

- 1) You must operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(d), except:
[§63.1206(c)(1)(i)]
 - a) During performance tests under approved test plans according to §63.1207(e), (f), and (g), and [§63.1206(c)(1)(i)(A)]
 - b) Under the conditions of §63.1206(b)(1)(i) or (ii). [§63.1206(c)(1)(i)(B)]
- 2) The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements in §63.1206(c) and §63.1209. [§63.1206(c)(1)(ii)]
- 3) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart. [§63.1206(c)(1)(iii)]
- 4) Operating requirements in the Notification of Compliance are applicable requirements for purposes of Parts 70 and 71 of this Chapter. [§63.1206(c)(1)(iv)]
- 5) The operating requirements specified in the Notification of Compliance will be incorporated in the Title V permit. [§63.1206(c)(1)(v)]

Startup, Shutdown, and Malfunction Plan [§63.1206(c)(2)]

- 1) Except as provided by §63.1260(c)(2)(ii), the permittee is subject to the Start-up, Shutdown and Malfunction plan requirements of §63.6(e)(3). [§63.1206(c)(2)(i)]
- 2) You must identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. [§63.1206(c)(2)(iii)]
- 3) You must record the plan in the operating record. [§63.1206(c)(2)(iv)]
- 4) The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under §63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be

incorporated by reference into the source's Title V permit. The purpose of the startup, shutdown, and malfunction plan is to: [§63.6(e)(3)(i)]

- a) Ensure that, at all times, owners or operators operate and maintain affected sources including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; [§63.6(e)(3)(i)(A)]
 - b) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and [§63.6(e)(3)(i)(B)]
 - c) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). [§63.6(e)(3)(i)(C)]
- 5) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3) of this section. [§63.6(e)(3)(ii)]
- 6) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the Start-up, Shutdown and Malfunction plan, the owner or operator shall keep records for that event that demonstrate the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition the owner or operator shall keep records of these events as specified in §63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction operation and each malfunction of the air pollution control equipment. [§63.6(e)(3)(iii)]
- 7) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event. [§63.6(e)(3)(iv)]
- 8) *Operating under the startup, shutdown, and malfunction plan* [§63.1206(c)(2)(v)]
- a) Compliance with automatic waste feed cutoff (AWFCO) requirements during malfunctions.
 - i) During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for §63.1206(c)(3)(v) and (c)(3)(vi). If you exceed a part 63, Subpart EEE, of this chapter emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed, except as provided by §63.1206(c)(3)(viii). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible. [§63.1206(c)(2)(v)(A)(1)]
 - ii) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of this subpart if you take the corrective measures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(A)(2)]
 - iii) Excessive exceedances during malfunctions. For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must: [§63.1206(c)(2)(v)(A)(3)]
 - (1) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and [§63.1206(c)(2)(v)(A)(3)(i)]
 - (2) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3). [§63.1206(c)(2)(v)(A)(3)(ii)]

- b) Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.
 - i) If you feed hazardous waste during startup or shutdown, you must include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(B)(1)]
 - ii) You must interlock the operating limits you establish under §63.1206(c)(2)(v)(B)(1) with the automatic waste feed cutoff system required under §63.1206(c)(3), except for §63.1206(c)(3)(v) and (c)(3)(vi). [§63.1206(c)(2)(v)(B)(2)]
 - iii) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed if you exceed the operating limits you establish under §63.1206(c)(2)(v)(B)(1), except as provided by §63.1206(c)(3)(viii). [§63.1206(c)(2)(v)(B)(3)]
 - iv) Although the automatic waste feed cutoff requirements of this paragraph apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of this subpart if you comply with the operating procedures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(B)(4)]

Automatic Waste Feed Cutoff (AWFCO) [§63.1206(c)(3)]

- 1) *General.* Upon the compliance date, you must operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by §63.1206(c)(3)(viii): [§63.1206(c)(3)(i)]
 - a) When any of the following are exceeded: Operating parameter limits specified under §63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure; [§63.1206(c)(3)(i)(A)]
 - b) When the span value of any CMS detector, except a CEMS, is met or exceeded; [§63.1206(c)(3)(i)(B)]
 - c) Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or [§63.1206(c)(3)(i)(C)]
 - d) When any component of the automatic waste feed cutoff system fails. [§63.1206(c)(3)(i)(D)]
- 2) *Ducting of combustion gases.* During an AWFCO, you must continue to duct combustion gasses to the air pollution control system while hazardous waste remains in the combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). [§63.1206(c)(3)(ii)]
- 3) *Restarting waste feed.* You must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and you must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits. [§63.1206(c)(3)(iii)]
- 4) *Failure of the AWFCO system.* If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under §63.1206(c)(3)(i), you have failed to comply with the AWFCO requirements of paragraph (c)(3) of this section. If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, you must cease feeding hazardous waste as quickly as possible. [§63.1206(c)(3)(iv)]
- 5) *Corrective measures.* If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (i.e., whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), you must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record. [§63.1206(c)(3)(v)]
- 6) *Excessive exceedance reporting.* [§63.1206(c)(3)(vi)]
 - a) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, you must submit to the Administrator a written report within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken. [§63.1206(c)(3)(vi)(A)]

- b) On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period. [§63.1206(c)(3)(vi)(B)]
- 7) *Testing*. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record AWFCO operability test procedures and results. [§63.1206(c)(3)(vii)]
- 8) *Ramping down waste feed*. [§63.1206(c)(3)(viii)]
 - a) You may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by §63.1206(c)(3)(viii)(B). If you elect to ramp down the waste feed, you must document ramp down procedures in the operating and maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, you have failed to comply with the emission standards or operating requirements of this subpart. [§63.1206(c)(3)(viii)(A)]
 - b) The automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, you may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for your combustor. [§63.1206(c)(3)(viii)(B)]

Permit Condition PW009

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
- Operating Requirements
- Combustion System Leaks §63.1206(c)(5)**

Combustion System Leaks [§63.1206(c)(5)]

- 1) Combustion system leaks of hazardous air pollutants must be controlled by keeping the combustion zone sealed to prevent combustion system leaks. [§63.1206(c)(5)(i)(A)]
- 2) You must specify in the performance test workplan and Notification of Compliance the method that will be used to control combustion system leaks. If you control combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, you must also specify in the performance test workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system. [§63.1206(c)(5)(ii)]

Monitoring:

Combustion System Leaks:

- 1) If you comply with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure to prevent combustion systems leaks from hazardous waste combustion, you must perform instantaneous monitoring of pressure and the automatic waste feed cutoff system must be engaged when negative pressure is not adequately maintained. [§63.1209(p)]
- 2) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [§63.1209(b)(1)]
- 3) You must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]

- 4) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
- 5) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
- 6) Calculation of Rolling Averages: [§63.1209(b)(5)]
 - a) Continuous monitoring systems must begin recording one (1)-minute average values by 12:01 am on the compliance date and begin recording rolling averages when enough one (1)-minute average values are available to calculate the required rolling average (e.g., when sixty (60) one (1)-minute averages are available to calculate an hourly rolling average; when seven hundred twenty (720) one (1)-minute averages are available to calculate a twelve (12) hour rolling average). [§63.1209(b)(5)(i)]
 - b) The permittee must ignore periods of time when one (1)-minute values are not available for calculating the rolling averages. When one (1)-minute values become available again, the first one (1)-minute value is added to the previous one (1)-minute values to calculate rolling average. [§63.1209(b)(5)(ii)]
 - c) Calculation of rolling averages when the hazardous waste feed is cutoff. [§63.1209(b)(5)(iii)]
 - i) Except as provided by §63.1209(b)(5)(iii)(B), you must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - ii) You are not subject to the CMS requirements during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]

Recordkeeping:

- 1) Pursuant to §63.1206(c)(5)(ii), the permittee must specify in the operating record the method used for control of combustion system leaks.
- 2) If the permittee complies with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure, the permittee shall maintain records of the data recorded by the continuous monitoring system.

Reporting:

Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition PW010

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors

- Operating Requirements

- Operator Training and Certification - §63.1206(c)(6)

Emission Limitation:

- 1) You must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified §63.1206(c)(6)(iii) and (vi). [§63.1206(c)(6)(i)]

- 2) You must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. [§63.1206(c)(6)(ii)]
- 3) The training and certification program must be approved by the state or the Administrator and must be complete and reliable and conform to principles of good operator and operating practices (including training and certification). [§63.1206(c)(6)(iv)]
- 4) Control room operators of cement kilns must be trained and certified under: [§63.1206(c)(6)(iv)]
 - a) A site-specific, source-developed and implemented program that meets the requirements of §63.1206(c)(6)(v). [§63.1206(c)(6)(iv)(A)]
 - b) A State program. [§63.1206(c)(6)(iv)(B)]
- 5) Site-specific, source developed and implemented training programs for control room operators must include the following elements: [§63.1206(c)(6)(v)]
 - a) Training on the following subjects: [§63.1206(c)(6)(v)(A)]
 - i) Environmental concerns, including types of emissions; [§63.1206(c)(6)(v)(A)(1)]
 - ii) Basic combustion principles, including products of combustion; [§63.1206(c)(6)(v)(A)(2)]
 - iii) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures; [§63.1206(c)(6)(v)(A)(3)]
 - iv) Combustion controls and continuous monitoring systems; [§63.1206(c)(6)(v)(A)(4)]
 - v) Operation of air pollution control equipment and factors affecting performance; [§63.1206(c)(6)(v)(A)(5)]
 - vi) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices; [§63.1206(c)(6)(v)(A)(6)]
 - vii) Actions to correct malfunctions or conditions that may lead to malfunction; [§63.1206(c)(6)(v)(A)(7)]
 - viii) Residue characteristics and handling procedures; and [§63.1206(c)(6)(v)(A)(8)]
 - ix) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and [§63.1206(c)(6)(v)(A)(9)]
 - b) An examination designed and administered by the instructor; and [§63.1206(c)(6)(v)(B)]
 - c) Written material covering the training course topics that may serve as reference material following completion of the course. [§63.1206(c)(6)(v)(B)]
- 6) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by §63.1206(c)(6)(v), control room operators must complete an annual review or refresher course covering, at a minimum, the following topics: [§63.1206(c)(6)(vi)]
 - a) Update of regulations; [§63.1206(c)(6)(vi)(A)]
 - b) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling; [§63.1206(c)(6)(vi)(B)]
 - c) Inspection and maintenance; [§63.1206(c)(6)(vi)(C)]
 - d) Responses to malfunctions or conditions that may lead to malfunction; and [§63.1206(c)(6)(vi)(D)]
 - e) Operating problems encountered by the operator. [§63.1206(c)(6)(vi)(E)]

Recordkeeping:

You must record the operator training and certification program in the operating record. [§63.1206(c)(6)(vii)]

Permit Condition PW011

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Reporting Requirements - §63.1211(a)**

**40 CFR Part 63, Subpart A, General Provisions – Excess Emissions and Continuous Monitoring
System Performance Report and Summary Report §63.10(e)(3)**

Emission Limitation:

- 1) You must submit excessive emissions and continuous monitoring system performance report and summary report as required in §63.10(e)(3). [§63.1211(a)]
- 2) The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when— [§63.10(e)(3)(i)]
 - a) More frequent reporting is specifically required by a relevant standard; [§63.10(e)(3)(i)(A)]
 - b) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or [§63.10(e)(3)(i)(B)]
- 3) Notwithstanding the frequency of reporting requirements specified in §63.10(e)(3)(i), an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met: [§63.10(e)(3)(ii)]
 - a) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard; [§63.10(e)(3)(ii)(A)]
 - b) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and [§63.10(e)(3)(ii)(B)]
 - c) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in §63.10(e)(3)(iii). [§63.10(e)(3)(ii)(C)]
- 4) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in §63.10(e)(3)(ii) and §63.10(e)(3)(iii). [§63.10(e)(3)(iv)]
- 5) All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in §63.10(c)(5) through 63.10(c)(13), in §63.8(c)(7) and §63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report. [§63.10(e)(3)(v)]
- 6) 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 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 unless required by the Administrator. [§63.10(e)(3)(vii)]

- 7) 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, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted. [§63.10(e)(3)(viii)]

Reporting:

- 1) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted. [§63.10(e)(3)(iii)]
- 2) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. [§63.10(e)(3)(iv)]
- 3) Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in §63.10(c)(5) through 63.10(c)(13), in §63.8(c)(7) and §63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report. [§63.10(e)(3)(v)]
- 4) As required under §63.10(e)(3)(vii) and (viii), one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information: [§63.10(e)(3)(vi)]
 - a) The company name and address of the affected source; [§63.10(e)(3)(vi)(A)]
 - b) An identification of each hazardous air pollutant monitored at the affected source; [§63.10(e)(3)(vi)(B)]
 - c) The beginning and ending dates of the reporting period; [§63.10(e)(3)(vi)(C)]
 - d) A brief description of the process units; [§63.10(e)(3)(vi)(D)]
 - e) The emission and operating parameter limitations specified in the relevant standard(s); [§63.10(e)(3)(vi)(E)]
 - f) The monitoring equipment manufacturer(s) and model number(s); [§63.10(e)(3)(vi)(F)]
 - g) The date of the latest CMS certification or audit; [§63.10(e)(3)(vi)(G)]
 - h) The total operating time of the affected source during the reporting period; [§63.10(e)(3)(vi)(H)]
 - i) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes; [§63.10(e)(3)(vi)(I)]

- j) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes; [§63.10(e)(3)(vi)(J)]
- k) A description of any changes in CMS, processes, or controls since the last reporting period; [§63.10(e)(3)(vi)(K)]
- l) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and [§63.10(e)(3)(vi)(L)]
- m) The date of the report. [§63.10(e)(3)(vi)(M)]

Permit Condition PW012

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
- Operating Requirements**

- Operation and Maintenance Plan - §63.1206(c)(7)

**40 CFR Part 63, Subpart A, General Provisions – Operation and Maintenance Requirements -
§63.10(e)(1) and (2)**

Emission Limitation:

- 1) You must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants. [§63.1206(c)(7)(i)]
- 2) The plan must prescribe how you will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test. [§63.1206(c)(7)(ii)]
- 3) This plan ensures compliance with the operation and maintenance requirements of §63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions. [§63.1206(c)(7)(iii)]
- 4) Operation and maintenance requirements established pursuant to Section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. [§63.6(e)(1)(iii)]

Monitoring:

- 1) As specified in the operation and maintenance plan.
- 2) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures

(including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source. [§63.6(e)(1)(i)]

- 3) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in §63.6(e)(3) of this section. [§63.6(e)(1)(ii)]

Recordkeeping:

You must record the plan in the operating record. [§63.1206(c)(7)(iv)]

Permit Condition PW013

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
- Operating Requirements**

- Summary of Notification Requirements - §63.1210(a)

- Summary of Reporting Requirements - §63.1211(a)

Notification, Request, Petition or Application:

Summary of requirements: [§63.1210(a)]

- 1) You must submit the following notifications to the Administrator: [§63.1210(a)(1)]
- a) Initial notifications that you are subject to Subpart EEE of 40 CFR Part 63 as specified in §63.9(b).
 - b) Notification that you are subject to special compliance requirements as specified in §63.9(d).
 - c) Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan (You may also be required on a case-by-case basis to submit a feedstream analysis plan under §63.1209(c)(3)) as specified in §63.1207(e), §63.9(e), §63.9(g)(1) and (3).
 - d) Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations as specified in §63.1210(d), §63.1207(j), §63.9(h), §63.10(d)(2) and §63.10(e)(2).
- 2) You must submit the following notifications to the Administrator if you request or elect to comply with alternative requirements: [§63.1210(a)(2)]
- a) You permittee may request an extension of the compliance date for up to one year as specified in §63.1206(b)(4), §63.1213, §63.6(i) and §63.9(c).
 - b) You may request an adjustment to time periods or postmark deadlines for submittal and review of required information as specified in §63.9(i).
 - c) You may request approval of the following as specified in §63.1209(g)(1):
 - i) Alternatives to operating parameter monitoring requirements, except for standards that you must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or
 - ii) A waiver of an operating parameter limit.
 - d) You may request approval of the following as specified in §63.1209(a)(5) and §63.8(f):
 - i) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and
 - ii) Approval to use a CEMS in lieu of operating parameter limits.
 - e) Notification that you elect to comply with the emission averaging requirements for cement kilns with in-line raw mills as specified in §63.1204(d)(2)(iii) and §63.1220(d)(2)(iii).
 - f) If you elect to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, you must document in the operating record that you are in compliance with those requirements as specified in §63.1206(b)(1)(ii).

- g) You may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance as specified in §63.1206(b)(5)(i)(C)(2).
- h) If you elect to conduct particulate matter CEMS correlation testing and wish to have federal particulate matter and opacity standards and associated operating limits waived during the testing, you must notify the Administrator by submitting the correlation test plan for review and approval as specified in §63.1206(b)(8)(iii)(B).
- i) You may request approval to have the particulate matter and opacity standards and associated operating limits and conditions waived for more than 96 hours for a correlation test as specified in §63.1206(b)(8)(v).
- j) Owners and operators of cement kilns may request approval of alternative emission standards for mercury, semivolatile metal, low volatile metal and hydrochloric acid/chlorine gas under certain conditions as specified in §63.1206(b)(10).
- k) You may request to base initial compliance on data in lieu of a comprehensive performance test as specified in §63.1207(c)(2).
- l) You may request more than sixty (60) days to complete a performance test if additional time is needed for reasons beyond your control as specified in §63.1207(d)(3).
- m) You may request to wave current operating parameter limits during pretesting for more than 720 hours as specified in §63.1207(h)(2).
- n) You may request up to a one (1)-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing as specified in §63.1207(i).
- o) You may request more than ninety (90) days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond your control as specified in §63.1207(j)(4).
- p) After failure of a performance test, the permittee may request to burn hazardous waste for more than seven hundred twenty (720) hours and for purposes other than testing or pretesting as specified in §63.1207(l)(3).
- q) You may request to extrapolate mercury feedrate limits as specified in §63.1209(l)(1).
- r) You may request to extrapolate semivolatile and low volatile metal feedrate limits as specified in §63.1209(n)(2)(ii).
- s) You may request to reduce the frequency of excess emissions and CMS performance reports as specified in §63.10(e)(3)(ii).
- t) You may request to waive recordkeeping or reporting requirements as specified in §63.10(f).
- u) You may request to use data compression techniques to record data on a less frequent basis than required by §63.1209 as specified in §63.1211(d).

Recordkeeping:

- 1) You must retain the following in the operating record: [§63.1211(c)]
 - a) General information required to document and maintain compliance with the regulations of Subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plan and other documents submitted to the Administrator as specified in §63.1201(a), §63.10(b) and (c).
 - b) Documentation of compliance as specified in §63.1211(d).
 - c) Documentation and results of the automatic waste feed cutoff operability testing as specified in §63.1206(c)(3)(vii).
 - d) Feedstream analysis plan as specified in §63.1209(c)(2).
 - e) Documentation of compliance with the emission averaging requirements for cement kilns with in-line raw mills as specified in §63.1204(d)(3).

- f) If the permittee elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE when not burning hazardous waste, the permittee must document in the operating record that the permittee is in compliance with those requirements as specified in §63.1206(b)(1)(ii)(B).
 - g) Start-up, Shutdown and Malfunction plan as specified in §63.1206(c)(2).
 - h) Corrective measure for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit as specified in §63.1206(c)(3)(v).
 - i) Operator training and certification program as specified in §63.1206(c)(6).
- 2) If used, documentation that a substitute activated carbon, dioxin/furan formation reaction inhibitor, or dry scrubber sorbent will provide the same level of control as the original material as specified in §63.1209(k)(6)(iii), §63.1209(k)(7)(ii), §63.1209(k)(9)(ii) and §63.1209(o)(4)(iii).

Reporting:

You must submit the following reports to the administrator: [§63.1211(a)]

- 1) Compliance progress reports, if required as a condition of an extension of the compliance date granted under §63.6(i) as specified in §63.10(d)(4).
- 2) Excessive exceedances reports as specified in §63.1206(c)(3)(vi).
- 3) Periodic startup, shutdown and malfunction reports as specified in §63.10(d)(5)(i).
- 4) Immediate startup, shutdown and malfunction reports as specified in §63.10(d)(5)(ii).
- 5) Excessive emissions and continuous monitoring system performance report and summary report as specified in §63.10(e)(3).
- 6) Emergency safety vent opening reports as specified in §63.1206(c)(4)(iv).

Permit Condition PW015

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Documentation of Compliance - §63.1211(c)**

Emission Limitation:

- 1) By the compliance date, you must develop and include in the operating record a Documentation of Compliance. You are not subject to this requirement, however, if you submit a Notification of Compliance under §63.1207(j) prior to the compliance date. Upon inclusion of the Documentation of Compliance in the operating record, hazardous waste burning cement kilns regulated under the interim standards of §63.1204, are no longer subject to compliance with the previously applicable Notification of Compliance. [§63.1211(c)(1)]
- 2) You must comply with the emission standards and operating parameter limits specified in the Documentation of Compliance. [§63.1211(c)(4)]

Recordkeeping:

You must include in the operating record a Documentation of Compliance. [§63.1211(c)(1)]

Reporting:

Documentation of Compliance:

- 1) The Documentation of Compliance must identify the applicable emission standards under this subpart and the limits on the operating parameters under §63.1209 that will ensure compliance with those emission standards. [§63.1211(c)(2)]
- 2) You must include a signed and dated certification in the Documentation of Compliance that: [§63.1211(c)(3)]
 - a) Required CEMs and CMS are installed, calibrated, and continuously operating in compliance with the requirements of this subpart; and [§63.1211(c)(3)(i)]

- b) Based on an engineering evaluation prepared under your direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation, and considering at a minimum the design, operation, and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feedstreams, and available emissions data: [§63.1211(c)(3)(ii)]
- i) You are in compliance with the emission standards of this subpart; and [§63.1211(c)(3)(ii)(A)]
 - ii) The limits on the operating parameters under §63.1209 ensure compliance with the emission standards of this subpart. [§63.1211(c)(3)(ii)(B)]

Permit Condition PW016

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Data Compression - §63.1211(d)**

Emission Limitation/Reporting:

You may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by §63.1209. You must submit the request for review and approval as part of the comprehensive performance test plan. [§63.1211(d)]

Monitoring:

Data Compression:

- 1) You must record a data value at least once each ten minutes. [§63.1211(d)(1)]
- 2) For each CEMS or operating parameter for which you request to use data compression techniques, you must recommend: [§63.1211(d)(2)]
 - a) A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring you to revert to recording each one-minute value. [§63.1211(d)(2)(i)]
 - i) If you exceed a fluctuation limit, you must record each one-minute value for a period of time not less than ten minutes. [§63.1211(d)(2)(i)(A)]
 - ii) If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, you may reinitiate recording data values on a frequency of at least once each ten minutes; and [§63.1211(d)(2)(i)(B)]
 - b) A data compression limit defined as the closest level to an operating parameter limit or emission standard at which reduced data recording is allowed. [§63.1211(d)(2)(ii)]
 - i) Within this level and the operating parameter limit or emission standard, you must record each one-minute average. [§63.1211(d)(2)(ii)(A)]
 - ii) The data compression limit should reflect a level at which you are unlikely to exceed the specific operating parameter limit or emission standard, considering its averaging period, with the addition of a new one-minute average. [§63.1211(d)(2)(ii)(B)]

Recordkeeping:

As required by the data compression techniques.

Permit Condition PW017

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Comprehensive Performance Tests and Subsequent Testing §63.1207**

Emission Limitation:

- 1) The provisions of §63.7 apply, except as noted below. [§63.1207(a)]
- 2) *Comprehensive Performance Test.*
You must conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by this subpart, establish limits for the operating parameters provided by §63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems. [§63.1207(b)(1)]
- 3) *Initial Comprehensive Performance Test.*
Except as provided by §63.1207(c)(2) and (c)(3), you must commence the initial comprehensive performance test no later than six months after the compliance date. [§63.1207(c)(1)]
- 4) *Data in lieu of the Initial Comprehensive Performance Test.* [§63.1207(c)(2)]
 - a) You may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing: [§63.1207(c)(2)(i)]
 - i) Was initiated after 54 months prior to the compliance date, except as provided by §63.1207(c)(2)(iii) or §63.1207(c)(2)(iv); [§63.1207(c)(2)(i)(A)]
 - ii) Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards; [§63.1207(c)(2)(i)(B)]
 - iii) Was in conformance with the requirements of §63.1207(g)(1); and [§63.1207(c)(2)(i)(C)]
 - iv) Was sufficient to establish the applicable operating parameter limits under §63.1209. [§63.1207(c)(2)(i)(D)]
 - b) You must submit data in lieu of the initial comprehensive performance test in lieu of (i.e., if the data are in lieu of all performance testing) or with the notification of performance test required under §63.1207(e). [§63.1207(c)(2)(ii)]
 - c) The data in lieu test age restriction provided in §63.1207(c)(2)(i)(A) does not apply for the duration of the interim standards (i.e., the standards published in the Federal Register on February 13, 2002, 67 FR 6792). See 40 CFR Parts 63, 264, 265, 266, 270, and 271 revised as of July 1, 2002. §63.1207(c)(2)(i)(A) does not apply until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001 (66 FR 57715). [§63.1207(c)(2)(iii)]
 - d) The data in lieu test age restriction provided in §63.1207(c)(2)(i)(A) does not apply to DRE data provided you do not feed hazardous waste at a location in the combustion system other than the normal flame zone. [§63.1207(c)(2)(iv)]
- 5) You must commence the initial comprehensive performance test to demonstrate compliance with the standards under §63.1220 not later than 12 months after the compliance date. [§63.1207(c)(3)]
- 6) *Frequency of Testing* - You must conduct testing periodically as prescribed below. The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. You may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Administrator grants a time extension under paragraph (i) of this section, you must conduct testing as follows: [§63.1207(d)]
 - a) *Comprehensive Performance Testing* - Except as otherwise specified in paragraph §63.1207(d)(4), you must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test used to show compliance with §3.1220. If you submit data in lieu of the

initial performance test, you must commence the subsequent comprehensive performance test within 61 months of commencing the test used to provide the data in lieu of the initial performance test.

[§63.1207(d)(1)]

- b) *Duration of Testing* - You must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline. [§63.1207(d)(3)]
- c) *Waver of Periodic Comprehensive Performance Tests under the Interim Standards* - Except as provided §63.1207(c)(2), you must conduct only an initial comprehensive performance test under the interim standards (§63.1205); all subsequent comprehensive performance testing requirements are waived under the interim standards. The provisions in the introductory text to §63.1207(d) and in §63.1207(d)(1) apply only to tests used to demonstrate compliance with the replacement standards promulgated on or after October 12, 2005. [§63.1207(d)(4)(i)]
- d) If you fail to postmark a Notification of Compliance by the specified date, you must cease hazardous waste burning immediately. [§63.1207(k)(1)]
- e) Prior to submitting a revised Notification of Compliance as provided by §63.1207(k)(3), you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator). [§63.1207(k)(2)]
- f) §63.1209(j) through (p) require the permittee to establish limits on operating parameters based on comprehensive performance testing to ensure the permittee maintains compliance with the emission standards of this subpart. For several parameters, the permittee must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standards of §63.1209(j) and the dioxin/furan standard of §63.1209(k). If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies. [§63.1209(i)]

Notification of Compliance:

- 1) The Notification of Compliance status requirements of §63.9(h) apply, except that: [§63.1210(d)(1)]
 - a) The notification is a Notification of Compliance, rather than compliance status: [§63.1210(d)(1)(i)]
 - b) The notification is required for the initial comprehensive performance test and each subsequent comprehensive and confirmatory performance test; and [§63.1210(d)(1)(ii)]
 - c) The permittee must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by §63.9(h)(2)(ii). [§63.1210(d)(1)(iii)]
- 2) Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable. [§63.1210(d)(2)]
- 3) The Notification of Compliance requirements of §63.1207(j) also apply. [§63.1210(d)(3)]

Test Plan:

Content of Performance Test Plan - The provisions of §63.7(c)(2)(i)-(iii) and (v) regarding the content of the test plan apply. In addition, you must include the following information in the test plan: [§63.1207(f)]

Contents of Comprehensive Performance Test Plan:

- 1) An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes: [§63.1207(f)(1)(i)]
 - a) Heating value, levels of ash (for hazardous waste incinerators only), levels of semivolatile metals, low volatile metals, mercury, and total chlorine (organic and inorganic); and [§63.1207(f)(1)(i)(A)]
 - b) Viscosity or description of the physical form of the feedstream; [§63.1207(f)(1)(i)(B)]
- 2) For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60: [§63.1207(f)(1)(ii)]

- a) Except as provided by §63.1207(f)(1)(ii)(D), an identification of such organic hazardous air pollutants that are present in each hazardous waste feedstream. You need not analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. You must identify any constituents you exclude from analysis and explain the basis for excluding them. You must conduct the feedstream analysis according to §63.1208(b)(8); [§63.1207(f)(1)(ii)(A)]
 - i) *Feedstream analytical methods* - You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]
- b) An approximate quantification of such identified organic hazardous air pollutants in the hazardous waste feedstreams, within the precision produced by analytical procedures of §63.1208(b)(8); and [§63.1207(f)(1)(ii)(B)]
- c) A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending, and blending ratios. [§63.1207(f)(1)(ii)(C)]
- d) The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the analysis required under §63.1207(f)(1)(ii)(A) if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standards of this subpart continue to be representative of the most difficult to destroy organic compounds in your hazardous waste feedstreams; [§63.1207(f)(1)(ii)(D)]
- 3) A detailed engineering description of the hazardous waste combustor, including: [§63.1207(f)(1)(iii)]
 - a) Manufacturer's name and model number of the hazardous waste combustor; [§63.1207(f)(1)(iii)(A)]
 - b) Type of hazardous waste combustor; [§63.1207(f)(1)(iii)(B)]
 - c) Maximum design capacity in appropriate units; [§63.1207(f)(1)(iii)(C)]
 - d) Description of the feed system for each feedstream; [§63.1207(f)(1)(iii)(D)]
 - e) Capacity of each feed system; [§63.1207(f)(1)(iii)(E)]
 - f) Description of automatic hazardous waste feed cutoff system(s); [§63.1207(f)(1)(iii)(F)]
 - g) Description of the design, operation, and maintenance practices for any air pollution control system; and [§63.1207(f)(1)(iii)(G)]
 - h) Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems; [§63.1207(f)(1)(iii)(H)]
- 4) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis; [§63.1207(f)(1)(iv)]
- 5) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors; [§63.1207(f)(1)(v)]
- 6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards; [§63.1207(f)(1)(vi)]
- 7) A description of, and planned operating conditions for, any emission control equipment that will be used; [§63.1207(f)(1)(vii)]
- 8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; [§63.1207(f)(1)(viii)]
- 9) A determination of the hazardous waste residence time as required by §63.1206(b)(11); [§63.1207(f)(1)(ix)]
- 10) If you are requesting to extrapolate metal feedrate limits from comprehensive performance test levels under §§63.1209(l)(1)(v) or 63.1209(n)(2)(vii): [§63.1207(f)(1)(x)]
 - a) A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards; [§63.1207(f)(1)(x)(A)]
 - b) Documentation of the historical range of normal (i.e ., other than during compliance testing) metals feedrates for each feedstream; [§63.1207(f)(1)(x)(B)]

- c) Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards; [§63.1207(f)(1)(x)(C)]
- 11) If you do not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under §63.1209(c)(5), you must include documentation of the expected levels of regulated constituents in those feedstreams; [§63.1207(f)(1)(xi)]
- 12) Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by §63.1207(g)(1)(iii) of this section; [§63.1207(f)(1)(xii)]
- 13) For cement kilns with in-line raw mills, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision; [§63.1207(f)(1)(xiii)]
- 14) For preheater or preheater/precalciner cement kilns with dual stacks, if you elect to use the emissions averaging provision of this subpart, you must notify the Administrator of your intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required by the emission averaging provision; [§63.1207(f)(1)(xiv)]
- 15) If you request to use Method 23 for dioxin/furan you must provide the information required under §63.1208(b)(1)(i)(B); [§63.1207(f)(1)(xv)]
- 16) If you are not required to conduct performance testing to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under §63.1207(m), you must include with the comprehensive performance test plan documentation of compliance with the provisions of that section. [§63.1207(f)(1)(xvi)]
- 17) If you propose to use a surrogate for measuring or monitoring gas flowrate, you must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by §63.1207(m)(7), and §63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i), and (o)(2)(i). [§63.1207(f)(1)(xvii)]
- 18) You must submit an application to request alternative monitoring under §63.1209(g)(1) not later than with the comprehensive performance test plan, as required by §63.1209(g)(1)(iii)(A). [§63.1207(f)(1)(xviii)]
- 19) You must document the temperature location measurement in the comprehensive performance test plan, as required by §§63.1209(j)(1)(i) and 63.1209(k)(2)(i). [§63.1207(f)(1)(xix)]
- 20) If your source is equipped with activated carbon injection, you must document in the comprehensive performance test plan: [§63.1207(f)(1)(xx)]
- a) The manufacturer specifications for minimum carrier fluid flowrate or pressure drop, as required by §63.1209(k)(6)(ii); and [§63.1207(f)(1)(xx)(A)]
- b) Key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, if you elect not to specify and use the brand and type of carbon used during the comprehensive performance test, as required by §63.1209(k)(6)(iii). [§63.1207(f)(1)(xx)(B)]
- 21) If your source is equipped with a carbon bed system, and you elect not to specify and use the brand and type of carbon used during the comprehensive performance test, you must include in the comprehensive performance test plan key parameters that affect carbon adsorption, and the operating limits you establish for those parameters based on the carbon used during the performance test, as required by §63.1209(k)(7)(ii). [§63.1207(f)(1)(xxi)]
- 22) If you feed a dioxin/furan inhibitor into the combustion system, you must document in the comprehensive performance test plan key parameters that affect the effectiveness of the inhibitor, and the operating limits you establish for those parameters based on the inhibitor fed during the performance test, if you elect not to specify and use the brand and type of inhibitor used during the comprehensive performance test, as required by §63.1209(k)(9)(ii). [§63.1207(f)(1)(xxii)]
- 23) For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, a description of how you will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels. [§63.1207(f)(1)(xxvi)]

- 24) Such other information as the Administrator reasonably finds necessary to determine whether to approve the performance test plan. [§63.1207(f)(1)(xxvii)]

Monitoring:

- 1) *Changes in Design, Operation, or Maintenance* - You must conduct a comprehensive performance test under the requirements of §§63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d). [§63.1206(b)(5)(i)(B)]
- 2) You must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. You must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §§63.1207(j) and 63.1210(d). [§63.1206(b)(11)]
- 3) You must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart. [§63.1206(b)(12)(i)]
- 4) You must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that you must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. [§63.1206(b)(12)(ii)]
- 5) *Operating Conditions During Testing* - You must comply with the provisions of §63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of §63.7(e)(1) to conduct performance testing under representative operating conditions. [§63.1207(g)]
 - a) *Comprehensive Performance Testing*
 - i) *Operation During Testing* - For the following parameters, you must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions): [§63.1207(g)(1)(i)]
 - (1) Chlorine feedrate. You must feed normal (or higher) levels of chlorine during the dioxin/furan performance test; [§63.1207(g)(1)(i)(A)]
 - (2) Cleaning cycle of the particulate matter control device. You must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle: The particulate matter, semivolatile metal, and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used. [§63.1207(g)(1)(i)(C)]
 - ii) *Modes of Operation* - Given that you must establish limits for the applicable operating parameters specified in §63.1209 based on operations during the comprehensive performance test, you may conduct testing under two or more operating modes to provide operating flexibility. [§63.1207(g)(1)(ii)]
 - iii) *Steady State Conditions* [§63.1207(g)(1)(iii)]

Prior to obtaining performance test data, you must operate under performance test conditions until you reach steady-state operations with respect to emissions of pollutants you must measure during the performance test and operating parameters under §63.1209 for which you must establish limits. During system conditioning, you must ensure that each operating parameter for which you must establish a limit is held at the level planned for the performance test. You must include documentation in the performance test plan under §63.1207(f) justifying the duration of system conditioning. [§63.1207(g)(1)(iii)(A)]
 - 6) *Operating Conditions During Subsequent Testing* [§63.1207(h)]
 - a) Current operating parameter limits established under §63.1209 are waived during subsequent comprehensive performance testing. [§63.1207(h)(1)]
 - b) Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator) under an approved test plan or if the source records the results of the pretesting. Pretesting means: [§63.1207(h)(2)]

- i) Operations when stack emissions testing for dioxin/furan, mercury, semivolatile metals, low volatile metals, particulate matter, or hydrogen chloride/chlorine gas is being performed; and [§63.1207(h)(2)(i)]
- ii) Operations to reach steady-state operating conditions prior to stack emissions testing under paragraph §63.1207(g)(1)(iii). [§63.1207(h)(2)(ii)]

Failure of Performance Test:

For comprehensive performance tests conducted after September 30, 2003 (compliance date):

- 1) If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have exceeded any emission standard during a comprehensive performance test for a mode of operation, you must cease hazardous waste burning immediately under that mode of operation. You must make this determination within 90 days following completion of the performance test. [§63.1207(l)(1)(i)]
- 2) If you have failed to demonstrate compliance with the emission standards for any mode of operation: [§63.1207(l)(1)(ii)]
 - a) Prior to submitting a revised Notification of Compliance as provided by §63.1207(l)(1)(ii)(C), you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by §63.1207(l)(3); [§63.1207(l)(1)(ii)(A)]
 - b) You must conduct a comprehensive performance test under revised operating conditions following the requirements for performance testing of this section; and [§63.1207(l)(1)(ii)(B)]
 - c) You must submit to the Administrator a Notification of Compliance subsequent to the new comprehensive performance test. [§63.1207(l)(1)(ii)(C)]
- 3) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance. [§63.1207(l)(3)]

Recordkeeping:

The permittee shall maintain a copy of the following in the operating record: [§63.1211(c)]

- 1) Intent to conduct a comprehensive performance test;
- 2) CMS performance evaluation;
- 3) Site-specific test plan;
- 4) CMS performance evaluation plan;
- 5) Public notice for the approved test and CMS performance evaluation plans;
- 6) Comprehensive performance test plan results;
- 7) CMS performance evaluation;
- 8) Extension requests for performance testing;
- 9) Approval/denial for the extension requests for performance testing;
- 10) Notification of Compliance;
- 11) Extension request for the Notification of Compliance; and
- 12) Approval/denial for the extension request for Notification of compliance.

Reporting:

- 1) The provisions of §63.7(b) and (c) and §63.8(e) apply, except: [§63.1207(e)(1)]
 - a) *Comprehensive Performance Test* – You must submit to the Administrator a notification of intent to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least one (1) year before the performance test and performance evaluation are scheduled to begin. [§63.1207(e)(1)(i)]

- i) The Administrator will notify the permittee of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within nine (9) months after receipt of the original plan. [§63.1207(e)(1)(i)(A)]
 - ii) The permittee must submit to the Administrator a notification of your intention to conduct the comprehensive performance test at least sixty (60) calendar days before the test is scheduled to begin. [§63.1207(e)(1)(i)(B)]
- 2) You must make your site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. You must issue a public notice to all persons on your facility/public mailing list (developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that you issue your public notice. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum: [§63.1207(e)(2)]
 - a) The name and telephone number of the source's contact person; [§63.1207(e)(2)(i)]
 - b) The name and telephone number of the regulatory agency's contact person; [§63.1207(e)(2)(ii)]
 - c) The location where the test plans and any necessary supporting documentation can be reviewed and copied; [§63.1207(e)(2)(iii)]
 - d) The time period for which the test plans will be available for public review; and [§63.1207(e)(2)(iv)]
 - e) An expected time period for commencement and completion of the performance test and CMS performance evaluation test. [§63.1207(e)(2)(v)]
- 3) *Petitions for Time Extension if Administrator Fails to Approve or Deny Test Plans.* You may petition the Administrator under §63.7(h) to obtain a “waiver” of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The “waiver” would be implemented as an extension of time to conduct the performance test at a later date. [§63.1207(e)(3)]
 - a) *Qualifications for the Waiver.* [§63.1207(e)(3)(i)] —
 - i) You may not petition the Administrator for a waiver under this section if the Administrator has issued a notification of intent to deny your test plan(s) under §63.7(c)(3)(i)(B); [§63.1207(e)(3)(i)(A)]
 - ii) You must submit a site-specific emissions testing plan and a continuous monitoring system performance evaluation test plan at least one year before a comprehensive performance test is scheduled to begin as required by §63.1207(c)(1), or at least 60 days before a confirmatory performance test is scheduled to begin as required by §63.1207(d). The test plans must include all required documentation, including the substantive content requirements of §63.1207(f) and §63.8(e); and [§63.1207(e)(3)(i)(B)]
 - iii) You must make a good faith effort to accommodate the Administrator's comments on the test plans. [§63.1207(e)(3)(i)(C)]
 - b) *Procedures for Obtaining a Waiver and Duration of the Waiver:* [§63.1207(e)(3)(ii)]—
 - i) You must submit to the Administrator a waiver petition or request to renew the petition under §63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test; [§63.1207(e)(3)(ii)(A)]
 - ii) The Administrator will approve or deny the petition within 30 days of receipt and notify you promptly of the decision; [§63.1207(e)(3)(ii)(B)]
 - iii) The Administrator will not approve an individual waiver petition for a duration exceeding 6 months; [§63.1207(e)(3)(ii)(C)]
 - iv) The Administrator will include a sunset provision in the waiver ending the waiver within 6 months; [§63.1207(e)(3)(ii)(D)]
 - v) You may submit a revised petition to renew the waiver under §63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently approved waiver petition; [§63.1207(e)(3)(ii)(E)]
 - vi) The Administrator may approve a revised petition for a total waiver period up to 12 months. [§63.1207(e)(3)(ii)(F)]
 - c) *Content of the waiver.* [§63.1207(e)(3)(iii)]—

- i) You must provide documentation to enable the Administrator to determine that the source is meeting the relevant standard(s) on a continuous basis as required by §63.7(h)(2). For extension requests for the initial comprehensive performance test, you must submit your Documentation of Compliance to assist the Administrator in making this determination. [§63.1207(e)(3)(iii)(A)]
- ii) You must include in the petition information justifying your request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by §63.7(h)(3)(iii). [§63.1207(e)(3)(iii)(B)]
- d) *Public Notice* - At the same time that you submit your petition to the Administrator, you must notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of your petition to waive a performance test. The notification must include all of the following information at a minimum: [§63.1207(e)(3)(iv)]
 - i) The name and telephone number of the source's contact person; [§63.1207(e)(3)(iv)(A)]
 - ii) The name and telephone number of the regulatory agency's contact person; [§63.1207(e)(3)(iv)(B)]
 - iii) The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and [§63.1207(e)(3)(iv)(C)]
 - iv) The length of time requested for the waiver. [§63.1207(e)(3)(iv)(D)]
- 4) *Time Extension for Subsequent Performance Tests* - After the initial comprehensive performance test, you may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences. [§63.1207(i)]
 - a) You must submit in writing to the Administrator any request under this paragraph for a time extension for conducting a performance test. [§63.1207(i)(1)]
 - b) You must include in the request for an extension for conducting a performance test the following: [§63.1207(i)(2)]
 - i) A description of the reasons for requesting the time extension; [§63.1207(i)(2)(i)]
 - ii) The date by which you will commence performance testing. [§63.1207(i)(2)(ii)]
 - c) The Administrator will notify you in writing of approval or intention to deny approval of your request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate your request. The 30-day approval or denial period will begin after you have been notified in writing that your application is complete. The Administrator will notify you in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that you submit. [§63.1207(i)(3)]
 - d) When notifying you that your application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for you to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application. [§63.1207(i)(4)]
 - e) Before denying any request for an extension for performance testing, the Administrator will notify you in writing of the Administrator's intention to issue the denial, together with: [§63.1207(i)(5)]
 - i) Notice of the information and findings on which the intended denial is based; and [§63.1207(i)(5)(i)]
 - ii) Notice of opportunity for you to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Administrator before further action on the request. [§63.1207(i)(5)(ii)]
 - f) The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made. [§63.1207(i)(6)]

- 5) *Notification of compliance*
- a) *Comprehensive performance test.* [§63.1207(j)(1)]
 - i) Except as provided by paragraphs §63.1207(j)(4) and (j)(5), within 90 days of completion of a comprehensive performance test, you must postmark a Notification of Compliance documenting compliance with the emission standards and continuous monitoring system requirements, and identifying operating parameter limits under §63.1209. [§63.1207(j)(1)(i)]
 - ii) Upon postmark of the Notification of Compliance, you must comply with all operating requirements specified in the Notification of Compliance in lieu of the limits specified in the Documentation of Compliance required under §63.1211(c). [§63.1207(j)(1)(ii)]
 - b) See §§63.7(g), 63.9(h), and 63.1210(d) for additional requirements pertaining to the Notification of Compliance (e.g., you must include results of performance tests in the Notification of Compliance). [§63.1207(j)(3)]
 - c) *Time Extension* - You may submit a written request to the Administrator for a time extension documenting that, for reasons beyond your control, you may not be able to meet the 90-day deadline for submitting the Notification of Compliance after completion of testing. The Administrator will determine whether a time extension is warranted. [§63.1207(j)(1)(4)]
 - d) *Early Compliance* - If you conduct the initial comprehensive performance test prior to the compliance date, you must postmark the Notification of Compliance within 90 days of completion of the performance test or by the compliance date, whichever is later. [§63.1207(j)(5)]
- 6) *Failure to Submit Timely Notification of Compliance* – The permittee must submit to the Administrator a Notification of compliance subsequent to a new comprehensive performance test before resuming hazardous waste burning. [§63.1207(k)(3)]

Permit Condition PW018

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Confirmatory Performance Tests §63.1207**

Emission Limitation:

- 1) The provisions of §63.7 apply, except as noted below. [§63.1207(a)]
- 2) *Confirmatory Performance Test.* You must conduct confirmatory performance tests to: [§63.1207(b)(2)]
 - a) Demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and [§63.1207(b)(2)(i)]
 - b) Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under §63.1209(k). [§63.1207(b)(2)(ii)]
- 3) *Frequency of Testing* - Except as otherwise specified in paragraph §63.1207(d)(4) of this section, you must conduct testing periodically as prescribed in §63.1207(d)(1) through (d)(3). The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. You may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Administrator grants a time extension under paragraph (i) of this section, you must conduct testing as follows: [§63.1207(d)]
 - a) *Confirmatory Performance Testing* - Except as otherwise specified in §63.1207(d)(4), you must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test used to show compliance with §§63.1217, 63.1219, 63.1220, or 63.1221. If you submit data in lieu of the initial performance test, you must commence the initial confirmatory performance test within 31 months of the date six months after the compliance date. To

ensure that the confirmatory test is conducted approximately midway between comprehensive performance tests, the Administrator will not approve a test plan that schedules testing within 18 months of commencing the previous comprehensive performance test. [§63.1207(d)(2)]

- b) *Duration of Testing* - You must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on your documentation in writing of factors beyond your control that prevent you from meeting the 60-day deadline. [§63.1207(d)(3)]
- c) *Waver of Confirmatory Performance Tests under the Interim Standards* - You are not required to conduct a confirmatory test under the interim standards (§§63.1203 through 63.1205). The confirmatory testing requirements in the introductory text to §63.1207(d) and in §63.1207(d)(2) apply only after you have demonstrated compliance with the replacement standards promulgated on or after October 12, 2005. [§63.1207(d)(4)(ii)]
- d) If you fail to postmark a Notification of Compliance by the specified date, you must cease hazardous waste burning immediately. [§63.1207(k)(1)]
- e) Prior to submitting a revised Notification of Compliance as provided by §63.1207(k)(3), you may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator). [§63.1207(k)(2)]

Notification of Compliance:

- 1) The Notification of Compliance status requirements of §63.9(h) apply, except that: [§63.1210(d)(1)]
 - a) The notification is a Notification of Compliance, rather than compliance status: [§63.1210(d)(1)(i)]
 - b) The notification is required for the initial comprehensive performance test and each subsequent comprehensive and confirmatory performance test; and [§63.1210(d)(1)(ii)]
 - c) The permittee must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by §63.9(h)(2)(ii). [§63.1210(d)(1)(iii)]
- 2) Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable. [§63.1210(d)(2)]
- 3) The Notification of Compliance requirements of §63.1207(j) also apply. [§63.1210(d)(3)]

Test Plan:

Content of Performance Test Plan - The provisions of §63.7(c)(2)(i)-(iii) and (v) regarding the content of the test plan apply. In addition, you must include the following information in the test plan: [§63.1207(f)]

Contents of Confirmatory Test Plan:

- 1) A description of your normal hydrocarbon or carbon monoxide operating levels, as specified in §63.1207(g)(2)(i), and an explanation of how these normal levels were determined; [§63.1207(f)(2)(i)]
- 2) A description of your normal applicable operating parameter levels, as specified in paragraph (g)(2)(ii) of this section, and an explanation of how these normal levels were determined; [§63.1207(f)(2)(ii)]
- 3) A description of your normal chlorine operating levels, as specified in §63.1207(g)(2)(iii), and an explanation of how these normal levels were determined; [§63.1207(f)(2)(iii)]
- 4) If you use carbon injection or a carbon bed, a description of your normal cleaning cycle of the particulate matter control device, as specified in §63.1207(g)(2)(iv) of this section, and an explanation of how these normal levels were determined; [§63.1207(f)(2)(iv)]
- 5) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis; [§63.1207(f)(2)(v)]
- 6) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors; [§63.1207(f)(2)(vi)]

- 7) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the dioxin/furan emission standard; [§63.1207(f)(2)(vii)]
- 8) A description of, and planned operating conditions for, any emission control equipment that will be used; [§63.1207(f)(2)(viii)]
- 9) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; and [§63.1207(f)(2)(ix)]
- 10) Such other information as the Administrator reasonably finds necessary to determine whether to approve the confirmatory test plan. [§63.1207(f)(2)(x)]

Monitoring:

- 1) You must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. You must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §§63.1207(j) and 63.1210(d). [§63.1206(b)(11)]
- 2) You must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart. [§63.1206(b)(12)(i)]
- 3) You must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that you must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. [§63.1206(b)(12)(ii)]
- 4) *Operating Conditions During Testing* - You must comply with the provisions of §63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirement of §63.7(e)(1) to conduct performance testing under representative operating conditions. [§63.1207(g)]
 - a) *Confirmatory Performance Testing* - Confirmatory performance testing. You must conduct confirmatory performance testing for dioxin/furan under normal operating conditions for the following parameters: [§63.1207(g)(2)(i)]
 - i) Carbon monoxide (or hydrocarbon) CEMS emissions levels must be within the range of the average value to the maximum value allowed, except as provided by §63.1207(g)(2)(iv). The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste; [§63.1207(g)(2)(i)]
 - ii) Each operating limit (specified in §63.1209) established to maintain compliance with the dioxin/furan emission standard must be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed, except as provided by §63.1207(g)(2)(iv). The average value is defined as the sum of the rolling average values recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste; [§63.1207(g)(2)(ii)]
 - iii) You must feed chlorine at normal feedrates or greater; and [§63.1207(g)(2)(iii)]
 - iv) If the combustor is equipped with carbon injection or carbon bed, normal cleaning cycle of the particulate matter control device. [§63.1207(g)(2)(iv)]
 - v) The Administrator may approve an alternative range to that required by §63.1207(g)(2)(i) and (ii) if you document in the confirmatory performance test plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Administrator may consider test conditions outside of the range specified in the test plan based on a finding that you could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range

were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Administrator will consider the proximity of the emission test results to the standard. [§63.1207(g)(2)(v)]

Failure of Performance Test:

- 1) Confirmatory performance test. If you determine (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that you have failed the dioxin/furan emission standard during a confirmatory performance test, you must cease burning hazardous waste immediately. You must make this determination within 90 days following completion of the performance test. To burn hazardous waste in the future: [§63.1207(l)(2)]
 - a) You must submit to the Administrator for review and approval a test plan to conduct a comprehensive performance test to identify revised limits on the applicable dioxin/furan operating parameters specified in §63.1209(k); [§63.1207(l)(2)(i)]
 - b) You must submit to the Administrator a Notification of Compliance with the dioxin/furan emission standard under the provisions of paragraphs (j) and (k) of this section and this paragraph (l). You must include in the Notification of Compliance the revised limits on the applicable dioxin/furan operating parameters specified in §63.1209(k); and [§63.1207(l)(2)(ii)]
 - c) Until the Notification of Compliance is submitted, you must not burn hazardous waste except for purposes of pretesting or confirmatory performance testing, and for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by paragraph (l)(3) of this section. [§63.1207(l)(2)(iii)]
- 2) You may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. You must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance. [§63.1207(l)(3)]

Recordkeeping:

The permittee shall maintain a copy of the following in the operating record: [§63.1211(c)]

- 1) Intent to conduct a confirmatory performance test;
- 2) CMS performance evaluation;
- 3) Site-specific test plan;
- 4) CMS performance evaluation plan;
- 5) Public notice for the approved test and CMS performance evaluation plans;
- 6) Confirmatory performance test plan results;
- 7) CMS performance evaluation;
- 8) Extension requests for performance testing;
- 9) Approval/denial for the extension requests for performance testing;
- 10) Notification of Compliance;
- 11) Extension request for the Notification of Compliance; and
- 12) Approval/denial for the extension request for Notification of compliance.

Reporting:

- 1) The provisions of §63.7(b) and (c) and §63.8(e) apply, except: [§63.1207(e)(1)]
 - a) *Confirmatory Performance Test* - You must submit to the Administrator a notification of your intention to conduct a confirmatory performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation test plan at least 60 calendar days before the performance test is scheduled to begin. The Administrator will notify you of approval or intent to deny approval of the site-specific test plan and CMS performance evaluation test plan within 30 calendar days after receipt of the original test plans. [§63.1207(e)(1)(ii)]

- 2) You must make your site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test. You must issue a public notice to all persons on your facility/public mailing list (developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) announcing the availability of the test plans and the location where the test plans are available for review. The test plans must be accessible to the public for 60 calendar days, beginning on the date that you issue your public notice. The location must be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. The notification must include the following information at a minimum: [§63.1207(e)(2)]
 - a) The name and telephone number of the source's contact person; [§63.1207(e)(2)(i)]
 - b) The name and telephone number of the regulatory agency's contact person; [§63.1207(e)(2)(ii)]
 - c) The location where the test plans and any necessary supporting documentation can be reviewed and copied; [§63.1207(e)(2)(iii)]
 - d) The time period for which the test plans will be available for public review; and [§63.1207(e)(2)(iv)]
 - e) An expected time period for commencement and completion of the performance test and CMS performance evaluation test. [§63.1207(e)(2)(v)]
- 3) *Petitions for Time Extension if Administrator Fails to Approve or Deny Test Plans.* You may petition the Administrator under §63.7(h) to obtain a “waiver” of any performance test—initial or periodic performance test; comprehensive or confirmatory test. The “waiver” would be implemented as an extension of time to conduct the performance test at a later date. [§63.1207(e)(3)]
 - a) *Qualifications for the Waiver.* [§63.1207(e)(3)(i)] —
 - i) You may not petition the Administrator for a waiver under this section if the Administrator has issued a notification of intent to deny your test plan(s) under §63.7(c)(3)(i)(B); [§63.1207(e)(3)(i)(A)]
 - ii) You must submit a site-specific emissions testing plan and a continuous monitoring system performance evaluation test plan at least one year before a comprehensive performance test is scheduled to begin as required by §63.1207(c)(1), or at least 60 days before a confirmatory performance test is scheduled to begin as required by §63.1207(d). The test plans must include all required documentation, including the substantive content requirements of §63.1207(f) and §63.8(e); and [§63.1207(e)(3)(i)(B)]
 - iii) You must make a good faith effort to accommodate the Administrator's comments on the test plans. [§63.1207(e)(3)(i)(C)]
 - b) *Procedures for Obtaining a Waiver and Duration of the Waiver:* [§63.1207(e)(3)(ii)]—
 - i) You must submit to the Administrator a waiver petition or request to renew the petition under §63.7(h) separately for each source at least 60 days prior to the scheduled date of the performance test; [§63.1207(e)(3)(ii)(A)]
 - ii) The Administrator will approve or deny the petition within 30 days of receipt and notify you promptly of the decision; [§63.1207(e)(3)(ii)(B)]
 - iii) The Administrator will not approve an individual waiver petition for a duration exceeding 6 months; [§63.1207(e)(3)(ii)(C)]
 - iv) The Administrator will include a sunset provision in the waiver ending the waiver within 6 months; [§63.1207(e)(3)(ii)(D)]
 - v) You may submit a revised petition to renew the waiver under §63.7(h)(3)(iii) at least 60 days prior to the end date of the most recently approved waiver petition; [§63.1207(e)(3)(ii)(E)]
 - vi) The Administrator may approve a revised petition for a total waiver period up to 12 months. [§63.1207(e)(3)(ii)(F)]
 - c) *Content of the waiver.* [§63.1207(e)(3)(iii)]—
 - i) You must provide documentation to enable the Administrator to determine that the source is meeting the relevant standard(s) on a continuous basis as required by §63.7(h)(2). For extension requests for the initial comprehensive performance test, you must submit your Documentation of Compliance to assist the Administrator in making this determination. [§63.1207(e)(3)(iii)(A)]

- ii) You must include in the petition information justifying your request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test, as required by §63.7(h)(3)(iii). [§63.1207(e)(3)(iii)(B)]
- d) *Public Notice* - At the same time that you submit your petition to the Administrator, you must notify the public (e.g., distribute a notice to the facility/public mailing list developed pursuant to 40 CFR 70.7(h), 71.11(d)(3)(i)(E) and 124.10(c)(1)(ix)) of your petition to waive a performance test. The notification must include all of the following information at a minimum: [§63.1207(e)(3)(iv)]
 - i) The name and telephone number of the source's contact person; [§63.1207(e)(3)(iv)(A)]
 - ii) The name and telephone number of the regulatory agency's contact person; [§63.1207(e)(3)(iv)(B)]
 - iii) The date the source submitted its site-specific performance test plan and CMS performance evaluation test plans; and [§63.1207(e)(3)(iv)(C)]
 - iv) The length of time requested for the waiver. [§63.1207(e)(3)(iv)(D)]
- 4) *Time Extension for Subsequent Performance Tests* - After the initial comprehensive performance test, you may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences. [§63.1207(i)]
 - a) You must submit in writing to the Administrator any request under this paragraph for a time extension for conducting a performance test. [§63.1207(i)(1)]
 - b) You must include in the request for an extension for conducting a performance test the following: [§63.1207(i)(2)]
 - i) A description of the reasons for requesting the time extension; [§63.1207(i)(2)(i)]
 - ii) The date by which you will commence performance testing. [§63.1207(i)(2)(ii)]
 - c) The Administrator will notify you in writing of approval or intention to deny approval of your request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate your request. The 30-day approval or denial period will begin after you have been notified in writing that your application is complete. The Administrator will notify you in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that you submit. [§63.1207(i)(3)]
 - d) When notifying you that your application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for you to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application. [§63.1207(i)(4)]
 - e) Before denying any request for an extension for performance testing, the Administrator will notify you in writing of the Administrator's intention to issue the denial, together with: [§63.1207(i)(5)]
 - i) Notice of the information and findings on which the intended denial is based; and [§63.1207(i)(5)(i)]
 - ii) Notice of opportunity for you to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Administrator before further action on the request. [§63.1207(i)(5)(ii)]
 - f) The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made. [§63.1207(i)(6)]
- 5) *Notification of compliance*
 - a) *Confirmatory performance test* - Except as provided by §63.1207(j)(4), within 90 days of completion of a confirmatory performance test, you must postmark a Notification of Compliance documenting compliance or noncompliance with the applicable dioxin/furan emission standard. [§63.1207(j)(2)]

- b) See §§63.7(g), 63.9(h), and 63.1210(d) for additional requirements pertaining to the Notification of Compliance (e.g., you must include results of performance tests in the Notification of Compliance). [§63.1207(j)(3)]
- c) *Time Extension* - You may submit a written request to the Administrator for a time extension documenting that, for reasons beyond your control, you may not be able to meet the 90-day deadline for submitting the Notification of Compliance after completion of testing. The Administrator will determine whether a time extension is warranted. [§63.1207(j)(1)(4)]

Permit Condition PW019

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Waiver of Performance Test §63.1207**

Emission Limitation:

Waiver of Performance Test - You are not required to conduct performance tests to document compliance with the mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas emission standards under the conditions specified in §63.1207(m)(1) or (m)(2). The waiver provisions of this paragraph apply in addition to the provisions of §63.7(h). [§63.1207(m)]

- 1) *Emission standards based on exhaust gas flow rate.* You are deemed to be in compliance with an emission standard based on the volumetric flow rate of exhaust gas (i.e. µg/dscm or ppmv) if the twelve-hour rolling average maximum theoretical emission concentration (MTEC) determined as specified below does not exceed the emission standard: The waiver provision of this paragraph applies in addition to the provisions of §63.7(h). [§63.1207(m)(1)(i)]
 - a) Determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams; [§63.1207(m)(1)(i)(A)]
 - b) Determine the stack gas flowrate; and [§63.1207(m)(1)(i)(B)]
 - c) Calculate a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted; [§63.1207(m)(1)(i)(C)]
- 2) *Emission standards based on hazardous waste thermal concentration* - You are deemed to be in compliance with an emission standard specified on a hazardous waste thermal concentration basis (i.e., pounds emitted per million Btu of heat input) if the HAP thermal concentration in the waste feed does not exceed the allowable HAP thermal concentration emission rate. [§63.1207(m)(2)(i)]

Monitoring:

- 1) To document compliance with the provision of §63.1207(m)(1), you must: [§63.1207(m)(1)(ii)]
 - a) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams according to §63.1209(c); [§63.1207(m)(1)(ii)(A)]
 - b) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate); [§63.1207(m)(1)(ii)(B)]
 - c) Continuously calculate and record in the operating record the MTEC under the procedures of §63.1207(m)(1)(1)(i); and [§63.1207(m)(1)(ii)(C)]
 - d) Interlock the MTEC calculated in §63.1207(m)(1)(i)(C) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the emission standard. [§63.1207(m)(1)(ii)(D)]
- 2) In lieu of the requirement in §63.1207(m)(1)(ii)(C) and (D), you may: [§63.1207(m)(1)(iii)]
 - a) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in §63.1207(m)(1)(i)(C) of is below the applicable emission standard; and [§63.1207(m)(1)(iii)(A)]

- b) Interlock the minimum gas flowrate limit and maximum feedrate limit of §63.1207(m)(1)(iii)(A) to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limits of §63.1207(m)(1)(iii)(A). [§63.1207(m)(1)(iii)(B)]
- c) Emission standards based on hazardous waste thermal concentration.
- 3) To document compliance with the provision of §63.1207(m)(2), you must: [§63.1207(m)(2)(ii)]
 - a) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all hazardous waste feedstreams in accordance with §63.1209(c); [§63.1207(m)(2)(ii)(A)]
 - b) Determine and record the higher heating value of each hazardous waste feed; [§63.1207(m)(2)(ii)(B)]
 - c) Continuously calculate and record the thermal feed rate of all hazardous waste feedstreams by summing the products of each hazardous waste feed rate multiplied by the higher heating value of that hazardous waste; [§63.1207(m)(2)(ii)(C)]
 - d) Continuously calculate and record the total HAP thermal feed concentration for each constituent by dividing the HAP feedrate determined in §63.1207(m)(2)(ii)(A) by the thermal feed rate determined in §63.1207(m)(2)(ii)(C) for all hazardous waste feedstreams; [§63.1207(m)(2)(ii)(D)]
 - e) Interlock the HAP thermal feed concentration for each constituent with the AWFCO to stop hazardous waste feed when the thermal feed concentration exceeds the applicable thermal emission standard. [§63.1207(m)(2)(ii)(E)]
 - f) When you determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride for purposes of this provision, except as provided by §63.1207(m)(4) of this section, you must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream. [§63.1207(m)(3)]
- 4) Owners and operators of hazardous waste burning cement kilns may assume that mercury is present in raw material at half the detection limit when the raw material feedstream analysis determines that mercury is not detected. [§63.1207(m)(4)]
- 5) CMS Monitoring:
 - a) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under §63.1208. [§63.1209(b)(1)]
 - b) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]
 - i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And, [§63.1209(b)(2)(i)]
 - ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
 - c) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
 - d) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
 - e) *Calculation of Rolling Averages:* [§63.1209(b)(5)]

- i) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
- ii) *Calculation of rolling averages upon intermittent operations* - You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
- iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* [§63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B), you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]

Recordkeeping:

- 1) The permittee shall specify the method used for determining compliance with the mercury, semivolatile metal, low volatile metal or hydrochloric acid/chlorine gas emission standards.
- 2) If the permittee complies with the requirements under §63.1207(m), the permittee shall maintain records of:
 - a) The feedrate of mercury, semivolatile metals, low volatile metals and total chlorine and chloride from all feedstreams;
 - b) The gas flowrate (either directly or by monitoring a surrogate parameter) in the operating record;
 - c) The MTEC in the operating record; and
 - d) When the AWFCO system is not burning hazardous waste due to an MTEC exceedance or a gas flowrate exceedance.
- 3) The permittee shall maintain records of the data recorded by the continuous monitoring system.

Reporting:

- 1) You must state in the site-specific test plan that you submit for review and approval under §63.1207(e) that you intend to comply with the provisions of this paragraph. You must include in the test plan documentation that any surrogate that is proposed for gas flowrate adequately correlates with the gas flowrate. [§63.1207(m)(5)]
- 2) Excessive emissions and continuous monitoring system performance report and summery report as specified in Permit Condition PW011.

Permit Condition PW020

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Alternative Monitoring Requirements Other than Continuous Emissions Monitoring Systems
(CEMS) §63.1209(g)**

Emission Limitation:

- 1) *Requests to use alternatives to operating parameter monitoring requirements.* [§63.1209(g)(1)]
 - a) You may submit an application to the Administrator under this paragraph for approval of alternative operating parameter monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, you must use paragraph §63.1209(a)(5) of this section and §63.8(f). Alternative requests to operating parameter monitoring requirements that include unproven monitoring methods may not be made under this paragraph and must be made under §63.8(f). [§63.1209(g)(1)(i)]
 - b) You may submit an application to waive an operating parameter limit specified in this section based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of this subpart. [§63.1209(g)(1)(ii)]
 - c) You must comply with the procedures for applications submitted under §63.1209(g)(1)(i) and (ii): [§63.1209(g)(1)(iii)]
 - d) *Dual Standards that incorporate the Interim Standards for HAP metals.* [§63.1209(g)(1)(iv)]
 - i) *Semivolatile and Low Volatile Metals* - You may petition the Administrator to waive a feedrate operating parameter limit under §63.1209(n)(2) for either the emission standards expressed in a thermal emissions format or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis. [§63.1209(g)(1)(iv)(A)]
 - ii) *Mercury* - You may petition the Administrator to waive a feedrate operating parameter limit under §63.1209(l)(1) for either the feed concentration standard under §§63.1220(a)(2)(i) and (b)(2)(i) or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis. [§63.1209(g)(1)(iv)(B)]
- 2) *Administrator's discretion to specify additional or alternative requirements.* The Administrator may determine on a case-by-case basis at any time (e.g., during review of the comprehensive performance test plan, during compliance certification review) that you may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of operating parameter limits on the particulate matter control device) or that alternative approaches to establish limits on operating parameters may be necessary to document compliance with the emission standards of this subpart. [§63.1209(g)(2)]

Monitoring:

As required by the alternative monitoring request.

Recordkeeping:

- 1) The permittee shall maintain a copy of the alternative monitoring application.
- 2) The permittee shall maintain a copy of the alternative monitoring approval or denial.
- 3) As required by the alternative monitoring request.

Reporting:

- 1) *Timing of the application* - You must submit the application to the Administrator not later than with the comprehensive performance test plan. [§63.1209(g)(1)(iii)(A)]
- 2) *Content of the application* - You must include in the application: [§63.1209(g)(1)(iii)(B)]
 - a) Data or information justifying your request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach; [§63.1209(g)(1)(iii)(B)(1)]
 - b) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (e.g., type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and [§63.1209(g)(1)(iii)(B)(2)]
 - c) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. [§63.1209(g)(1)(iii)(B)(3)]

- 3) Approval of request to use an alternative monitoring requirement or waive an operating parameter limit. The Administrator will notify you of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that you submit. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify you of the Administrator's intention to disapprove the request together with: [§63.1209(g)(1)(iii)(C)]
 - a) Notice of the information and findings on which the intended disapproval is based; and [§63.1209(g)(1)(iii)(C)(1)]
 - b) Notice of opportunity for you to present additional information to the Administrator before final action on the request. At the time the Administrator notifies you of intention to disapprove the request, the Administrator will specify how much time you will have after being notified of the intended disapproval to submit the additional information. [§63.1209(g)(1)(iii)(C)(2)]
- 4) *Responsibility of owners and operators* - You are responsible for ensuring that you submit any supplementary and additional information supporting your application in a timely manner to enable the Administrator to consider your application during review of the comprehensive performance test plan. Neither your submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves you of the responsibility to comply with the provisions of this subpart. [§63.1209(g)(1)(iii)(D)]

Permit Condition PW021

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Alternative Standards for Existing or New Hazardous Waste Burning Cement kilns using
MACT §63.1206(b)(10)**

Emission Limitation:

- 1) You may petition the Administrator to request alternative standards to the mercury or hydrogen chloride/chlorine gas emission standards of this subpart, to the semivolatile metals emission standards under §§63.1204, 63.1220(a)(3)(ii), or 63.1220(b)(3)(ii), or to the low volatile metals emissions standards under §§63.1204, 63.1220(a)(4)(ii), or 63.1220(b)(4)(ii) if: [§63.1209(10)(i)]
 - a) You cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of mercury, semivolatile metals, low volatile metals, or hydrogen chloride/chlorine gas; or [§63.1209(10)(i)(A)]
 - b) You determine that mercury is not present at detectable levels in your raw material. [§63.1209(10)(i)(B)]
- 2) The alternative standard that you recommend under §63.1209(b)(10)(i)(A) may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation. [§63.1209(10)(ii)]
- 3) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in §63.1209(b)(10)(viii) and (ix). [§63.1209(10)(iii)]
- 4) You must not operate pursuant to your recommended alternative standards in lieu of emission standards specified in this subpart: [§63.1209(10)(vii)]
 - a) Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and [§63.1209(10)(vii)(A)]
 - b) Until you submit a revised Notification of Compliance that incorporates the revised standards. [§63.1209(10)(vii)(B)]
- 5) For purposes of this alternative standard provision, MACT for existing hazardous waste burning cement kilns is defined as: [§63.1209(10)(viii)]

- a) For mercury, a hazardous waste feedrate corresponding to an MTEC of 88 µg/dscm or less; [§63.1209(10)(viii)(A)]
- b) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [§63.1209(10)(viii)(B)]
- c) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 54,000 µg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; and [§63.1209(10)(viii)(C)]
- d) For hydrogen chloride/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 720,000 µg/dscm or less. [§63.1209(10)(viii)(D)]

Monitoring/Recordkeeping:

As specified in the Administrator approval.

Reporting:

Alternative Standard Petition

- 1) The alternative standard petition you submit under §63.1209 (b)(10)(i)(A) must include data or information documenting that raw material contributions to emissions prevent you from complying with the emission standard even though the source is using MACT, as defined in §63.1209(b)(10)(viii) and (ix), for the standard for which you are seeking relief. [§63.1209(10)(iv)(A)]
- 2) Alternative standard petitions that you submit under §63.1209(b)(10)(i)(B) must include data or information documenting that mercury is not present at detectable levels in raw materials. [§63.1209(10)(iv)(B)]
- 3) You must include data or information with semivolatile metal and low volatile metal alternative standard petitions that you submit under §63.1209(b)(10)(i)(A) documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials. [§63.1209(10)(v)]
- 4) You must include data or information with semivolatile metals, low volatile metals, and hydrogen chloride/chlorine gas alternative standard petitions that you submit under §63.1209(b)(10)(i)(A) documenting that emissions of the regulated metals and hydrogen chloride/chlorine gas attributable to the hazardous waste only will not exceed the emission standards in this subpart. [§63.1209(10)(vi)]

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

EU0010 through EU0050 - Screens, Transfer Points (Conveyors) and Crusher		
Emission Unit	Description	2007 EIQ Reference #
EU0010	Screen (A-2101), Installed 1978 (Modified 1987)	RM08A
EU0020	Screen (A-2201), Installed 1978 (Modified 1987)	RM08B
EU0030	Transfer Belt from Screen (A-3801), Installed 1978 (Modified 1987)	RM09
EU0040	Transfer Belt (A-3802), Installed 1986	RM11
EU0050	Secondary Crusher (A-3800), Installed 1986	RM10

<p>Permit Condition EU0010-001 through EU0050-001</p> <p>10 CSR 10-6.070</p> <p>New Source Performance Regulations</p> <p>40 CFR Part 60 Subpart OOO</p> <p>Standards of Performance for Nonmetallic Minerals Processing Plants</p>
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Emission Limitation:

- 1) Screening and Conveying Operations:
 On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of §672. [40 CFR 60.672(b)]
- 2) Crushers:
 On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity. [40 CFR 60.672(c)]

Test Methods and Procedures:

- 1) In determining compliance with the particulate matter standards in §60.672(b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions: [40 CFR 60.673(c)(1)]
 - a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). [40 CFR 60.675(c)(1)(i)]
 - b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed. [40 CFR 60.675(c)(1)(ii)]

- c) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
[40 CFR 60.675(c)(1)(iii)]
- 2) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
[40 CFR 60.675(c)(3)]
 - a) There are no individual readings greater than 10 percent opacity; and [40 CFR 60.675(c)(3)(i)]
 - b) There are no more than 3 readings of 10 percent for the 1-hour period. [40 CFR 60.675(c)(1)(ii)]
- 3) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [40 CFR 60.675(c)(4)]
 - a) There are no individual readings greater than 15 percent opacity; and [40 CFR 60.675(c)(4)(i)]
 - b) There are no more than 3 readings of 15 percent for the 1-hour period. [40 CFR 60.675(c)(4)(ii)]
- 4) The owner or operator may use the following as alternatives to the reference methods and procedures specified in §675(c), if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used: [40 CFR 60.675(e)(1)]
 - a) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. [40 CFR 60.675(e)(1)(i)]
 - b) Separate the emissions so that the opacity of emissions from each affected facility can be read.
[40 CFR 60.675(e)(1)(ii)]

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
 - d) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.

- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any other Method 9 test performed in accordance with this permit condition. (See Attachment A-2)

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0060 through EU0140 - Transfer Points (Conveyors) and Additive Crusher		
Emission Unit	Description	2007 EIQ Reference #
EU0060	Hopper (W-4600), Installed 1978	RM17
EU0070	Hammermill Crusher (W-4800), Installed 1978	RM18
EU0080	Transfer Belt from Crusher (W-4900), Installed 1978	RM19
EU0090	Transfer Belt from Crusher (W-5000), Installed 1978	RM19
EU0100	Barge Unloading to Trucks	RM21
EU0110	Hopper (W-5301) Transfer Point, Installed 1996	RM25
EU0120	Transfer Belt (W-5700), Installed 1978	RM26
EU0130	Transfer Belt (W-3800), Installed 1978	RM27
EU0140	Hopper/Rotary Selector, Installed 1978	RM28

<p>Permit Condition EU0060-001 through EU0140-001</p> <p>10 CSR 10-6.070</p> <p>New Source Performance Regulations</p> <p>40 CFR Part 60 Subpart F</p> <p>Standards of Performance for Portland Cement Plants</p>
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Emission Limitation:

- 1) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater. [§60.62(c)]
- 2) These emission units are not subject to Permit Condition PW001.

Test Methods and Procedures:

Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.64(b)(4)]

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
 - d) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- 3) The permittee shall conduct an annual opacity measurement on the emission units by USEPA Test Method 9 with a certified Method 9 observer using the test methods and procedures described above

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any other Method 9 test performed in accordance with this permit condition. (See Attachment A-2)

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0150 through EU0220 - Raw Material Storage Silos		
Emission Unit	Description	2007 EIQ Reference #
EU0150	Limestone Storage Silo W-4501 Dust Collector W-600	RM29A
EU0160	Diaspore Storage Silo W-4502 Dust Collector W-5800	RM29B
EU0170	Tripoli Storage Silo W-4503 Dust Collector W-5800	RM29C
EU0180	Mill Scale Storage Silo W-4504 Dust Collector W-5800	RM29D
EU0190	Gypsum Storage Silo W-4511 Dust Collector W-5800	RM29E
EU0200	Limestone Storage Silo W-4512 Dust Collector W-5800	RM29F
EU0210	Fly Ash Storage Silo W-4505 Dust Collector W-6000	RM30
EU0220	Fly Ash Storage Silo W-4506 Dust Collector W-6000	RM30

Permit Condition EU0150-001 through EU0220-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

The owner or operator of each new or existing raw material storage bin shall not cause to be discharged any gases from these raw material storage bins which exhibit opacity in excess of ten percent. [§63.1348]

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material storage bins opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the raw material storage bin is operating at the highest load or capacity level reasonably expected to occur. The maximum six (6)-minute average opacity exhibited during the test period shall be used to determine whether the raw material storage bin is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years

of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

[\§63.1355(a)]

- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [\§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [\§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [\§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [\§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [\§63.1354(b)(2)]

EU0230 - Hopper Weigh Belt (R-3202)		
Emission Unit	Description	2007 EIQ Reference #
EU0230	Pfister Feeders (2) Dust Collector R-3270	RM31

<p>Permit Condition EU0230-001</p> <p>10 CSR 10-6.075</p> <p>Maximum Achievable Control Technology Regulations</p> <p>40 CFR Part 63, Subpart LLL</p> <p>National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348</p>

Emission Limitation:

The owner or operator of each new or existing raw material, clinker, or finished product conveying system transfer point and bulk loading or unloading system shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent. [\§63.1348]

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the affected source opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The maximum six (6)-minute average opacity exhibited during the test period shall be used to determine whether the raw material storage bin is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [\§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [\§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [\§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [\§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a).
[§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests.
[§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
[§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9;
[§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.
[§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0240 through EU0340 - Solid Fuel (Coal) Handling and Storage		
Emission Unit	Description	2007 EIQ Reference #
EU0240	Barge Unloading to Trucks – Coal Unloading	CH01
EU0250	Hopper (W-9600) – Coal Unloading	CH04A
EU0260	Feeder Belt (W-9800) – Coal Transfer	CH04B
EU0270	Transfer Belt (W-9700) – Coal Transfer	CH05
EU0280	Screen (W-9701) – Coal Classifier	CH06
EU0290	Transfer Belt (W-7900) - Coal Transfer Dust Collector W-8900	CH07
EU0300	Reversible Transfer Belt (W-8106) - Coal Transfer (Process Enclosed)	CH08A
EU0310	Solid Fuel (Coal) Silo (C-0900) – Raw Coal Storage	CH08B
EU0320	Solid Fuel (Coal) Silo (C-2300) - Raw Coal Storage	CH08C
EU0330	Transfer Belt (C-1000) - Coal Transfer (Process Enclosed)	CH09
EU0340	Transfer Belt (C-2400) - Coal Transfer (Process Enclosed)	CH09

<p>Permit Condition EU0240-001 through EU0340-001</p> <p>10 CSR 10-6.070</p> <p>New Source Performance Regulations</p> <p>40 CFR Part 60 Subpart Y</p> <p>Standards of Performance for Coal Preparation Plants</p>

Emission Limitation:

An owner or operator subject to the provisions of 40 CFR Part 60 Subpart Y shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit twenty percent (20%) opacity or greater. [§60.252(c)]

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
- 3) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment A-2)

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

Permit Condition EU0290-002
10 CSR 10-6.400
Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 63.00 lbs/hr from the Transfer Belt W-7900.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

EU0350 through EU0360 – Coal Mill System		
Emission Unit	Description	2007 EIQ Reference #
EU0350	RSP Mill System (C-2500) – Precalciner Coal Mill Cyclone and Baghouse (C-3000)	CH10A
EU0360	Kiln Mill System (C-1000) – Kiln Coal Mill Cyclone and Baghouse (C-1600)	CH10A1

Permit Condition EU0350-001 through EU0360-001
10 CSR 10-6.070
New Source Performance Regulations
40 CFR Part 60 Subpart Y
Standards of Performance for Coal Preparation Plants

Emission Limitation:

On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any thermal dryer gases which: [§60.252(a)]

- 1) Contain particulate matter in excess of 0.070 gram per dry cubic meter at standard conditions (g/dscm) (0.031 jgrain per dry cubic feet at standard conditions (gr/dscf)). [§60.252(a)(1)]

- 2) Exhibit 20 percent opacity or greater. [§60.252(a)(2)]

Monitoring:

- 1) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows: [§60.253(a)]
 - a) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within ± 1.7 degrees Celsius ($^{\circ}\text{C}$) (± 3 degrees Fahrenheit ($^{\circ}\text{F}$)). [§60.253(a)(1)]
- 2) All monitoring devices under §60.253(a) are to be recalibrated annually in accordance with procedures under §60.13(b). [§60.253(b)]
- 3) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least sixty (60) minutes and 0.85 dscm (thirty (30) dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. [§60.254(b)(1)]
- 4) Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.254(b)(2)]
- 5) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
 - a) The following monitoring schedule must be maintained:
 - i) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - ii) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - iii) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
 - b) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of the continuous temperature recordings.
- 2) The permittee shall maintain records of the calibration of the continuous temperature monitoring device.
- 3) The permittee shall maintain records of all opacity observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 4) The permittee shall maintain records of any equipment malfunctions.
- 5) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment A-2)

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of the opacity limit or particulate matter limit established by the permit condition.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

**EU0370 through EU0380
- Process Heaters C-1400 and C-2800**

Emission Unit	Description	2007 EIQ Reference #
EU0370	Kiln Process Air Heater (C-1400), 3 MMBtu/hr, Distillate Fuel-fired	CH10B1
EU0380	RSP Process Air Heater (C-2800), 3 MMBtu/hr, Distillate Fuel-fired	CH10B

Permit Condition EU0370-001 through EU0380-001

10 CSR 10-6.260

Restriction of Emissions of Sulfur Compounds ²

Emission Limitation:

- 1) Emissions from these source operations shall not contain more than 500 parts per million by volume (ppmv) of sulfur dioxide or more than 35 milligrams per cubic meter (mg/m³) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Operational Limitation:

The emission units shall be limited to burning fuel oil with a sulfur content of no more than 0.5% sulfur by weight. The fuel oils known to be less than 0.5% by weight sulfur per Chapter 414 RSMo, Section 414.032, ASTM D396-Table 1 and ASTM D975-Table 1, are fuel oil No. 1 and No. 2 and diesel fuel oil Grade Low Sulfur No. 1-D, Grade Low Sulfur No. 2-D. However, these units are not limited to the known fuel oils listed above, but are limited to fuel oils based solely on having a percent sulfur by weight content of 0.5% or less.

Monitoring/Recordkeeping:

The permittee shall maintain records of the fuel type used verifying a sulfur content less than 0.5% by weight. Purchase receipts, analyzed samples or certifications that verify the fuel type as a grade level with a sulfur content less than 0.5% by weight will be acceptable.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

² 10 CSR 10-6.260(3)(B) is a state-only requirement

**EU0400 through EU0491
 - Raw Material (Slag & Used Clinker) Transfer**

Emission Unit	Description	2007 EIQ Reference #
EU0400	Barge Unloading to Trucks	TH01
EU0410	Hopper Loading (KB-7000) – Slag Hopper	TH04A
EU0420	Transfer Belt (KB-7200) – Slag Transfer Belt	TH04B
EU0430	Transfer Belt (KB-7400) - Slag Transfer Belt	TH04B
EU0440	Elevator (KB-7500) – Slag Elevator	TH04C
EU0450	Transfer Belt (KB-7600) – Slag Transfer Belt	TH05
EU0460	Transfer Belt (KB-7700) – Slag Transfer Belt	TH05
EU0470	Raw Material Transfer to Mill (R-3801) not for slag or clinker, just raw materials	KP01
EU0480	Transfer Belt (R-3803) not for slag or clinker, just raw materials	KP01A
EU0490	Transfer Belt (R-3700) not for slag or clinker, just raw materials	KP01A
EU0491	Raw Mill Reject Reclaim Drags (R-4360, R-4362, R-4364) Dust Collector R-4366	KP01B

Permit Condition EU0400-001 through EU491-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348

Emission Limitation:

The owner or operator of each new or existing raw material, clinker, or finished product conveying system transfer point and bulk loading or unloading system shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent. [§63.1348]

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the affected source opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The maximum six (6)-minute average opacity exhibited during the test period shall be used to determine whether the raw material storage bin is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]

- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0500 through EU0510 – Kiln, Clinker Cooler and Raw Mill System		
Emission Unit	Description	2007 EIQ Reference #
EU0500	Kiln (KB-5100), Clinker Cooler (KC-0200) Dust Collector R-4800 Dust Collector KB-3400	KP02
EU0510	Raw Mill System (R-4300) – Raw material grinding and drying Dust Collector R-4800	KP02B

Permit Condition EU0500-001

10 CSR 10-6.260

Restriction of Emission of Sulfur Compounds

10 CSR 10-6.060

Construction Permits Required — Construction Permit No. 0392-001

Emission Limitation:

- 1) New Sources. No person shall cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time.
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards]³
- 3) The sulfur content of the waste derived liquid fuel and waste oil burned by the permittee must not average more than 2.69% in any consecutive twelve (12) month period. [Construction Permit Number: 0392-001, Special Condition 4]

Monitoring:

- 1) Compliance with sulfur dioxide emission limits shall be determined by source testing as specified in 10 CSR 10-6.030(6) or by alternate method described in 40 CFR 60 Appendix A. Source testing to determine compliance with sulfur trioxide and/or sulfuric acid mist emission limits concurrently with sulfur dioxide compliance shall be done as specified in 10 CSR 10-6.030(8).
- 2) The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be done as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3) The permittee shall calculate the average sulfur content of the waste derived liquid fuel and fuel oil burned monthly and rolling twelve-(12) month period.
- 4) The sulfur content of fuel shall be analyzed and recorded.

Recordkeeping:

- 1) Monthly logs shall be kept on the average sulfur content of the waste derived liquid fuel and fuel oil burned. The logs must show the average sulfur content each month and shall also show the average sulfur content over the most recent twelve (12) month period. [Construction Permit No. 0392-001, Special Condition 5]
- 2) The information contained in the required logs shall be made immediately available for inspection to Department of Natural Resources' personnel upon verbal request. [Construction Permit No. 0392-001, Special Condition 6]
- 3) The permittee shall keep a copy of construction permit number: 0392-001 at the plant site and be made available to Department of Natural Resources personnel upon verbal request. [Construction Permit No. 0392-001, Special Condition 9]
- 4) The permittee shall maintain an accurate record of the sulfur content of fuel as fired for the coal. The records should demonstrate that no coal utilized in the kilns was of a sulfur content greater than 6.6 percent by weight. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) The permittee shall retain copies of all source tests to show compliance with 10 CSR 10-6.260.

Reporting: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) listed above.

³ 10 CSR 10-6.260(3)(B) is state-only requirement.

Permit Condition EU0500-002

**10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 0691-010 and 0392-001**

Emission Limitation:

- 1) The permittee must not feed more than 2.32 tons per hour of Plastic Derived Fuel (PDF) blend to the calciner. [Construction Permit No: 0691-010, Special Condition 4 Modified from the March 2007 stack test]
- 2) The permittee must not feed more than 2.1 tons per hour of tires into the kiln. [Construction Permit No: 0691-010, Special Condition 4 Modified from the June 1992 stack test]
- 3) The permittee must not burn more than twenty million (20,000,000) gallons of Waste Derived Liquid Fuel in any consecutive twelve (12) month period. [Construction Permit No.: 0392-001, Special Condition 1]
- 4) The permittee must not burn more than three million (3,000,000) gallons of non-hazardous waste oil in any consecutive twelve (12) month period. [Construction Permit Number: 0392-001, Special Condition 2]
- 5) The permittee must demonstrate the following destruction and removal efficiencies: [Construction Permit Number: 0392-001, Special Condition 7]
 - a) Lead – ninety-eight percent (98%);
 - b) Mercury – thirty-three percent (33%);
 - c) Beryllium – ninety-eight percent (98%);
 - d) Total Volatile Organic Compounds – ninety-nine and ninety-nine hundredths percent (99.99%).

Monitoring:

- 1) The permittee shall monitor the throughput of the waste derived liquid fuel, waste oil and tires.
- 2) The permittee shall demonstrate the destruction and removal efficiencies when conducting Trial Burns.

Recordkeeping:

- 1) Monthly burn logs for the most recent twenty-four (24) months shall be kept on site at all times. The logs must show the total amount in gallons of Waste Derived Liquid Fuel and of waste oil burned each month and shall also show the amount burned in the most recent twelve (12) month period. Attachment B, or an equivalent created by the permittee, must be used to certify compliance with this requirement. [Construction Permit Number: 0392-001, Special Condition 3]
- 2) The information contained in the required logs shall be made immediately available for inspection to Department of Natural Resources' personnel upon verbal request. [Construction Permit Number: 0392-001, Special Condition 6]
- 3) The permittee shall keep a copy of construction permit number: 0392-001 at the plant site and be made available to Department of Natural Resources' personnel upon verbal request. [Construction Permit Number: 0392-001, Special Condition 9]
- 4) Records shall be kept on-site for the number of tires burned and the amounts of alternate fuels burned in the Portland cement kiln, with both the monthly and rolling twelve (12) month total shown. These records shall be made available immediately for inspection to Department of Natural Resources personnel upon verbal request. [Construction Permit Number: 0691-010, Special Condition 5 Modified]
- 5) The permittee shall keep a copy of construction permit number: 0691-010 on-site and made available immediately for inspection to Department of Natural Resources' personnel upon verbal request. [Construction Permit Number: 0691-010, Special Condition 6]

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit exceeded the emission limitation(s) listed above.

Permit Condition EU0500-003

10 CSR 10-6.380

Control of NO_x Emissions From Portland Cement Kilns

General Provisions:

- 1) Beginning May 1, 2007, an owner or operator of any Portland cement kiln subject to this rule shall not operate the kiln during the period starting May 1 and ending September 30 of each year, unless the kiln installs and operates with one (1) of the following: [10 CSR 10-6.380(3)(A)]:
 - a) Low-NO_x burners; [10 CSR 10-6.380(3)(A)1.]
 - b) Mid-kiln firing; [10 CSR 10-6.380(3)(A)2.]
 - c) An alternative control technology that is approved by the staff Director, and incorporated in the federally approved SIP, and is proven to achieve emission reductions of thirty percent (30%) or greater; [10 CSR 10-6.380(3)(A)3.]
 - d) An emission rate of: [10 CSR 10-6.380(3)(A)4.]
 - i) For long-wet kilns—6.8 pounds of NO_x per ton of clinker produced, averaged over the period from May 1 through September 30 of each year.
 - ii) For long-dry kilns—6.0 pounds of NO_x per ton of clinker produced, averaged over the period from May 1 through September 30 of each year.
 - iii) For preheater kilns—4.1 pounds of NO_x per ton of clinker produced, averaged over the period from May 1 through September 30 of each year.
 - iv) For preheater/precalciner kilns—2.7 pounds of NO_x per ton of clinker produced, averaged over the period from May 1 through September 30 of each year; or
 - e) The findings of a case-by-case study committed to and conducted by the owner or operator and approved by the staff Director, and incorporated into the federally approved SIP, taking into account energy, environmental, and economic impacts and other costs to determine an emission limitation that is achievable for the installation through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of NO_x. [10 CSR 10-6.380(3)(A)5.]
- 2) To meet the requirements of 10 CSR 10-6.380(3)(A)3. or (3)(A)5. of this rule, the owner or operator may take account as a portion of the required NO_x reductions, physical and quantifiable measures to increase energy efficiency, reduce energy demand, or increase use of renewable or recoverable fuels. [10 CSR 10-6.380(3)(B)]
- 3) *Excess Emissions During Start-Up, Shutdown, or Malfunction.* If the owner or operator provides notice of excess emissions pursuant to state rule 10 CSR 10-6.050(3)(B), the Director will determine whether the excess emissions are attributable to start-up, shutdown or malfunction conditions, pursuant to rule 10 CSR 10-6.050(3)(C). If the Director determines that the excess emissions are attributable to such conditions, and if such excess emissions cause a kiln to exceed the applicable emission limits in this rule, the Director will determine whether enforcement action is warranted, as provided in rule 10 CSR 10-6.050(3)(C). If the Director determines that the excess emissions are attributable to a start-up, shutdown, or malfunction condition and does not warrant enforcement action, those emissions would not be included in the calculation of ozone season NO_x emissions. [10 CSR 10-6.380(3)(C)]

Monitoring: [10 CSR 10-6.380(4)(C)]

- 1) An owner or operator complying with 10 CSR 10-6.380(3)(A)1. or (3)(A)2. shall maintain and operate the device according to the manufacturer's specifications as approved by the permitting agency. The monitoring shall:
 - a) Include parameters indicated in the manufacturer's specifications and recommendations for the low-NO_x burner or mid-kiln firing system as approved by the permitting agency; and

- b) Identify the specific operation conditions to be monitored and correlation between the operating conditions and NO_x emission rate.
- 2) An owner or operator complying with 10 CSR 10-6.380(3)(A)3., (3)(A)4., or (3)(A)5. shall complete an initial performance test by May 1, 2007 and subsequent performance tests, on an annual basis, consistent with the requirements of 10 CSR 10-6.380(5).
- 3) An owner or operator may comply with the requirements in 10 CSR 10-6.380(4)(C)1. through the use of an alternative compliance method approved by the staff Director and incorporated in the federally approved SIP.
- 4) Any deviation from the operating conditions or specifications, which result in an increase in NO_x emissions, established in 10 CSR 10-6.380(4)(C) constitute a violation of this rule, unless the owner or operator demonstrates to the satisfaction of the Director that the deviation did not result in an increase in NO_x emissions.

Test Methods: [10 CSR 10-6.380(5)]

NO_x emission level testing shall use one (1) of the following methods as specified by 40 CFR Part 60

Appendix A—Reference Methods:

- 1) Method 7—Determination of Nitrogen Oxide Emissions from Stationary Sources;
- 2) Method 7A—Determination of Nitrogen Oxide Emissions from Stationary Sources—Ion Chromatographic Method;
- 3) Method 7C—Determination of Nitrogen Oxide Emissions from Stationary Sources—Alkaline-Permanganate/Colorimetric Method;
- 4) Method 7D—Determination of Nitrogen Oxide Emissions from Stationary Sources—Alkaline-Permanganate/Ion Chromatographic Method; or
- 5) Method 7E—Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure).

Recordkeeping: [10 CSR 10-6.380(4)(B)]

- 1) Any owner or operator of a unit subject to this rule shall produce and maintain records, which shall include, but are not limited to the results of any initial performance test, the results of any subsequent performance tests, the date, time and duration of any start-up, shutdown or malfunction in the operation of any of the cement kilns or the emissions monitoring equipment, as applicable.
- 2) If an owner or operator elects to use Subsection (3)(B) of this rule as part of the compliance plan, the owner or operator must retain records as agreed to in the approved compliance plan.
- 3) Daily cement kiln clinker production in tons per day.
- 4) Any applicable monitoring data.
- 5) All records required to be produced or maintained shall be retained on-site for a minimum of five (5) years and made available upon request.

Reporting: [10 CSR 10-6.380(4)(A)]

The owner or operator of a kiln subject to this rule shall comply with the following requirements:

- 1) By May 1, 2007, the owner or operator shall submit to the staff Director the identification number and type of each unit subject to this rule, the name and address of the plant where the unit is located, and the name and telephone number of the person responsible for demonstrating compliance with this rule;
- 2) The owner or operator shall submit to the staff Director by October 31 of each year, beginning in the year 2007, an annual report documenting for that unit:
 - a) The emissions, in pounds of NO_x per ton of clinker produced from each affected Portland cement kiln during the period from May 1 through September 30;
 - b) The results of any performance testing; and
 - c) Cement kiln clinker production, in tons, from May 1 through September 30; and
- 3) If the owner or operator elects to comply with 10 CSR 10-6-380(3)(A)3. or (3)(A)5, the owner or operator will supply, starting April 2008, the staff with a report as specified in the compliance plan.

Permit Condition EU0500-004

10 CSR 10-6.080

Emission Standards for Hazardous Air Pollutants

40 CFR Part 61, Subpart FF

National Emission Standard for Benzene Waste Operations

Standards:

1) *General* [§61.342]:

- a) Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 megagrams (Mg) (11 tons per year) as determined in §61.342(a) of this subpart shall manage and treat the facility waste as follows: [§61.342(c)]
- b) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste stream, even if the wastes are not discharged to an individual drain system, the owner or operator shall: [§61.342(c)(1)]
 - i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in §61.348. [§61.342(c)(1)(i)]
 - ii) Comply with the standards specified in §§61.343 through 61.347 for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with §61.342(c)(1)(i). [§61.342(c)(1)(ii)]

2) *Treatment Process* [§61.348]:

- a) Except as provided in §61.348(a)(5), the owner or operator shall treat the waste stream in accordance with the following requirements: [§61.348(a)]
 - i) The owner or operator shall design, install, operate and maintain a treatment process that either: [§61.348(a)(1)]
 - ii) Removes benzene from the waste stream to a level less than 10 parts per million by weight (ppmw) on a flow-weighted annual average basis. [§61.348(a)(1)(i)]
 - (1) Removes benzene from the waste stream by 99 percent or more on a mass basis, or [§61.348(a)(1)(ii)]
 - (2) Destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene. [§61.348(a)(1)(iii)]
- b) Except as specified in §61.348(e)(3), if the treatment process unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance. [§61.348(e)]
 - i) Each seal, access door, and all other openings shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly. [§61.348(e)(1)]
 - ii) Except as provided in §61.350, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but no later than fifteen (15) calendar days after identification. [§61.348(e)(2)]
 - iii) If the cover and closed-vent system operate such that the treatment process unit is maintained at a pressure less than atmospheric pressure, the owner or operator may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met: [§61.348(e)(3)]
 - (1) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.348(e)(3)(i)]
 - (2) The opening is designed to operate with no detectable emissions as indicated by the instrument reading of less than five hundred parts per million by volume (500 ppmv) above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and [§61.348(e)(3)(ii)]

(3) The pressure is monitored continuously to ensure that the pressure in the treatment process unit remain below atmospheric pressure. [§61.348(e)(3)(iii)]

3) *Delay of Repair [§61.350]:*

- a) Delay of repair of facilities or units will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. [§61.350(a)]
- b) Repair of such equipment shall occur before the end of the next facility or unit shutdown. [§61.350(b)]

Monitoring:

Compliance with 40 CFR Part 61, Subpart FF will be determined by review of facility records and results from test and inspections using methods and procedures specified in §61.355. [§61.342(g)]

- 1) An owner or operator shall determine the total annual benzene quantity from facility waste by the following procedure: [§61.355(a)]
 - a) For each waste stream having a flow-weighted annual average water content greater than ten percent (10%) water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in §61.342(a), the owner or operator shall: [§61.355(a)(1)]
 - i) Determine the annual waste quantity for each waste stream using the procedures specified in §61.355(b). [§61.355(a)(1)(i)]
 - ii) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in §61.355(c). [§61.355(a)(1)(ii)]
 - iii) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration. [§61.355(a)(1)(iii)]
 - b) Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to §61.355(b)(4). [§61.355(a)(2)]
- 2) The determination of annual waste quantity for wastes that are received at hazardous waste treatment, storage, or disposal facilities from off-site shall be made at the point where the waste enter the hazardous waste treatment, storage, or disposal facility. [§61.355(b)(3)]
- 3) For the purpose of the calculation required by §§61.355(a), an owner or operator shall determine the flow-weighted annual average benzene concentration in a manner that meets the requirements given in §61.355(c)(1) using either of the methods given in §61.355(c)(2) and §61.355(c)(3). [§61.355(c)]
 - a) The determination of flow-weighted annual average benzene concentration shall meet all of the following criteria: [§61.355(c)(1)]
 - i) The determination shall be made at the point of waste generation except for the specific cases given in §61.355(c)(1)(i)(A) through (D). [§61.355(c)(1)(i)]
 - (1) The determination for wastes that are received from offsite shall be made at the point where the waste enters the hazardous waste treatment, storage or disposal facility. [§61.355(c)(1)(i)(C)]
 - ii) Volatilization of the benzene by exposure to air shall not be used in the determination to reduce the benzene concentration. [§61.355(c)(1)(ii)]
 - iii) Mixing or diluting the waste stream with other wastes or other material shall be used in the determination – to reduce the benzene concentration. [§61.355(c)(1)(iii)]
 - iv) For wastes with multiple phases, the determination shall provide the weighted-average benzene concentration based on the benzene concentration in each phase of the waste and the relative proportion of the phases. [§61.355(c)(1)(iv)]
 - b) Measurement of the benzene concentration in the waste stream in accordance with the following procedures; [§61.355(c)(3)]
 - i) Collect a minimum of three (3) representative samples from each waste stream. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere. [§61.355(c)(3)(i)]
 - ii) For waste in enclosed pipes, the following procedures shall be used: [§61.355(c)(3)(ii)]

- (1) Samples shall be collected prior to the waste being exposed to the atmosphere in order to minimize the loss of benzene prior to sample. [§61.355(c)(3)(ii)(A)]
 - (2) A static mixer shall be installed in the process line or in a by-pass line unless the owner or operator demonstrates that installation of a static mixer in the line is not necessary to accurately determine the benzene concentration of the waste stream. [§61.355(c)(3)(ii)(B)]
 - (3) The sampling tap shall be located within two (2) pipe diameters of the static mixer outlet. [§61.355(c)(3)(ii)(C)]
 - (4) Prior to the initiation of sampling, sample lines and cooling coil shall be purged with at least four volumes of waste. [§61.355(c)(3)(ii)(D)]
 - (5) After purging, the ample flow shall be directed to a sample container and the tip of the sampling tube shall be kept below the surface of the waste during sampling to minimize contact with the atmosphere. [§61.355(c)(3)(ii)(E)]
 - (6) Samples shall be collected at a flow rate such that the cooling coil is able to maintain a waste temperature less than 10°C (50°F). [§61.355(c)(3)(ii)(F)]
 - (7) After filling, the ample container shall be capped immediately (within 5 seconds) to leave a minimum headspace in the container. [§61.355(c)(3)(ii)(G)]
 - (8) The sample containers shall immediately be cooled and maintained at a temperature below 10°C (50°F) for transfer to the laboratory. [§61.355(c)(3)(ii)(H)]
- iii) When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling. [§61.355(c)(3)(iii)]

Test Methods:

Each waste sample shall be analyzed using one of the following test methods for determining the benzene concentration in a waste stream: [§61.355(c)(3)(iv)]

- 1) Method 8010, Aromatic Volatile Organics in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication No. SW-846; [§61.355(c)(3)(iv)(A)]
- 2) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in “Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods,” EPA Publication No. SW-846; [§61.355(c)(3)(iv)(B)]
- 3) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in “Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods,” EPA Publication No. SW-846; [§61.355(c)(3)(iv)(C)]
- 4) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in “Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods,” EPA Publication No. SW-846; [§61.355(c)(3)(iv)(D)]
- 5) Method 602, Purgeable Aromatics, as described in 40 CFR Part 136, Appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA methods; or [§61.355(c)(3)(iv)(E)]
- 6) Method 624, Purgeables, as described in 40 CFR Part 136, Appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA method. [§61.355(c)(3)(iv)(F)]

Recordkeeping:

- 1) Each owner or operator of a facility subject to the provisions of this subpart shall comply with the recordkeeping requirements of §61.356. Each record shall be maintained in a readily accessible location at the installation for a period not less than five years from the date the information is recorded unless otherwise specified. [§61.356(a)]
- 2) Each owner or operator shall maintain records that identify each waste stream at the installation subject to 40 CFR Part 61, Subpart FF and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. In addition, the owner or operator shall maintain the following records: [§61.356(b)]
 - a) For each waste stream not controlled for benzene emissions in accordance with this subpart, the records shall include all test results, measurements, calculations, and other documentation used to determine the

following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration and annual benzene quantity. [§61.356(b)(1)]

- 3) An owner or operator using a treatment process or wastewater treatment system unit in accordance with §61.348 shall maintain the following records. The documentation shall be retained for the life of the unit. [§61.356(e)]
- a) A statement signed and dated by the owner or operator certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur. [§61.356(e)(1)]
 - b) If engineering calculation are used to determine treatment process or wastewater treatment system unit performance, then the owner or operator shall maintain the complete design analysis for the unit. The design analysis shall include for example the following information: Design specifications, drawings, schematics, piping and instrumentation diagrams, an other documentation necessary to demonstrate the unit performance. [§61.356(e)(2)]
 - c) If performance tests are used to determine treatment process or wastewater treatment system unit performance then the owner or operator shall maintain all test information necessary to demonstrate the unit performance. [§61.356(e)(3)]
 - i) A description of the unit including the following information: type of treatment process; manufacturer name and model number; and for each waste stream entering and exiting the unit, the waste stream type (e.g., process wastewater, sludge, slurry, etc.), and the design flow rate and benzene content. [§61.356(e)(3)(i)]
 - ii) Documentation describing the test protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the unit performance. The description of the test protocol shall include the following information: sampling locations, sampling method, sampling frequency, and analytical procedures used for sample analysis. [§61.356(e)(3)(ii)]
 - iii) Records of unit operating conditions during each test run including all key process parameters. [§61.356(e)(3)(iii)]
 - iv) All test results. [§61.356(e)(3)(iv)]
 - d) For each treatment process operated to comply with §61.348, the owner or operator shall maintain documentation that includes the following information regarding the unit operation: [§61.356(i)]
 - i) Dates of startup and shutdown of the unit. [§61.356(i)(1)]
 - ii) Periods of when the unit is not operated as designed. [§61.356(i)(2)]

Reporting:

- 1) Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the owner or operator shall submit annually to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of §61.357. If the information in the annual report required in paragraphs (a)(1) through (a)(3) of §61.357 listed below is not changed in the following year, the owner or operator may submit a statement to that effect.: [§61.357(d)(2)]
- a) Total annual benzene quantity from facility waste determined in accordance with §61.355(a). [§61.357(a)(1)]
 - b) A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of 40 CFR Part 61, Subpart FF. [(§61.357(a)(2)]
 - c) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of 40 CFR Part 61, Subpart FF, the following information shall be added to the table: [§61.357(a)(3)]
 - i) Whether or not the water content of the waste stream is greater than 10 percent; [§61.357(a)(3)(i)]
 - ii) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate; [§61.357(a)(3)(ii)]
 - iii) Annual waste quantity for the waste stream; [§61.357(a)(3)(iii)]
 - iv) Range of benzene concentrations for the waste stream; [§61.357(a)(3)(iv)]
 - v) Annual average flow-weighted benzene concentration for the waste stream; and [§61.357(a)(3)(v)]

- vi) Annual benzene quantity for the waste stream. [§61.357(a)(3)(vi)]
- 2) Beginning three (3) months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart. [§61.357(d)(6)]

Permit Condition EU0500-005 and EU0510-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Particulate Matter (PM) and Opacity

Emission Limitation:

No owner or operator of an existing, reconstructed or new brownfield kiln or an existing, reconstructed or new brownfield in-line kiln/raw mill at a facility that is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources, any gases which: [§63.1343(b)]

- 1) Contain particulate matter (PM) in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the combined particulate matter emissions from the kiln or in-line kiln/raw mill and the alkali bypass are subject to this emission limit. [§63.1343(b)(1)]
- 2) Exhibit opacity greater than 20 percent. [§63.1343(b)(2)]

Alternate Standard Provision:

- 1) If the kiln is burning hazardous waste, the permittee is not subject to this permit condition.
- 2) If the kiln is not burning hazardous waste, the permittee may comply with EU0500-005 (40 CFR Part 63, Subpart LLL) or EU0500-014 (40 CFR Part 63, Subpart EEE).

Performance Testing:

- 1) Except as provided in §63.1349 (e), performance tests required under paragraphs §63.1349(b)(1) and (b)(2) shall be repeated every five years, except that the owner or operator of in-line kiln/raw mill is not required to repeat the initial performance test of opacity for the in-line kiln/raw mill. [§63.1349(c)]
- 2) If a source plans to undertake a change in operations that may adversely affect compliance with an applicable PM standard under §63.1343, the source must conduct a performance test as specified in §63.1349(b)(1). [§63.1349(e)(2)]

Monitoring:

- 1) The owner or operator of an affected source subject to a particulate matter standard under §63.1343 shall install, calibrate, maintain, and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere. All requirements relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS requirement are deferred pending further rulemaking. [§63.1350(k)]
- 2) The owner or operator of a kiln or in-line kiln/raw mill shall monitor opacity at each point where emissions are vented from these affected sources including alkali bypasses in accordance with §63.1350(c)(1) through (c)(3). [§63.1350(c)]
- a) Except as provided in §63.1350(c)(2), the owner or operator shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to part 60 of this chapter. [§63.1350(c)(1)]

- b) 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. If the average opacity for any 6-minute block period exceeds 20 percent, this shall constitute a violation of the standard. [§63.1350(c)(3)]
- 3) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3) of 40 CFR Part 63; and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]
- 3) In addition to the recordkeeping requirements in §63.1355(b), the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c).
- 4) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the reporting requirements for the performance test stated in Permit Condition: PW005.
- 2) As required by §63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status. [§63.1354(b)(1)]
- 3) As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]
- 4) As required by §63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under §63.8(e). [§63.1354(b)(7)]
- 5) As required by §63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicates the source is not in compliance with the applicable emission limitation or operating parameter limit. [§63.1354(b)(8)]
- 6) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent (10%) or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report (mentioned in PW003). [§63.1354(b)(10)]

Permit Condition EU0500-006 and EU0510-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Dioxins and Furans (D/F)

Emission Limitation:

No owner or operator of an existing kiln/raw mill located at a facility that is a major source subject to the provisions of this subpart shall cause to be discharged into the atmosphere from these affected sources, any gases which contain D/F in excess of: [§63.1343(b) and (b)(3)]

- 1) 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ); or [§63.1343(b)(3)(i)]
- 2) 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 °C (400 °F) or less. [§63.1343(b)(3)(ii)]

Operational Limitation:

- 1) The owner or operator of an in-line kiln/raw mill subject to a D/F emission limitation under §63.1343 must operate the in-line kiln/raw mill, such that: [§63.1344(a)]
 - a) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in §63.1344(b) and established during the performance test when the raw mill was operating is not exceeded. [§63.1344(a)(1)]
 - b) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in §63.1344(b) and established during the performance test when the raw mill was not operating, is not exceeded. [§63.1344(a)(2)]
 - c) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass specified in §63.1344(b) and established during the performance test, with or without the raw mill operating, is not exceeded. [§63.1344(a)(3)]
- 2) The temperature limit for affected sources meeting the limits of §63.1344(a)(1) through (a)(3) is determined in accordance with §63.1349(b)(3)(iv). [§63.1344(b)]
- 3) Except as provided in §63.1344(e), the owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique must specify and use the brand and type of activated carbon used during the performance test until a subsequent performance test is conducted, unless the site-specific performance test plan contains documentation of key parameters that affect adsorption and the owner or operator establishes limits based on those parameters, and the limits on these parameters are maintained. [§63.1344(d)]
- 4) The owner or operator of an affected source subject to a D/F emission limitation under §63.1343 that employs carbon injection as an emission control technique may substitute, at any time, a different brand or type of activated carbon provided that the replacement has equivalent or improved properties compared to the activated carbon specified in the site-specific performance test plan and used in the performance test. The owner or operator must maintain documentation that the substitute activated carbon will provide the same or better level of control as the original activated carbon. [§63.1344(e)]
- 5) All in-line kilns/raw mills must remove (i.e. not recycle to the kiln) from the kiln system sufficient cement kiln dust to maintain the desired product quality. [§63.1344(h)]

Alternate Standard Provision:

- 1) If the kiln is burning hazardous waste, the permittee is not subject to this permit condition.
- 2) If the kiln is not burning hazardous waste, the permittee may comply with EU0500-006 (40 CFR Part 63, Subpart LLL) or EU0500-007 (40 CFR Part 63, Subpart EEE).

Performance Testing:

- 1) Performance tests required under §63.1349(b)(3) shall be repeated every 30 months. [§63.1349(d)]
- 2) If a source plans to undertake a change in operations that may adversely affect compliance with an applicable D/F standard under this subpart, the source must conduct a performance test and establish new temperature limit(s) as specified in §63.1349(b)(3). [§63.1349(e)(1)]

Monitoring:

- 1) The owner or operator of an affected source subject to a limitation on D/F emissions shall monitor D/F emissions in accordance with §63.1350(f)(1) through (f)(6). [§63.1350(f)]
 - a) The owner or operator shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln, in-line kiln/raw mill and/or alkali bypass PM control devices. [§63.1350(f)(1)]
 - i) The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in §63.1349(b)(3)(iv). [§63.1350(f)(1)(i)]
 - ii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator. [§63.1350(f)(1)(ii)]
 - b) The owner or operator shall monitor and continuously record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the kiln, in-line kiln/raw mill and/or alkali bypass PMCD. [§63.1350(f)(2)]
 - c) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures. [§63.1350(f)(3)]
 - d) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average. [§63.1350(f)(4)]
 - e) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings. [§63.1350(f)(5)]
 - f) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months. [§63.1350(f)(6)]
- 2) The owner or operator of an affected source subject to an emissions limitation on D/F emissions that employs carbon injection as an emission control technique shall comply with the monitoring requirements of §63.1350(f)(6) (f)(1) through (f)(6) and §63.1350(g)(1) through (g)(6) to demonstrate continuous compliance with the D/F emissions standard. [§63.1350(g)]
 - a) Install, operate, calibrate and maintain a continuous monitor to record the rate of activated carbon injection. The accuracy of the rate measurement device must be ± 1 percent of the rate being measured. [§63.1350(g)(1)]
 - b) Verify the calibration of the device at least once every three months. [§63.1350(g)(2)]
 - c) The three-hour rolling average activated carbon injection rate shall be calculated as the average of 180 successive one-minute average activated carbon injection rates. [§63.1350(g)(3)]
 - d) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average. [§63.1350(g)(4)]
 - e) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off, the calculation of the three-hour rolling average activated carbon injection rate must begin anew, without considering previous recordings. [§63.1350(g)(5)]
 - f) The owner or operator must install, operate, calibrate and maintain a continuous monitor to record the activated carbon injection system carrier gas parameter (either the carrier gas flow rate or the carrier gas pressure drop) established during the D/F performance test in accordance with §63.1350(g)(6)(i) through (g)(6)(iii). [§63.1350(g)(6)]

- i) The owner or operator shall install, calibrate, operate and maintain a device to continuously monitor and record the parameter value. [§63.1350(g)(6)(i)]
 - ii) The owner or operator must calculate and record three-hour rolling averages of the parameter value. [§63.1350(g)(6)(ii)]
 - iii) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average shall be added to the previous 179 values to calculate the three-hour rolling average. [§63.1350(g)(6)(iii)]
- 3) The owner or operator of any in-line kiln/raw mill subject to a D/F emission limit under this subpart shall conduct an inspection of the components of the combustion system of each in-line kiln/raw mill at least once per year. [§63.1350(i)]
 - 4) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3) of this part; and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]
- 3) In addition to the recordkeeping requirements §63.1355(b), the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c). [§63.1355(c)]
- 4) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- 1) The permittee shall comply with the reporting requirements for the performance test stated in Permit Condition: PW005.
- 2) As required by §63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status. [§63.1354(b)(1)]
- 3) As required by §63.10(e)(2), the owner or operator shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by §63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test. [§63.1354(b)(6)]
- 4) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring performance report along with the summary report (mentioned in PW003). [§63.1354(b)(10)]

Permit Condition EU0500-007

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Dioxins and Furans**

Emission Limitation:

§63.1220 – *Replacement Standards for hazardous waste burning cement kilns*

- 1) You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain dioxins and furans, either: [§63.1220(a)(1)]
 - a) Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or [§63.1220(a)(1)(i)]
 - b) Emissions in excess of 0.40 ng TEQ/dscm corrected to 7 percent oxygen provided that the combustion gas temperature at the inlet to the initial dry particulate matter control device is 400 °F or lower based on the average of the test run average temperatures [§63.1220(a)(1)(ii)]
- 2) *Cement kilns with in-line kiln raw mills* [§63.1220(d)]

General - [§63.1220(d)(1)]

 - a) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v)., [§63.1220(d)(1)(i)]
 - b) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - c) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
 - d) If your in-line kiln raw mill has dual stacks, you may assume that the dioxin/furan emission levels in the by-pass stack and the operating parameter limits determined during performance testing of the by-pass stack when the raw mill is off-line are the same as when the mill is on-line. [§63.1220(d)(1)(iv)]
 - e) In lieu of conducting a performance test to demonstrate compliance with the dioxin/furan emission standards for the mode of operation when the raw mill is on-line, you may specify in the performance test workplan and Notification of Compliance the same operating parameter limits required under §63.1209(k) for the mode of operation when the raw mill is on-line as you establish during performance testing for the mode of operation when the raw mill is off-line. [§63.1220(d)(1)(v)]
- 3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]

Alternate Standard Provision:

If the kiln is not burning hazardous waste, the permittee may comply with EU0500-006 (40 CFR Part 63, Subpart LLL) or EU0500-007 (40 CFR Part 63, Subpart EEE).

Operating Parameters:

- 1) You must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(k)]
 - a) *Gas temperature at the inlet to a dry particulate matter control device.* [§63.1209(k)(1)]
 - i) If the combustor is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where particulate matter is suspended in contact with combustion gas, you must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly

rolling average. You must establish the hourly rolling average limit as the average of the test run averages. [§63.1209(k)(1)(i)]

- ii) You must establish a minimum hourly rolling average limit as the average of the test run averages. [§63.1209(k)(2)(ii)]
 - b) *Maximum flue gas flowrate or production rate.* [§63.1209(k)(3)]
 - i) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(k)(3)(i)]
 - ii) You must comply with this limit on a hourly rolling average basis; [§63.1209(k)(3)(ii)]
 - c) *Maximum hazardous waste feedrate.* [§63.1209(k)(4)]
 - i) You must establish limits on the maximum pumpable and total (pumpable and nonpumpable) hazardous waste feedrate for each location where waste is fed. [§63.1209(k)(4)(i)]
 - ii) You must establish the limits as the average of the maximum hourly rolling averages for each run. [§63.1209(k)(4)(ii)]
 - iii) You must comply with the feedrate limit(s) on a hourly rolling average basis. [§63.1209(k)(4)(iii)]
- 2) *Operating under different modes of operation.* [§63.1209(q)]
If the permittee operates under different modes of operation, the permittee will comply with the temperature operating parameter limit established during performance testing of the kiln with the raw mill off-line. By agreement with the Missouri Department of Natural Resources in the Initial Comprehensive Performance Test Plan, the permittee is not required to re-establish rolling averages when the raw mill status changes.

Test Methods:

You must use the following test methods to determine compliance with the emissions standards of this subpart: [§63.1208(b)]

- 1) You must use the following test methods to determine compliance with the emission standard for dioxins and furans: [§63.1208(b)(1)]
 - a) Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans emissions from Stationary Sources, EPA Publication SW-846 (incorporated by reference—see §63.14); or [§63.1208(b)(1)(i)(A)]
 - b) Method 23, provided in appendix A, part 60 of this chapter, after approval by the Administrator. [§63.1208(b)(1)(i)(B)]
 - c) You may request approval to use Method 23 in the performance test plan required under §63.1207(e)(i) and (ii). [§63.1208(b)(1)(i)(B)(I)]
 - d) In determining whether to grant approval to use Method 23, the Administrator may consider factors including whether dioxin/furan were detected at levels substantially below the emission standard in previous testing, and whether previous Method 0023 analyses detected low levels of dioxin/furan in the front half of the sampling train. [§63.1208(b)(1)(i)(B)(2)]
 - e) Sources that emit carbonaceous particulate matter, such as coal-fired boilers, and sources equipped with activated carbon injection, will be deemed not suitable for use of Method 23 unless you document that there would not be a significant improvement in quality assurance with Method 0023A. [§63.1208(b)(1)(i)(B)(3)]
- 2) You must sample for a minimum of three hours, and you must collect a minimum sample volume of 2.5 dscm; [§63.1208(b)(1)(ii)]
- 3) You may assume that nondetects are present at zero concentration. [§63.1208(b)(1)(iii)]

Monitoring:

- 1) CMS Monitoring:
 - a) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under §63.1208. [§63.1209(b)(1)]
 - b) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply

with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]

- i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And, [§63.1209(b)(2)(i)]
- ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
- c) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
- d) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
- e) *Calculation of Rolling Averages:* [§63.1209(b)(5)]
 - i) *Calculation of rolling averages initially.*

Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
 - ii) *Calculation of rolling averages upon intermittent operations.*

You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
 - iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* [§63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B), you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]
- 2) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive and confirmatory performance testing recordkeeping requirements as stated in permit conditions PW017 and PW018.
- 2) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - a) Gas temperature at the inlet to a dry particulate matter control device; [§63.1209(k)(1)(i)]
 - b) Combustion chamber temperature; [§63.1209(k)(2)(ii)]

- c) Flue gas flowrate or production rate; [§63.1209(k)(3)(ii)]
- d) Waste feedrate; [§63.1209(k)(4)(iii)]
- 3) The permittee shall maintain records of the comprehensive and confirmatory performance test plans.
- 4) The permittee shall maintain records of the comprehensive and confirmatory performance test results.
- 5) The permittee shall maintain records on the calibration checks of the CMS equipment.
- 6) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-008

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Mercury**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns

- 1) You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain mercury, both: [§63.1220(a)(2)]
 - a) An average as-fired concentration of mercury in all hazardous waste feedstreams in excess of 3.0 parts per million by weight; and [§63.1220(a)(2)(i)]
 - b) Either: [§63.1220(a)(2)(ii)]
 - i) Emissions in excess of 120 µg/dscm, corrected to 7 percent oxygen; or [§63.1220(a)(2)(ii)(A)]
 - ii) A hazardous waste feed maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm; [§63.1220(a)(2)(ii)(B)]
 - c) A hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm; [§63.1220(a)(2)(iii)]
- 2) *Cement kilns with in-line kiln raw mills* [§63.1220(d)]
 - a) *General* - [§63.1220(d)(1)]
 - i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v). [§63.1220(d)(1)(i)]
 - ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
 - b) *Emissions averaging*. You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures: [§63.1220(d)(2)]

- i) *Averaging methodology.* You must calculate the time-weighted average emission concentration with the following equation: [§63.1220(d)(2)(i)]

$$C_{\text{total}} = \left[C_{\text{mill-off}} \times \left(\frac{T_{\text{mill-off}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right] + \left[C_{\text{mill-on}} \times \left(\frac{T_{\text{mill-on}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right]$$

Where:

C_{total} = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

$C_{\text{mill-off}}$ = average performance test concentration of regulated constituent with the raw mill off-line;

$C_{\text{mill-on}}$ = average performance test concentration of regulated constituent with the raw mill on-line;

$T_{\text{mill-off}}$ = time when kiln gases are not routed through the raw mill; and

$T_{\text{mill-on}}$ = time when kiln gases are routed through the raw mill.

- ii) *Compliance.* [§63.1220(d)(2)(ii)]

(1) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by §63.1220(d)(2). [§63.1220(d)(2)(ii)(A)]

(2) Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance. [§63.1220(d)(2)(ii)(B)]

- iii) *Notification.* [§63.1220(d)(2)(iii)]

(1) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). [§63.1220(d)(2)(iii)(A)]

(2) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis. [§63.1220(d)(2)(iii)(B)]

(3) You must document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time. [§63.1220(d)(2)(iii)(C)]

- 3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]

Alternate Standard Provision:

1) To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW021.

2) The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 88 µg/dscm or less; [§63.1206(b)(10)(viii)(A)]

3) *Alternative to the interim standards for mercury for cement kilns:* [§63.1206(b)(15).

a) *General* - In lieu of complying with the applicable mercury standards of §§63.1204(a)(2) existing cement kilns, you may instead elect to comply with the alternative mercury standard described in §63.1206(b)(15)(ii) through (b)(15)(v). [§63.1206(b)(15)(i)]

b) *Operating requirement* - You must not exceed a hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) of 120 µg/dscm on a twelve-hour rolling average. [§63.1206(b)(15)(ii)]

c) To document compliance with the operating requirement of §63.1206(b)(15)(ii), you must: [§63.1206(b)(15)(iii)]

- i) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to §63.1209(c); [§63.1206(b)(15)(iii)(A)]
 - ii) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate); [§1206(b)(15)(iii)(B)]
 - iii) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted; [§1206(b)(15)(iii)(C)]
 - iv) Interlock the MTEC calculated in paragraph §1206(b)(15)(iii)(C) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the operating requirement of paragraph §1206(b)(15)(ii). [§1206(b)(15)(iii)(D)]
- d) In lieu of the requirement in paragraph §1206(b)(15)(iii), you may: [§1206(b)(15)(iv)]
- i) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in §1206(b)(15)(iii)(C) is below the operating requirement of §1206(b)(15)(ii); and [§1206(b)(15)(iv)(A)]
 - ii) (B) Interlock the minimum gas flowrate limit and maximum feedrate limits in §1206(b)(15)(iv)(A) to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the limits in §1206(b)(15)(iv)(A). [§1206(b)(15)(iv)(B)]
- e) *Notification requirement* - You must notify in writing the RCRA authority that you intend to comply with the alternative standard.
- 4) If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0500-005 and EU0500-006, the permittee is not subject to this permit condition, except for the monitoring and recordkeeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- 1) You must comply with the mercury emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(1)]
- a) *Feedrate of mercury for Cement Kilns:* [§63.1209(1)(1)(iii)]
- i) When complying with the emission standards under §§63.1220(a)(2)(i), you must: [§63.1209(1)(1)(iii)(A)]
 - (1) Comply with the mercury hazardous waste feed concentration operating requirement on a twelve-hour rolling average; [§63.1209(1)(1)(iii)(A)(1)]
 - (2) Monitor and record in the operating record the as-fired mercury concentration in the hazardous waste (or the weighted-average mercury concentration for multiple hazardous waste feedstreams); [§63.1209(1)(1)(iii)(A)(2)]
 - (3) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the as-fired mercury concentration operating requirement is exceeded; [§63.1209(1)(1)(iii)(A)(3)]
 - ii) When complying with the emission standards under §§63.1204 and 63.1220(a)(2)(ii)(A), you must establish a 12-hour rolling average limit for the feedrate of mercury in all feedstreams as the average of the test run averages; [§63.1209(1)(1)(iii)(B)]
 - iii) Except as provided by §63.1209(1)(1)(iii)(D), when complying with the hazardous waste maximum theoretical emission concentration (MTEC) under §63.1220(a)(2)(ii)(B), you must: [§63.1209(1)(1)(iii)(C)]
 - (1) Comply with the MTEC operating requirement on a twelve-hour rolling average; [§63.1209(1)(1)(iii)(C)(1)]
 - (2) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to §63.1209(c); [§63.1209(1)(1)(iii)(C)(2)]
 - (3) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate); [§63.1209(1)(1)(iii)(C)(3)]

- (4) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted; [§63.1209(l)(1)(iii)(C)(4)]
- (5) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded; [§63.1209(l)(1)(iii)(C)(5)]
- iv) In lieu of complying with §63.1209(l)(1)(iii)(C), you may: [§63.1209(l)(1)(iii)(D)]
 - (1) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in §63.1209(l)(1)(iii)(C)(4) is below the operating requirement under paragraphs §63.1220(a)(2)(ii)(B); and [§63.1209(l)(1)(iii)(D)(1)]
 - (2) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when either the gas flowrate or mercury feedrate exceeds the limits identified in §63.1209(l)(1)(iii)(D)(1). [§63.1209(l)(1)(iii)(D)(2)]
- b) *Extrapolation of feedrate levels* - In lieu of establishing mercury feedrate limits as specified in §63.1209(l)(1)(iii), you may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: [§63.1209(l)(1)(v)]
 - i) Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and [§63.1209(l)(1)(v)(A)]
 - ii) Whether the extrapolated feedrates you request are warranted considering historical metal feedrate data. [§63.1209(l)(1)(v)(B)]
- 2) *Operating under different modes of operation* - If you operate under different modes of operation, you must establish operating parameter limits for each mode. You must document in the operating record when you change a mode of operation and begin complying with the operating limits for an alternative mode of operation. [§63.1209(q)]
 - a) *Operating under otherwise applicable standards after the hazardous waste residence time has transpired* - As provided by §63.1206(b)(1)(ii), you may operate under otherwise applicable requirements promulgated under Sections 112 and 129 of the Clean Air Act in lieu of the substantive requirements of this subpart. [§63.1209(q)(1)]
 - i) The otherwise applicable requirements promulgated under Sections 112 and 129 of the Clean Air Act are applicable requirements under this subpart. [§63.1209(q)(1)(i)]
 - ii) You must specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in your Documentation of Compliance under §63.1211(c), your Notification of Compliance under §63.1207(j), and your title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification, reporting, and recordkeeping. [§63.1209(q)(1)(ii)]
 - b) *Calculating rolling averages under different modes of operation* - When you transition to a different mode of operation, you must calculate rolling averages as follows: [§63.1209(q)(2)]
 - i) *Retrieval approach* - Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., you ignore continuous monitoring system values subsequently recorded under other modes of operation when you transition back to a mode of operation); or [§63.1209(q)(2)(i)]
 - ii) *Start anew* - Calculate rolling averages anew without considering previous recordings. [§63.1209(q)(2)(ii)]
 - (1) Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter. [§63.1209(q)(2)(ii)(A)]

- (2) You may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or [§63.1209(q)(2)(ii)(B)]
 - iii) *Seamless transition* - Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation. [§63.1209(q)(2)(iii)]
- 3) *Averaging periods* - The averaging periods specified in §63.1209 for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in §63.1209(l)(1)(i) for mercury. [§63.1209(r)]

Test Methods:

You must use the following test methods to determine compliance with the emissions standards of this subpart: [§63.1208(b)]

- 1) *Mercury* - You must use Method 29, provided in appendix A, 40 CFR Part 60, to demonstrate compliance with emission standard for mercury. [§63.1208(b)(2)]
- 2) *Feedstream analytical methods* - You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]

Monitoring:

- 1) You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. [§63.1209(a)(5)]
- 2) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]
 - a) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And, [§63.1209(b)(2)(i)]
 - b) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
- 3) The permittee shall comply with the comprehensive performance testing as specified in permit condition PW017.
- 4) Conduct of monitoring – The provisions of §63.8(b) apply. [§63.1209(e)]
 - a) Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: [§63.1209(f)]
 - b) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); [§63.1209(f)(1)]
 - c) §63.8(c)(4)(ii). The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of §63.8(c)(4)(ii); and [§63.1209(f)(2)]
- 5) **CMS Monitoring:**

- a) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
- b) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
- c) *Calculation of rolling averages:* [§63.1209(b)(5)]
 - i) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
 - ii) *Calculation of rolling averages upon intermittent operations* - You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
 - iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* [§63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]
- 6) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall maintain records of the data recorded by the continuous monitoring system. [§63.1209(l)(1)]
- 2) The permittee shall maintain records of the comprehensive performance test plans.
- 3) The permittee shall maintain records of the comprehensive performance test results.
- 4) The permittee shall maintain records of the calibration checks of the CMS equipment.
- 5) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-009

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Lead and Cadmium (Semi-Volatile Metals)**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns

- 1) You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain cadmium and lead, both: [§63.1220(a)(3)]
 - a) Emissions in excess of 7.6×10^{-4} lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and [§63.1220(a)(3)(i)]
 - b) Emissions in excess of 330 µg/dscm, combined emissions, corrected to 7 percent oxygen. [§63.1220(a)(3)(ii)]
- 2) *Cement kilns with in-line kiln raw mills* [§63.1220(d)]
 - a) *General* - [§63.1220(d)(1)]
 - i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v), [§63.1220(d)(1)(i)]
 - ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
 - b) *Emissions averaging*. You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures: [§63.1220(d)(2)]
 - i) *Averaging methodology*. You must calculate the time-weighted average emission concentration with the following equation: [§63.1220(d)(2)(i)]

$$C_{\text{total}} = \left[C_{\text{mill-off}} \times \left(\frac{T_{\text{mill-off}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right] + \left[C_{\text{mill-on}} \times \left(\frac{T_{\text{mill-on}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right]$$

Where:

C_{total} = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

$C_{\text{mill-off}}$ = average performance test concentration of regulated constituent with the raw mill off-line;

$C_{\text{mill-on}}$ = average performance test concentration of regulated constituent with the raw mill on-line;

$T_{\text{mill-off}}$ = time when kiln gases are not routed through the raw mill; and

$T_{\text{mill-on}}$ = time when kiln gases are routed through the raw mill.

- ii) *Compliance*. [§63.1220(d)(2)(ii)]

- (1) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by §63.1220(d)(2). [§63.1220(d)(2)(ii)(A)]

- (2) Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance. [§63.1220(d)(2)(ii)(B)]
- iii) *Notification.* [§63.1220(d)(2)(iii)]
 - (1) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). [§63.1220(d)(2)(iii)(A)]
 - (2) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis. [§63.1220(d)(2)(iii)(B)]
 - (3) You must document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time. [§63.1220(d)(2)(iii)(C)]
- 3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]

Alternate Standard Provision:

- 1) To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW021.
- 2) The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [§63.1206(b)(10)(viii)(B)]
- 3) If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0500-005 and EU0500-006, the permittee is not subject to this permit condition, except for the monitoring and recordkeeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- 1) You must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(n)]
 - a) *Maximum inlet temperature to dry particulate matter air pollution control device* - You must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages. [§63.1209(n)(1)]
 - b) *Maximum feedrate of semivolatile and low volatile metals.* [§63.1209(n)(2)]
 - i) *General* - You must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by §63.1209(n)(2)(vii). [§63.1209(n)(2)(i)]
 - ii) When complying with the emission standards under §63.1204, you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages. [§63.1209(n)(2)(ii)]
 - iii) *Cement kilns under §63.1220:* [§63.1209(n)(2)(iii)]
 - (1) When complying with the emission standards under §63.1220(a)(3)(i), you must establish 12-hour rolling average feedrate limits for semivolatile and low volatile metals as the thermal concentration of semivolatile metals or low volatile metals in all hazardous waste feedstreams. You must calculate hazardous waste thermal concentrations for semivolatile metals and low volatile metals for each run as the total mass feedrate of semivolatile metals or low volatile metals for all hazardous waste feedstreams divided by the total heat input rate for all hazardous waste feedstreams. The 12-hour rolling average feedrate limits for semivolatile metals and low volatile metals are the average of the test run averages, calculated on a thermal concentration basis, for all hazardous waste feeds. [§63.1209(n)(2)(iii)(A)]

- (2) When complying with the emission standards under §63.1220(a)(3)(ii), you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages. [§63.1209(n)(2)(iii)(B)]
- c) *Control device operating parameter limits (OPLs)*. You must establish operating parameter limits on the particulate matter control device as specified by §63.1209(m)(1). [§63.1209(n)(3)]
- d) *Maximum total chlorine and chloride feedrate* - You must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. [§63.1209(n)(4)]
- e) *Maximum flue gas flowrate or production rate*. [§63.1209(n)(5)]
- i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(n)(5)(i)]
- ii) You must comply with this limit on a hourly rolling average basis. [§63.1209(n)(5)(ii)]
- 2) *Averaging periods* - The averaging periods specified in §63.1209 for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in §63.1209(l)(1)(i) for mercury. [§63.1209(r)]

Test Methods:

You must use the following test methods to determine compliance with the emissions standards of this subpart: [§63.1208(b)]

- 1) *Cadmium and lead* - You must use Method 29, provided in Appendix A, 40 CFR Part 60, to determine compliance with the emission standard for cadmium and lead (combined).. [§63.1208(b)(3)]
- 2) *Feedstream analytical methods* - You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]

Monitoring:

- 1) You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. [§63.1209(a)(5)]
- 2) The permittee shall comply with the comprehensive performance testing as specified in permit condition PW017.
- 3) The permittee shall monitor the inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average; [§63.1209(n)(1)]
- 4) The permittee shall monitor the feedrate for semivolatile metals, combined, in all feedstreams on a twelve hour rolling average; [§63.1209(n)(2)(i)(A)]
- 5) If the alternate standard provision is utilized, the permittee shall monitor the feedrate of total chlorine and chloride in all feedstreams on a twelve (12) hour rolling average; [§63.1209(n)(4)]
- 6) The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average; [§63.1209(n)(5)(ii)]
- 7) Conduct of monitoring – The provisions of §63.8(b) apply. [§63.1209(e)]
- 8) Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: [§63.1209(f)]
- a) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); [§63.1209(f)(1)]
- b) §63.8(c)(4)(ii). The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of §63.8(c)(4)(ii); and [§63.1209(f)(2)]

9) CMS Monitoring:

- a) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [§63.1209(b)(1)]
 - b) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]
 - i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. [§63.1209(b)(2)(i)]
 - ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
 - c) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
 - d) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
 - e) *Calculation of rolling averages:* [§63.1209(b)(5)]
 - i) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
 - ii) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
 - iii) Calculation of rolling averages when the hazardous waste feed is cutoff: [§63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]
- 10) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive performance testing recordkeeping requirements as stated in permit condition PW017.

- 2) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - a) Inlet temperature to the primary dry metals emissions control device; [§63.1209(n)(1)]
 - b) Feedrate for semivolatile metals, combined, in all feedstreams; [§63.1209(n)(2)(i)(A)]
 - c) The flue gas flowrate or production rate; [§63.1209(n)(5)(ii)]
- 3) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on a twelve (12) hour rolling average of feedrate of total chlorine and chloride in all feedstreams; (§63.1209(n)(4))
- 4) The permittee shall maintain records of the comprehensive performance test plans.
- 5) The permittee shall maintain records of the comprehensive performance test results.
- 6) The permittee shall maintain records of the calibration checks on the CMS equipment.
- 7) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-010

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Arsenic, Beryllium and Chromium (Low Volatility Metals)**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns

- 1) You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain arsenic, beryllium and chromium, both: [§63.1220(a)(4)]
 - a) Emissions in excess of 1.5×10^{-5} lbs combined emissions of cadmium and lead attributable to the hazardous waste per million Btu heat input from the hazardous waste; and [§63.1220(a)(4)(i)]
 - b) Emissions in excess of 54 µg/dscm, combined emissions, corrected to 7 percent oxygen. [§63.1220(a)(4)(ii)]
- 2) *Cement kilns with in-line kiln raw mills* [§63.1220(d)]
 - a) *General* - [§63.1220(d)(1)]
 - i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v), [§63.1220(d)(1)(i)]
 - ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]

b) *Emissions averaging.* You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures: [§63.1220(d)(2)]

i) *Averaging methodology.* You must calculate the time-weighted average emission concentration with the following equation: [§63.1220(d)(2)(i)]

$$C_{\text{total}} = \left[C_{\text{mill-off}} \times \left(\frac{T_{\text{mill-off}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right] + \left[C_{\text{mill-on}} \times \left(\frac{T_{\text{mill-on}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right]$$

Where:

C_{total} = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

$C_{\text{mill-off}}$ = average performance test concentration of regulated constituent with the raw mill off-line;

$C_{\text{mill-on}}$ = average performance test concentration of regulated constituent with the raw mill on-line;

$T_{\text{mill-off}}$ = time when kiln gases are not routed through the raw mill; and

$T_{\text{mill-on}}$ = time when kiln gases are routed through the raw mill.

ii) *Compliance.* [§63.1220(d)(2)(ii)]

(1) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by §63.1220(d)(2). [§63.1220(d)(2)(ii)(A)]

(2) Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance. [§63.1220(d)(2)(ii)(B)]

iii) *Notification.* [§63.1220(d)(2)(iii)]

(1) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). [§63.1220(d)(2)(iii)(A)]

(2) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis. [§63.1220(d)(2)(iii)(B)]

(3) You must document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time. [§63.1220(d)(2)(iii)(C)]

3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]

Alternate Standard Provision:

- 1) To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW021.
- 2) The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [§63.1206(b)(10)(viii)(B)]
- 3) If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0500-005 and EU0500-006, the permittee is not subject to this permit condition, except for the monitoring and recordkeeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- 1) You must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(n)]
 - a) *Maximum inlet temperature to dry particulate matter air pollution control device* - You must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages. [§63.1209(n)(1)]
 - b) *Maximum feedrate of semivolatile and low volatile metals.* [§63.1209(n)(2)]
 - i) *General* - You must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by §63.1209(n)(2)(vii). [§63.1209(n)(2)(i)]
 - ii) When complying with the emission standards under §63.1204, you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages. [§63.1209(n)(2)(ii)]
 - iii) *Cement kilns under §63.1220:* [§63.1209(n)(2)(iii)]
 - (1) When complying with the emission standards under §63.1220(a)(3)(i), you must establish 12-hour rolling average feedrate limits for semivolatile and low volatile metals as the thermal concentration of semivolatile metals or low volatile metals in all hazardous waste feedstreams. You must calculate hazardous waste thermal concentrations for semivolatile metals and low volatile metals for each run as the total mass feedrate of semivolatile metals or low volatile metals for all hazardous waste feedstreams divided by the total heat input rate for all hazardous waste feedstreams. The 12-hour rolling average feedrate limits for semivolatile metals and low volatile metals are the average of the test run averages, calculated on a thermal concentration basis, for all hazardous waste feeds. [§63.1209(n)(2)(iii)(A)]
 - (2) When complying with the emission standards under §63.1220(a)(3)(ii), you must establish 12-hour rolling average limits for the total feedrate of semivolatile and low volatile metals in all feedstreams as the average of the test run averages. [§63.1209(n)(2)(iii)(B)]
 - c) *Control device operating parameter limits (OPLs).* You must establish operating parameter limits on the particulate matter control device as specified by §63.1209(m)(1). [§63.1209(n)(3)]
 - d) *Maximum total chlorine and chloride feedrate* - You must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. [§63.1209(n)(4)]
 - e) *Maximum flue gas flowrate or production rate.* [§63.1209(n)(5)]
 - i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(n)(5)(i)]
 - ii) You must comply with this limit on a hourly rolling average basis. [§63.1209(n)(5)(ii)]
- 2) *Averaging periods* - The averaging periods specified in §63.1209 for operating parameters are not-to-exceed averaging periods. You may elect to use shorter averaging periods. For example, you may elect to use a 1-hour rolling average rather than the 12-hour rolling average specified in §63.1209(l)(1)(i) for mercury. [§63.1209(r)]

Test Methods:

You must use the following test methods to determine compliance with the emissions standards of this subpart: [§63.1208(b)]

- 1) *Arsenic, beryllium, and chromium* - You must use Method 29, provided in Appendix A to 40 CFR Part 60, to determine compliance with the emission standard for arsenic, beryllium, and chromium (combined). [§63.1208(b)(4)]

- 2) *Feedstream analytical methods* - You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]

Monitoring:

- 1) You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. [§63.1209(a)(5)]
- 2) The permittee shall comply with the comprehensive performance testing as specified in permit condition PW017.
- 3) The permittee shall monitor the inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average. [§63.1209(n)(1)]
- 4) The permittee shall monitor the feedrate for low volatile metals, combined, in all feedstreams on a twelve (12) hour rolling average. [§63.1209(n)(2)(i)(B)]
- 5) The permittee shall monitor the feedrate for low volatile metals, combined, in all pumpable feedstreams on a twelve (12) hour rolling average. [§63.1209(n)(2)(I)(C)]
- 6) If the alternate standard provision is utilized, the permittee shall monitor the feedrate of total chlorine and chloride in all feedstreams on a twelve (12) hour rolling average. [§63.1209(n)(4)]
- 7) The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average. [§63.1209(n)(5)(ii)]
- 8) Conduct of monitoring – The provisions of §63.8(b) apply. [§63.1209(e)]
- 9) Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: [§63.1209(f)]
 - a) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); [§63.1209(f)(1)]
 - b) §63.8(c)(4)(ii). The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of §63.8(c)(4)(ii); and [§63.1209(f)(2)]
- 10) **CMS Monitoring:**
 - a) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [§63.1209(b)(1)]
 - b) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]
 - i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. [§63.1209(b)(2)(i)]
 - ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
 - c) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]

- d) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
- e) *Calculation of rolling averages:* [§63.1209(b)(5)]
 - i) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
 - ii) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
 - iii) Calculation of rolling averages when the hazardous waste feed is cutoff: [§63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]
- 11) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive performance testing recordkeeping requirements as stated in permit condition PW017.
- 2) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - a) Inlet temperature to the primary dry metals emissions control device. [§63.1209(n)(1)]
 - b) Feedrate for low volatile metals, combined, in all feedstreams. [§63.1209(n)(2)(i)(B)]
 - c) Feedrate for low volatile metals, combined, in all pumpable feedstreams. [§63.1209(n)(2)(i)(C)]
 - d) The flue gas flowrate or production rate. [§63.1209(n)(5)(ii)]
- 3) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on a twelve (12) hour rolling average for the feedrate of total chlorine and chloride in all feedstreams; [§63.1209(n)(4)]
- 4) The permittee shall maintain records of the comprehensive performance test plans.
- 5) The permittee shall maintain records of the comprehensive performance test results.
- 6) The permittee shall maintain records on the calibration checks of the CMS equipment.
- 7) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-011

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Carbon Monoxide and Hydrocarbons**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns:

- 1) *For kilns equipped with a by-pass duct or midkiln gas sampling system* - You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain carbon monoxide and hydrocarbons, either: [§63.1220(a)(5)(i)]
 - i) Carbon monoxide in the by-pass duct or mid-kiln gas sampling system in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If you elect to comply with this carbon monoxide standard rather than the hydrocarbon standard under §63.1220(a)(5)(i)(B), you must also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons in the by-pass duct or mid-kiln gas sampling system do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane; or [§63.1220(a)(5)(i)(A)]
 - ii) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane. [§63.1220(a)(5)(i)(B)]
- 2) *Cement kilns with in-line kiln raw mills* [§63.1220(d)]

General - [§63.1220(d)(1)]

 - i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v), [§63.1220(d)(1)(i)]
 - ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
- 3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]

Alternate Standard Provision:

- 1) If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0500-005 and EU0500-006, the permittee is not subject to this permit condition, except for the monitoring and recordkeeping of the hazardous waste feed and the method of compliance.

- 2) Note: The monitoring and recordkeeping of the hazardous waste feed does not include the CEM requirements of HC, CO and O₂.

Test Methods:

You may use applicable test methods in EPA Publication SW-846, as incorporated by reference in paragraph (a) of this section, as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in §63.1208(b)(2)–(b)(6): [§63.1208(b)(7)]

Monitoring:

- 1) *Compliance with the carbon monoxide and hydrocarbon emission standards* - §63.1206(b)(6) applies to sources that elect to comply with the carbon monoxide and hydrocarbon emissions standards of this subpart by documenting continuous compliance with the carbon monoxide standard using a continuous emissions monitoring system and documenting compliance with the hydrocarbon standard during the destruction and removal efficiency (DRE) performance test or its equivalent. [§63.1206(b)(6)]
 - a) If a DRE test performed pursuant to §63.1207(c)(2) is acceptable as documentation of compliance with the DRE standard, you may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard. [§63.1206(b)(6)(i)]
 - b) If during this acceptable DRE test you did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, you must either: [§63.1206(b)(6)(ii)]
 - i) Perform, as part of the performance test, an “equivalent DRE test” to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which you operate the combustor as close as reasonably possible to the operating parameter limits that you established based on the initial DRE test. You must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or [§63.1206(b)(6)(ii)(A)]
 - ii) Perform a DRE test as part of the performance test. [§63.1206(b)(6)(ii)(B)]
- 2) *Continuous emissions monitoring systems (CEMS):* [§63.1209(a)]
 - a) You must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standard under this subpart. You must also use an oxygen CEMS to continuously correct the carbon monoxide or hydrocarbon level to 7 percent oxygen. [§63.1209(a)(1)(i)]
 - b) *Performance specifications* - You must install, calibrate, maintain, and continuously operate the CEMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, 40 CFR Part 60. [§63.1209(a)(2)]
 - c) *Carbon monoxide readings exceeding the span:* [§63.1209(a)(3)]
 - i) Except as provided by §63.1209(a)(3)(ii), if a carbon monoxide CEMS detects a response that results in a one-minute average at or above the 3,000 ppmv span level required by Performance Specification 4B in Appendix B, 40 CFR Part 60, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level. [§63.1209(a)(3)(i)]
 - ii) Carbon monoxide CEMS that use a span value of 10,000 ppmv when one-minute carbon monoxide levels are equal to or exceed 3,000 ppmv are not subject to §63.1209(a)(3)(i). Carbon monoxide CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment specifications when operating in the range of 3,000 ppmv to 10,000 ppmv that are provided by Performance Specification 4B for other carbon monoxide CEMS, except: [§63.1209(a)(3)(ii)]
 - (1) Calibration drift must be less than 300 ppmv; and [§63.1209(a)(3)(ii)(A)]
 - (2) Calibration error must be less than 500 ppmv. [§63.1209(a)(3)(ii)(B)]

- d) *Hydrocarbon readings exceeding the span:* [§63.1209(a)(4)]
- i) Except as provided by §63.1209(a)(4)(ii), if a hydrocarbon CEMS detects a response that results in a one-minute average at or above the 100 ppmv span level required by Performance Specification 8A in appendix B, part 60 of this chapter, the one-minute average must be recorded as 500 ppmv. The one-minute 500 ppmv value must be used for calculating the hourly rolling average HC level. [§63.1209(a)(4)(i)]
 - ii) Hydrocarbon CEMS that use a span value of 500 ppmv when one-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to §63.1209(a)(4)(i). Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by Performance Specification 8A for other hydrocarbon CEMS, except: [§63.1209(a)(4)(ii)]
 - (1) The zero and high-level calibration gas must have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively; [§63.1209(a)(4)(ii)(A)]
 - (2) The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv; [§63.1209(a)(4)(ii)(B)]
 - (3) The CEMS calibration must not differ by more than ± 15 ppmv after each 24-hour period of the seven day test at both zero and high levels; [§63.1209(a)(4)(ii)(C)]
 - (4) The calibration error must be no greater than 25 ppmv; and [§63.1209(a)(4)(ii)(D)]
 - (5) The zero level, mid-level, and high level calibration gas used to determine calibration error must have a hydrocarbon level of 0–200 ppmv, 150–200 ppmv, and 350–400 ppmv, respectively. [§63.1209(a)(4)(ii)(E)]
- 3) *Performance evaluations:* [§63.1209(d)]
- a) The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that you must conduct performance evaluations of components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207. [§63.1209(d)(1)]
 - b) You must comply with the quality assurance procedures for CEMS prescribed in the appendix to this subpart. [§63.1209(d)(2)]
- 4) *Conduct of monitoring* - The provisions of §63.8(b) apply. [§63.1209(e)]
- 5) *Operation and maintenance of continuous monitoring systems* - The provisions of §63.8(c) apply except: [§63.1209(f)]
- a) Section 63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of Section 63.8(c)(3); [§63.1209(f)(1)]
 - b) Section 63.8(c)(4)(ii). The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of Section 63.8(c)(4)(ii); and [§63.1209(f)(2)]
- 6) *Calculation of rolling averages:* [§63.1209(a)(6)]
- a) Calculation of rolling averages initially - The carbon monoxide or hydrocarbon CEMS must begin recording one-minute average values by 12:01 a.m. and hourly rolling average values by 1:01 a.m., when 60 one-minute values will be available for calculating the initial hourly rolling average for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute and hourly rolling average values within 60 seconds and 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), respectively, from the time at which compliance begins. [§63.1209(a)(6)(i)]
 - b) Calculation of rolling averages upon intermittent operations - You must ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average. [§63.1209(a)(6)(ii)]

- c) Calculation of rolling averages when the hazardous waste feed is cutoff: [§63.1209(a)(6)(iii)]
 - i) Except as provided by §63.1209(a)(6)(iii)(B), you must continue monitoring carbon monoxide and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if the emission levels exceed the standard. [§63.1209(a)(6)(iii)(A)]
 - ii) You are not subject to the CEMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(a)(6)(iii)(B)]
- 7) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive performance testing recordkeeping requirements as stated in permit condition PW017.
- 2) The permittee shall maintain records of the data recorded by the CEMs. The permittee shall maintain records on the following concentrations in 15 second intervals to calculate an average emission rate once every sixty (60) seconds: [§63.1209(f)(2)]
 - a) Carbon Monoxide;
 - b) Hydrocarbon; and
 - c) Oxygen
- 3) The permittee shall maintain records of all calibration records obtained during compliance with the quality assurance procedures provide in the appendix to this subpart and Performance Specifications 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, 40 CFR Part 60. [(§63.1209(a)(2))]
- 4) The permittee shall maintain records of the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, 40 CFR Part 60. [§63.1209(a)(2)]
- 5) The permittee shall maintain records of the quality assurance procedures for CEMS prescribed in Appendix to Subpart EEE of Part 63 – Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors. (§63.1209(d)(2))
- 6) The permittee shall maintain records of the comprehensive performance test plans.
- 7) The permittee shall maintain records of the comprehensive performance test results.
- 8) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-012

10 CSR 10-6.075

**Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart EEE**

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Hydrochloric Acid and Chlorine Gas**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns:

- 1) Hydrogen chloride and chlorine gas in excess of 120 parts per million by volume, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis, corrected to 7 percent oxygen. [§63.1220(a)(6)]
- 2) *Cement kilns with in-line kiln raw mills* [§63.1220(d)]
 - a) *General* - [§63.1220(d)(1)]
 - i) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v), [§63.1220(d)(1)(i)]
 - ii) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - iii) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
 - b) *Emissions averaging* - You may comply with the mercury, semivolatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures: [§63.1220(d)(2)]
 - i) *Averaging methodology*. You must calculate the time-weighted average emission concentration with the following equation: [§63.1220(d)(2)(i)]

$$C_{\text{total}} = \left[C_{\text{mill-off}} \times \left(\frac{T_{\text{mill-off}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right] + \left[C_{\text{mill-on}} \times \left(\frac{T_{\text{mill-on}}}{T_{\text{mill-off}} + T_{\text{mill-on}}} \right) \right]$$

Where:

C_{total} = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;

$C_{\text{mill-off}}$ = average performance test concentration of regulated constituent with the raw mill off-line;

$C_{\text{mill-on}}$ = average performance test concentration of regulated constituent with the raw mill on-line;

$T_{\text{mill-off}}$ = time when kiln gases are not routed through the raw mill; and

$T_{\text{mill-on}}$ = time when kiln gases are routed through the raw mill.

- ii) *Compliance*. [§63.1220(d)(2)(ii)]
 - (1) If you use this emission averaging provision, you must document in the operating record compliance with the emission standards on an annual basis by using the equation provided by §63.1220(d)(2). [§63.1220(d)(2)(ii)(A)]
 - (2) Compliance is based on one-year block averages beginning on the day you submit the initial notification of compliance. [§63.1220(d)(2)(ii)(B)]
- iii) *Notification*. [§63.1220(d)(2)(iii)]
 - (1) If you elect to document compliance with one or more emission standards using this emission averaging provision, you must notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). [§63.1220(d)(2)(iii)(A)]
 - (2) You must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis. [§63.1220(d)(2)(iii)(B)]
 - (3) You must document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time. [§63.1220(d)(2)(iii)(C)]

- 3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]

Alternate Standard Provisions:

- 1) To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW021.
- 2) The permittee must utilize a hazardous waste chlorine feedrate corresponding to an MTEC of seven hundred twenty thousand (720,000) µg/dscm or less; [(§63.1206(b)(10)(viii)(D)]
- 3) If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0500-005 and EU0500-006, the permittee is not subject to this permit condition, except for the monitoring and recordkeeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

You must comply with the hydrogen chloride and chlorine gas emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(o)]

- 1) *Feedrate of total chlorine and chloride:* [§63.1209(o)(1)]
You must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. [§63.1209(o)(1)(i)]
- 2) *Maximum flue gas flowrate or production rate:* [§63.1209(o)(2)]
 - a) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(o)(2)(i)]
 - b) You must comply with this limit on a hourly rolling average basis. [§63.1209(o)(2)(ii)]

Test Methods:

- 1) *Compliance with MACT standard* - To determine compliance with the emission standard for hydrogen chloride and chlorine gas (combined), you must use: [§63.1208(b)(5)(i)]
 - a) Method 26/26A as provided in Appendix A, 40 CFR Part 60; or [§63.1208(b)(5)(i)(A)]
 - b) Methods 320 or 321 as provided in Appendix A, 40 CFR Part 63, or [§63.1208(b)(5)(i)(B)]
 - c) ASTM D 6735-01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method to measure emissions of hydrogen chloride, and Method 26/26A to measure emissions of chlorine gas, provided that you follow the provisions in paragraphs (b)(5)(C)(1) through (6) of this section. ASTM D 6735-01 is available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106. [§63.1208(b)(5)(i)(C)]
 - i) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to Section 11.2.6 of ASTM Method D6735-01. [§63.1208(b)(5)(i)(C)(1)]
 - ii) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section: [§63.1208(b)(5)(i)(C)(2)]

$$RSD_a = (100) \text{Absolute Value} \left[\frac{C1_a - C2_a}{C1_a + C2_a} \right] \quad (\text{Eq. 1})$$

Where:

RSD_a = The test run relative standard deviation of sample pair a, percent.

C1_a and C2_a = The HCl concentrations, milligram/dry standard cubic meter (mg/dscm), from the paired samples.

- iii) You must calculate the test average relative standard deviation according to Equation 2 of this section: [§63.1208(b)(5)(i)(C)(3)]

$$RSD_{TA} = \frac{\sum_{a=1}^p RSD_a}{p} \quad (\text{Eq. 2})$$

Where:

RSD_{TA} = The test average relative standard deviation, percent.

RSD_a = The test run relative standard deviation for sample pair a.

p = The number of test runs, ≥ 3 .

- iv) If RSD_{TA} is greater than 20 percent, the data are invalid and the test must be repeated. [§63.1208(b)(5)(i)(C)(4)]
- v) The post-test analyte spike procedure of Section 11.2.7 of ASTM Method D6735–01 is conducted, and the percent recovery is calculated according to Section 12.6 of ASTM Method D6735–01. [§63.1208(b)(5)(i)(C)(5)]
- vi) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated. [§63.1208(b)(5)(i)(C)(6)]
- 2) *Feedstream analytical methods* - You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]

Monitoring:

- 1) You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. [§63.1209(a)(5)]
- 2) The permittee shall comply with the comprehensive performance testing as specified in permit condition PW017.
- 3) The permittee shall monitor the total feedrate of chlorine (organic and inorganic) in all feedstreams on a twelve (12) hour rolling average. [§63.1209(o)(1)]
- 4) The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average; [§63.1209(o)(2)]
- 5) Conduct of monitoring – The provisions of §63.8(b) apply. [§63.1209(e)]
- 6) Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: [§63.1209(f)]
- a) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); [§63.1209(f)(1)]
- b) §63.8(c)(4)(ii). The performance specifications for carbon monoxide, hydrocarbon, and oxygen CEMSs in subpart B, part 60 of this chapter that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of §63.8(c)(4)(ii); and [§63.1209(f)(2)]
- 7) **CMS Monitoring:**
- a) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [§63.1209(b)(1)]
- b) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]

- i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. [§63.1209(b)(2)(i)]
- ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
- c) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
- d) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
- e) *Calculation of rolling averages:* [§63.1209(b)(5)]
 - i) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
 - ii) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
 - iii) Calculation of rolling averages when the hazardous waste feed is cutoff: [§63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]
- 8) Conduct Monitoring -
- 9) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive performance testing recordkeeping requirements as stated in permit condition PW017.
- 2) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - a) The total feedrate of chlorine (organic and inorganic) in all feedstreams; [§63.1209(o)(1)]
 - b) The flue gas flowrate or production rate; [§63.1209(o)(2)]
- 3) The permittee shall maintain records of the comprehensive performance test plans.
- 4) The permittee shall maintain records of the comprehensive performance test results.

- 5) The permittee shall maintain records on the calibration checks of the CMS equipment.
- 6) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-013

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Particulate Matter (PM) and Opacity**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns:

- 1) You must not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain particulate matter, both: [§63.1220(a)(7)]
 - a) Emissions in excess of 0.028 gr/dscf corrected to 7 percent oxygen; and [§63.1220(a)(7)(i)]
 - b) Opacity greater than 20 percent, unless your source is equipped with a bag leak detection system under §63.1206I(8) or a particulate matter detection system under §63.1206I(9). [§63.1220(a)(7)(ii)]
- 2) *Cement kilns with in-line kiln raw mill:* [§63.1220(d)]

General – [§63.1220(d)(1)]

 - a) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v). [§63.1220(d)(1)(i)]
 - b) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
 - c) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
- 3) The emission limits provided by §63.1220(a) are presented with two significant figures. Although you must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]
- 4) When you comply with the particulate matter requirements of §63.1220(a)(7) or (b)(7), you are exempt from the New Source Performance Standard for particulate matter and opacity under §60.60 of 40 CFR Part 60. [§63.1220(h)]

Alternate Standard Provisions:

- 1) If the permittee selects the alternate emission standard provision for semivolatile and/or low volatile metals, the permittee must utilize a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; [§63.1206(b)(10)(viii)(B and/or C)]
- 2) If the kiln is not burning hazardous waste, the permittee may comply with EU0500-005 (40 CFR Part 63, Subpart LLL) or EU0500-013 (40 CFR Part 63, Subpart EEE).

Operating Parameters:

You must comply with the particulate matter emission standard by establishing and complying with the following operating parameter limits. You must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(m)]

- 1) *Maximum flue gas flowrate or production rate:* [§63.1209(m)(1)]
 - a) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(m)(1)(i)]
 - b) You must comply with this limit on a hourly rolling average basis. [§63.1209(m)(1)(ii)]

Test Methods:

You must use the following test methods to determine compliance with the emissions standards of this subpart: [§63.1208(b)]

- 1) *Particulate matter* – You must use Methods 5 or 5L, provided in Appendix A, 40 CFR Part 60, to demonstrate compliance with the emission standard for particulate matter. [§63.1208(b)(6)]
- 2) *Feedstream analytical methods* – You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]
- 3) *Opacity* – If you determine compliance with the opacity standard under the monitoring requirements of §§63.1209(a)(1)(iv) and (a)(1)(v), you must use Method 9, provided in Appendix A, 40 CFR Part 60. [§63.1208(b)(9)]

Monitoring:

- 1) *Particulate Matter*
 - a) You must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under this subpart. However, compliance with the requirements in this section to install, calibrate, maintain and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. [§63.1209(a)(1)(iii)]
 - b) *Petitions to use CEMS* – You may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under this section. [§63.1209(a)(5)]
 - c) You must comply with the quality assurance procedures for CEMS prescribed in Appendix to Subpart EEE of Part 63 – Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors. [§63.1209(d)(2)]
 - d) *Maximum flue gas flowrate or production rate:* [§63.1209(m)(2)]
 - i) As an indicator of gas residence time in the control device, you must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(m)(2)(i)]
 - ii) You must comply with this limit on a hourly rolling average basis. [§63.1209(m)(2)(ii)]
 - e) *Maximum ash federate* - Owners and operators of hazardous waste incinerators, solid fuel boilers, and liquid fuel boilers must establish a maximum ash feedrate limit as a 12-hour rolling average based on the average of the test run averages. This requirement is waived, however, if you comply with the particulate matter detection system requirements under §63.1206(c)(9). [§63.1209(m)(3)]
 - f) **CMS Monitoring:**
 - i) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [§63.1209(b)(1)]

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- ii) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]
 - (1) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. [§63.1209(b)(2)(i)]
 - (2) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
 - iii) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
 - iv) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
 - v) *Calculation of rolling averages:* [§63.1209(b)(5)]
 - (1) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]
 - (2) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]
 - (3) Calculation of rolling averages when the hazardous waste feed is cutoff: [§63.1209(b)(5)(iii)]
 - (a) Except as provided by §63.1209(b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]
 - (b) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]
 - 2) Bag leak detection system requirements. [§63.1206(c)(8)]
 - a) You must continuously operate a bag leak detection system that meets the specifications and requirements of paragraph §63.1206(c)(8)(ii) and you must comply with the corrective measures and notification requirements of paragraphs §63.1206(c)(8)(iii) and (iv). [§63.1206(c)(8)(i)(A)].
 - b) *Bag leak detection system specification and requirements.* [§63.1206(c)(8)(ii)]. —

- i) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligrams per actual cubic meter unless you demonstrate, under §63.1209(g)(1), that a higher detection limit would routinely detect particulate matter loadings during normal operations; [§63.1206(c)(8)(ii)(A)]
- ii) The bag leak detection system shall provide output of relative or absolute particulate matter loadings; [§63.1206(c)(8)(ii)(B)]
- iii) The bag leak detection system shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level; [§63.1206(c)(8)(ii)(C)]
- iv) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system; [§63.1206(c)(8)(ii)(D)]
- v) (E) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time; [§63.1206(c)(8)(ii)(E)]
- vi) Following initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under §63.1206(c)(7). You must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition; [§63.1206(c)(8)(ii)(F)]
- vii) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and [§63.1206(c)(8)(ii)(G)]
- viii) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors. [§63.1206(c)(8)(ii)(H)]
- c) *Bag leak detection system corrective measures requirements.* The operating and maintenance plan required by §63.1206(c)(7) must include a corrective measures plan that specifies the procedures you will follow in the case of a bag leak detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in this subpart. [§63.1206(c)(8)(iii)]
 - i) You must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and [§63.1206(c)(8)(iii)(A)]
 - ii) You must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include, but are not to be limited to, the following: [§63.1206(c)(8)(iii)(B)]
 - (1) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions; [§63.1206(c)(8)(iii)(B)(1)]
 - (2) Sealing off defective bags or filter media; [§63.1206(c)(8)(iii)(B)(2)]
 - (3) Replacing defective bags or filter media, or otherwise repairing the control device; [§63.1206(c)(8)(iii)(B)(3)]
 - (4) Sealing off a defective baghouse compartment; [§63.1206(c)(8)(iii)(B)(4)]
 - (5) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or [§63.1206(c)(8)(iii)(B)(5)]
 - (6) Shutting down the combustor. [§63.1206(c)(8)(iii)(B)(6)]
- d) *Excessive exceedances notification.* If you operate the combustor when the detector response exceeds the alarm set-point more than 5 percent of the time during any 6-month block time period, you must submit a notification to the Administrator within 30 days of the end of the 6-month block time period that describes the causes of the exceedances and the revisions to the design, operation, or maintenance of the

combustor or baghouse you are taking to minimize exceedances. To document compliance with this requirement: [§63.1206(c)(8)(iv)]

- i) You must keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken; [§63.1206(c)(8)(iv)(A)]
 - ii) You must record the percent of the operating time during each 6-month period that the alarm sounds; [§63.1206(c)(8)(iv)(B)]
 - iii) In calculating the operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted; and [§63.1206(c)(8)(iv)(C)]
 - iv) If corrective action is required, each alarm shall be counted as a minimum of 1 hour. [§63.1206(c)(8)(iv)(D)]
- 3) Performance specifications - You must install, calibrate, maintain, and continuously operate the CEMS in compliance with the quality assurance procedures provided in the Appendix to Subpart EEE of Part 63 and Performance Specifications 1 (opacity) in Appendix B, 40 CFR Part 60. [§63.1209(a)(2)]
 - 4) Conduct of monitoring – The provisions of §63.8(b) apply. [§63.1209(e)]
 - 5) Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: [§63.1209(f)]
 - a) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); [§63.1209(f)(1)]
 - b) Sections 63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to owners and operators of hazardous waste burning cement kilns. [§63.1209(f)(3)]
 - 6) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive performance testing recordkeeping requirements as stated in permit condition PW017.
- 2) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - a) The flue gas flowrate or production rate. [§63.1209(m)(2)]
- 3) The permittee shall maintain records of the data recorded by the COMs. [§63.1209(a)(1)(ii)]
- 4) The permittee shall maintain records of all calibration records obtained during compliance with the quality assurance procedures provide in the appendix to this subpart and Performance Specifications 1 (opacity) in Appendix B, 40 CFR Part 60. [§63.1209(a)(2)]
- 5) The permittee shall maintain records of the comprehensive performance test plans.
- 6) The permittee shall maintain records of the comprehensive performance test results.
- 7) The permittee shall maintain records of the CEMS correlation test plan.
- 8) The permittee shall maintain records of the calibration checks on the CMS equipment.
- 9) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) Submit the particulate matter CEMS correlation test plan to the Administrator for approval at least ninety (90) calendar days before the correlation test is scheduled to be conducted. [§63.1206(b)(8)(iii)(B)]
- 2) The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information. [§63.1206(b)(8)(iv)]

- 3) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 4) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

Permit Condition EU0500-014

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors
– Destruction and Removal Efficiency (DRE) – Principal Organic Hazardous Constituent
(POHC)**

Emission Limitation:

§63.1220 – Replacement Standards for hazardous waste burning cement kilns:

- 1) *Destruction and removal efficiency (DRE) standard*; [§63.1220(c)]
 - a) *99.99% DRE*. Except as provided in paragraph (c)(2) of this section, you must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under §63.1220(c)(3). You must calculate DRE for each POHC from the following equation:

[§63.1220(c)(1)]

$$DRE = \left[1 - \left(\frac{W_{out}}{W_{in}} \right) \right] \times 100\%$$

Where:

W_{in} = mass feedrate of one POHC in a waste feedstream; and

W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

- b) *99.9999% DRE*. If you burn the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31 of this chapter), you must achieve a DRE of 99.9999% for each POHC that you designate under §63.1220 (c)(3). You must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. You must use the equation in §63.1220(c)(1) calculate DRE for each POHC. In addition, you must notify the Administrator of your intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027. [§63.1220(c)(2)]
 - c) *Principal organic hazardous constituent (POHC)*: [§63.1220(c)(3)]
 - i) You must treat each POHC in the waste feed that you specify under §63.1220(c)(3)(ii) to the extent required by §63.1220(c)(1) and (c)(2). [§63.1220(c)(3)(i)]
 - ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information. [§63.1220(c)(3)(ii)]
- 2) *Cement kilns with in-line kiln raw mills*: [§63.1220(d)]

General: [§63.1220(d)(1)]

 - a) You must conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and you must establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(iv) and (d)(1)(v). [§63.1220(d)(1)(i)]

- b) You must document in the operating record each time you change from one mode of operation to the alternate mode and begin complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
- c) You must calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2).
- d) If your in-line kiln raw mill has dual stacks, you may assume that the dioxin/furan emission levels in the by-pass stack and the operating parameter limits determined during performance testing of the by-pass stack when the raw mill is off-line are the same as when the mill is on-line. [§63.1220(d)(1)(iii)]

Alternate Standard Provisions:

If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0500-005 and EU0500-006, the permittee is not subject to this permit condition, except for the monitoring and recordkeeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

To remain in compliance with the destruction and removal efficiency (DRE) standard, you must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated): [63.1209(j)]

- 1) *Minimum combustion chamber temperature:* [63.1209(j)(1)]
 - a) You must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. You must document the temperature measurement location in the test plan you submit under §63.1207(e); [63.1209(j)(1)(i)]
 - b) You must establish a minimum hourly rolling average limit as the average of the test run averages; [63.1209(j)(1)(ii)]
- 2) *Maximum flue gas flowrate or production rate:* [63.1209(j)(2)]
 - a) As an indicator of gas residence time in the control device, you must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that you document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [63.1209(j)(2)(i)]
 - b) You must comply with this limit on a hourly rolling average basis; [63.1209(j)(2)(ii)]
- 3) *Maximum hazardous waste feedrate:* [63.1209(j)(3)]
 - a) You must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. [63.1209(j)(3)(i)]
 - b) You must establish the limits as the average of the maximum hourly rolling averages for each run.
 - c) You must comply with the feedrate limit(s) on a hourly rolling average basis; [63.1209(j)(3)(ii)]
- 4) *Operation of waste firing system* - You must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. [63.1209(j)(4)]

Test Methods:

You must use the following test methods to determine compliance with the emissions standards of this subpart: [§63.1208(b)]

- 1) *Other test methods* - You may use applicable test methods in EPA Publication SW-846, as incorporated by reference in §63.1208(a), as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in §63.1208(b)(2)–(b)(6). [§63.1208(b)(7)]
- 2) *Feedstream analytical methods* - You may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is your responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. [§63.1208(b)(8)]

Monitoring:

- 1) Except as provided in paragraphs §63.1206(b)(7)(ii) and (b)(7)(iii): [§63.1206(b)(7)(i)]

- a) You must document compliance with the Destruction and Removal Efficiency (DRE) standard under this subpart only once provided that you do not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard. [§63.1206(b)(7)(i)(A)]
- b) You may use any DRE test data that documents that your source achieves the required level of DRE provided: [§63.1206(b)(7)(i)(B)]
 - i) You have not modified the design or operation of your source in a manner that could effect the ability of your source to achieve the DRE standard since the DRE test was performed; and, [§63.1206(b)(7)(i)(B)(1)]
 - ii) The DRE test data meet quality assurance objectives determined on a site-specific basis. [§63.1206(b)(7)(i)(B)(2)]
- 2) For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to §63.1207(c)(2), you must perform DRE testing during the initial comprehensive performance test. [§63.1206(b)(7)(iii)]
- 3) The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average. [§63.1209(j)(2)]
- 4) The permittee shall monitor the pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrates on an hourly rolling average. [§63.1209(j)(3)]
- 5) The permittee shall monitor the key parameters for the hazardous waste firing system. [§63.1209(j)(4)]
- 6) CMS Monitoring:
 - a) You must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this section. [§63.1209(b)(1)]
 - b) Except as specified in §63.1209(b)(2)(i) and (ii), you must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires you, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]
 - i) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. You must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. You must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. [§63.1209(b)(2)(i)]
 - ii) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If you operate a carbon injection system, the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once each calendar quarter at a frequency of approximately 120 days. [§63.1209(b)(2)(ii)]
 - c) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]
 - d) The span of the non-CEMS CMS detector must not be exceeded. You must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]
 - e) *Calculation of rolling averages:* [§63.1209(b)(5)]
 - i) *Calculation of rolling averages initially* - Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial

12-hour hourly rolling average) respectively, from the time at which compliance begins.

[\\$63.1209(b)(5)(i)]

- ii) Calculation of rolling averages upon intermittent operations. You must ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [\\$63.1209(b)(5)(ii)]
- iii) Calculation of rolling averages when the hazardous waste feed is cutoff: [\\$63.1209(b)(5)(iii)]
 - (1) Except as provided by §63.1209(b)(5)(iii)(B) of this section, you must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. You must not resume feeding hazardous waste if an operating parameter exceeds its limit. [\\$63.1209(b)(5)(iii)(A)]
 - (2) You are not subject to the CMS requirements of this subpart during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when you are not burning hazardous waste). [\\$63.1209(b)(5)(iii)(B)]
- f) The permittee shall monitor whether the hazardous waste is being fed to the kiln and whether the permittee is complying with the requirements of 40 CFR Part 63 Subpart LLL or EEE.

Recordkeeping:

- 1) The permittee shall comply with the comprehensive performance testing recordkeeping requirements as stated in permit condition PW017.
- 2) The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - a) The temperature in each combustion chamber; [\\$63.1209(j)(1)]
 - b) The flue gas flowrate or production rate; and [\\$63.1209(j)(2)]
 - c) The pumpable and total (i.e., pumpable and nonpumpable) hazardous waste fed. (\\$63.1209(j)(3))
- 3) The permittee shall maintain records on the key parameters for the hazardous waste firing system; (\\$63.1209(j)(4))
- 4) The permittee shall maintain records of the comprehensive performance test plans.
- 5) The permittee shall maintain records of the comprehensive performance test results.
- 6) The permittee shall maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR Part 63, Subpart LLL or EEE. Attachment C contains a log including these recordkeeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request.

Reporting:

- 1) The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW017.
- 2) Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW011.

EU0540 through EU0570 - Raw Blend Silos		
Emission Unit	Description	2007 EIQ Reference #
EU0540	Raw Blend Silo B-0701 Dust Collector B-0900	KP03A
EU0550	Raw Blend Silo B-0702 Dust Collector B-0900	
EU0560	Raw Blend Silo B-0703 Dust Collector B-0900	

EU0570	Raw Blend Silo B-0704 Dust Collector B-0900	
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Permit Condition EU0540-001 through EU0570-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348

Emission Limitation:

- 1) The owner or operator of each new or existing raw material storage bin shall not cause to be discharged any gases from these raw material storage bins which exhibit opacity in excess of ten percent. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material storage bins opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the raw material storage bin is operating at the highest load or capacity level reasonably expected to occur. The maximum six (6)-minute average opacity exhibited during the test period shall be used to determine whether the raw material storage bin is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
 [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0580 through EU0590 - Transfer Belt and Raw Blend Elevator		
Emission Unit	Description	2007 EIQ Reference #
EU0580	Transfer Belt KB-1200 Dust Collector B-0900	KP03B
EU0590	Raw Blend Elevator KB-1600 Dust Collector KB-2600	KP04A

Permit Condition EU0580-001 through EU0590-001
10 CSR 10-6.060
Construction Permits Required – Permit No. 1197-012A

Emission Limitation:

- 1) The permittee shall limit emissions of PM₁₀ from the transfer belt identified as EU0580 to less than 0.6 lbs/hour. [Construction Permit No. 1197-012A, Special Condition 1]
- 2) The permittee shall limit emissions of PM₁₀ from the raw blend elevator identified as EU0590 to less than 0.6 lbs/hr. [Construction Permit No. 1197-012A, Special Condition 2]
- 3) The permittee shall operate the dust collector at all times when the emission units are operational.

Monitoring/Recordkeeping:

- 1) The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the DNR employees may easily observe them. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

- 2) The permittee shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 3) The Permittee shall maintain an operating and maintenance log for the baghouse which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

Permit Condition EU0580-002 through EU0590-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each raw material, clinker, or finished product conveying system transfer point shall not cause to be discharged any gases from raw material, clinker, or finished product storage bin and conveying system transfer point which exhibit opacity in excess of ten percent. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product conveying system transfer point opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the raw material storage bin is operating at the highest load or capacity level reasonably expected to occur. The maximum six (6)-minute average opacity exhibited during the test period shall be used to determine whether the raw material storage bin is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]

- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
- a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
- b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
- c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0600 through EU0690		
- Air Slide, Kiln Feed Bin, Truck Loading, CKD Storage Silos, Drag Conveyors and Elevators		
Emission Unit	Description	2007 EIQ Reference #
EU0600	Air Slide KB-1808 Dust Collector KB-2600	KP04B
EU0610	Kiln Feed Bin KB-1700 Dust Collector KB-2600 & KB-1610	KP04C
EU0620	Truck Loading KB-3802 Drum Wetter for Particulate Control	KP07A
EU0630	CKD Storage Silo KB-3800 Dust Collector KB-3801	KP07P
EU0640	CKD Storage Silo KB-3900 Dust Collector KB-3901	KP07C
EU0650	Drag Conveyor KC-501 Dust Collector KC-0800	KP10
EU0660	Drag Conveyor KC-502 Dust Collector KC-0800	KP10
EU0670	Elevator KC-0601 Dust Collector KC-0800	KP11A
EU0680	Elevator KC-0602 Dust Collector KC-0800	KP11B
EU0690	Truck Loading from Clinker Emergency Dump Tank (W-6602)	KP12

Permit Condition EU0600-001 through EU0690-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
[§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0710 through EU0720 - Clinker Storage Pile Farms		
Emission Unit	Description	2007 EIQ Reference #
EU0710	Clinker Storage Pile Farm	KP14A-A
EU0720	Clinker Storage Pile Farm (Enclosed)	KP14A-B

Permit Condition EU0710-001 through EU0720-002 10 CSR 10-6.0070 New Source Performance Regulations 40 CFR Part 60, Subpart F Standards of Performance for Portland Cement Plants

Emission Limitation:

- 1) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater. [§60.62(c)]
- 2) These emission units are not subject to Permit Condition PW001.

Test Methods and Procedures:

Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.64(b)(4)]

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are

observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
 - d) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any other Method 9 test performed in accordance with this permit condition. (See Attachment A-2)

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0730 through EU0760 - Hopper Loading and Transfer Belts		
Emission Unit	Description	2007 EIQ Reference #
EU0730	Hopper Loading W-9200 Dust Collector W-9400	KP15A
EU0740	Transfer Belt W-7900 Dust Collector W-9400	KP15B
EU0750	Transfer Belt W-8200 Dust Collector W-8900	KP15C
EU0760	Transfer Belt KC-1000 Dust Collector W-7200	KP16A

Permit Condition EU0730-001 through EU0760-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
 [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0770 – Diverter Box KC-0603		
Emission Unit	Description	2007 EIQ Reference #
EU0770	Completely Enclosed Diverter Box KC-0603	KP16B

<p>Permit Condition EU0770-001</p> <p>10 CSR 10-6.075</p> <p>Maximum Achievable Control Technology Regulations</p> <p>40 CFR Part 63, Subpart LLL</p> <p>National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348</p>

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent. [§63.1348]
- 2) This emission unit is not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]

b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period.
 [§63.1349(b)(2)(ii)]

2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a).
 [§63.1350(j)]

2) The requirement to conduct Method 22 visible emissions monitoring under §63.1350 shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. “Totally enclosed conveying system transfer point” shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan.
 [§63.1350(a)(4)(v)]

Recordkeeping:

1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
 [§63.1355(a)]

2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]

a) All documentation supporting initial notifications and notifications of compliance status under §63.9;
 [§63.1355(b)(1)]

b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]

c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.
 [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0780 through EU0810 - Clinker Bin and Storage Silos		
Emission Unit	Description	2007 EIQ Reference #
EU0780	Clinker Bin W-6601 Dust Collector KC-0800	KP16C
EU0790	Storage Silo W-4508 (#4 Mill Off-Spec Clinker) Dust Collector KC-2560	KP17A
EU0800	Storage Silo W-4509 (#4 Mill Clinker) Dust Collector KC-2560	KP17B
EU0810	Storage Silo W-4510 (#5 Mill Clinker) Dust Collector KC-2560	KP17C

Permit Condition EU0780-001 through EU0810-001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
[§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0820 through EU0940		
- Transfer Belts, Clinker Storage Silos, Weigh Feeders and Bucket Elevators		
Emission Unit	Description	2007 EIQ Reference #
EU0820	Transfer Belt KC-2600 Dust Collector KC-2800	KP18A
EU0830	Transfer Belt KC-2620 Dust Collector KC-2800	KP18A
EU0840	Clinker Silo KC-2901 Dust Collector KC-2800	KP18B
EU0850	Clinker Silo KC-2902 Dust Collector KC-2800	KP18B
EU0860	Clinker Silo KC-2903 Dust Collector KC-2800	KP18B
EU0870	Transfer Belt KC-2630 Dust Collector KC-2800	KP18A
EU0880	Weigh Feeder KC-3002 Dust Collector KC-3300	KP19
EU0880A	Weigh Feeder KC-3001 Dust Collector KC-3300	KP19
EU0880B	Weigh Feeder KC-3003 Dust Collector KC-3300	KP19
EU0880C	Weigh Feeder KC-3004 Dust Collector KC-3300	KP19
EU0880D	Weigh Feeder KC-3006 Dust Collector KC-3300	KP19
EU0880E	Weigh Feeder KC-3007 Dust Collector KC-3300	KP19
EU0880F	Weigh Feeder KC-3009 Dust Collector KC-3300	KP19
EU0880G	Weigh Feeder KC-3005 Dust Collector KC-3300	KP19
EU0880H	Weigh Feeder KC-3008 Dust Collector KC-3300	KP19
EU0910	Transfer Belt KC-3200 Dust Collector KC-3300	KP19A
EU0920	Bucket Elevator KC-3400 Dust Collector KC-3300 Dust Collector KC-3450	KP19B
EU0930	Bucket Elevator KC-2550 Dust Collector KC-2570	KP21
EU0940	Transfer Belt KC-3600 Dust Collector KC-3450 & Dust Collector KC-2560	KP20

Permit Condition EU0820-001 through EU0940-001

10 CSR 10-6.060

Construction Permits Required — Construction Permit No. 0496-007A

Emission Limitation:

When operating the clinker conveyor system to fill the silos the two “filling” baghouses shall be in use. While operating the clinker conveyor system to withdraw from the silos the three “withdrawal” baghouses shall be in use. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources’ employees may easily observe them. Replacement filters for the baghouses and drum filters shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Construction Permit No. 0496-007A, Special Condition 1]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses and drum filters at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Construction Permit No. 0496-007A, Special Condition 2]

Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across each baghouse at least once every twenty-four hours. Attachment D, or an equivalent created by the permittee, must be used to certify compliance with this requirement. [Construction Permit No. 0496-007A, Special Condition 2]
- 2) The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause and correction actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements [Construction Permit No. 0496-007A, Special Condition 3]

Attachments E-1 and E-2, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

Reporting:

The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of this permit condition.

Permit Condition EU0820-002 through EU0940-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0950 – Truck Loading		
Emission Unit	Description	2007 EIQ Reference #
EU0950	Truck Loading – Clinker truck loading (clinker transfer)	KP23

<p style="text-align: center;">Permit Condition EU0950-001 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348</p>

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent. [§63.1348]
- 2) This emission unit is not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]

- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU0960 through EU0990 - Hopper Loading, Transfer Belts and Barge Loading		
Emission Unit	Description	2007 EIQ Reference #
EU0960	Hopper TL-5000 Dust Collector TL-5100	KP25A
EU0970	Transfer Belt TL-5300 Dust Collector TL-5100	KP25B
EU0980	Transfer Belt TL-5500 Dust Collector TL-5100	KP25C
EU0990	Barge Loading – Clinker Transfer Dust Collector TL-5600	KP26

Permit Condition EU0960-001 through EU0990-001
10 CSR 10-6.075
Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL
National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]

- a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
- b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
- c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1000 through EU1030 - Drag Conveyors and Bucket Elevators		
Emission Unit	Description	2007 EIQ Reference #
EU1000	#4 Mill Drag Conveyor F-8701 Dust Collector F-8703	FM1A
EU1010	#5 Mill Drag Conveyor F-12701 Dust Collector F-12703	FM1
EU1020	#4 Mill Bucket Elevator F-8702 Dust Collector F-102-00	FM1A-1
EU1030	#5 Mill Bucket Elevator F-8702 Dust Collector F-142-00	FM1-1

<p>Permit Condition EU1000-001 through EU1030-001</p> <p>10 CSR 10-6.400</p> <p>Restriction of Emission of Particulate Matter from Industrial Processes</p>
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Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 55.44 lbs/hr from EU1000 through EU1030.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

<p>Permit Condition EU1000-002 through EU1030-002</p> <p>10 CSR 10-6.075</p> <p>Maximum Achievable Control Technology Regulations</p> <p>40 CFR Part 63, Subpart LLL</p> <p>National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348</p>
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Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the

provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]

- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]

- c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1040 through EU1070 - Finish Mills and Mill Separators		
Emission Unit	Description	2007 EIQ Reference #
EU1040	Finish Mill #5 F-12900 Dust Collector F-142-00	FM2
EU1050	Finish Mill #4 F-8900 Dust Collector F-10200	FM2A
EU1060	Mill #5 Separator F-13500 Dust Collector F-143-00	FM3
EU1070	Mill #4 Separator F-9500 Dust Collector F-103-00	FM3A

<p align="center">Permit Condition EU1040-001 through EU1070-001 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes</p>

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 55.44 lbs/hr from EU1040 through EU1070.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

<p align="center">Permit Condition EU1040-002 through EU1070-002 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1347</p>

Emission Limitation:

- 1) The owner or operator of each new or existing raw mill or finish mill at a facility which is a major source subject to the provisions of this subpart shall not cause to be discharged from the mill sweep or air separator air pollution control devices of these affected sources any gases which exhibit opacity in excess of ten percent. [§63.1347]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the finish mill and separator system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The requirements under §63.1350(e) to conduct daily Method 22 testing shall not apply to any specific raw mill or finish mill equipped with a bag leak detection system (BLDS). If the owner or operator chooses to install a BLDS in lieu of conducting the daily visual emissions testing required under §63.1350(e), the requirements in §63.1350(m)(1) through (9) apply to each BLDS: [§63.1350(m)]
 - a) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. "Certify" shall mean that the instrument manufacturer has tested the instrument on gas streams having a range of particle size distributions and confirmed by means of valid filterable PM tests that the minimum detectable concentration limit is at or below 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. [§63.1350(m)(1)]
 - b) The sensor on the BLDS must provide output of relative PM emissions. [§63.1350(m)(2)]
 - c) The BLDS must have an alarm that will activate automatically when it detects a significant increase in relative PM emissions greater than a preset level. [§63.1350(m)(3)]
 - d) The presence of an alarm condition should be clearly apparent to facility operating personnel. [§63.1350(m)(4)]
 - e) For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm. [§63.1350(m)(5)]
 - f) All BLDS must be installed, operated, adjusted, and maintained so that they are based on the manufacturer's written specifications and recommendations. The EPA recommends that where appropriate, the standard operating procedures manual for each bag leak detection system include concepts from EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). [§63.1350(m)(6)]
 - g) The baseline output of the system must be established as follows: [§63.1350(m)(7)]
 - i) Adjust the range and the averaging period of the device; and [§63.1350(m)(7)(i)]
 - ii) Establish the alarm set points and the alarm delay time. [§63.1350(m)(7)(ii)]
 - h) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations and maintenance plan required by §63.1350(a). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 1 calendar year period unless a responsible official as defined in §63.2 certifies in writing to the Administrator that the fabric filter has been inspected and found to be in good operating condition. [§63.1350(m)(8)]
 - i) The owner or operator must maintain and operate the fabric filter such that the bag leak detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month block period. Each time the alarm activates, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions. If inspection of the fabric filter

demonstrates that no corrective actions are necessary, no alarm time will be counted. The owner or operator must continuously record the output from the BLDS during periods of normal operation. Normal operation does not include periods when the BLDS is being maintained or during startup, shutdown or malfunction. [§63.1350(m)(9)]

- 2) If the BLDS malfunctions, the permittee shall monitor opacity by conducting daily visual emissions observations according to §63.1350(e).

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1080 through EU1110 - Hoppers and Air Slides for Finish Mills (Cement Loadout)		
Emission Unit	Description	2007 EIQ Reference #
EU1080	Hopper for Finish Mill #4 (Surge Bin) Dust Collector F-103-00	FM3B1
EU1090	Air Slide for Finish Mill #4 Dust Collector F-103-00	FM3B1
EU1100	Hopper for Finish Mill #5 (Surge Bin) Dust Collector F-143-00	FM3B2
EU1110	Air Slide for Finish Mill #5 Dust Collector F-143-00	FM3B2

<p>Permit Condition EU1080-001 through EU1110-001</p> <p>10 CSR 10-6.400</p> <p>Restriction of Emission of Particulate Matter from Industrial Processes</p>
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Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 55.44 lbs/hr from EU1080 through EU1110.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU1080-002 through EU1110-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – §63.1348

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]

- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
- a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
- b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
- c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1120 through EU1400 - Cement Silos		
Emission Unit	Description	2007 EIQ Reference #
EU1120 - EU1210	Ten (10) New Cement Silos 37 - 46 Dust Collector F-153-01 (EU1120, EU1170, EU1180) Dust Collector F-153-03 (EU1130, EU1140, EU1150, EU1160, EU1190, EU1200 EU1210)	FM4A FM4B
EU1220 - EU1370	Sixteen (16) Old Cement Silos 21-36 Dust Collector L-3200	FM
EU1380 EU1400	Three (3) River Cement Silos 47-49 Dust Collector D-5400 (EU1380, EU1390) Dust Collector D-5500 (EU1400)	FM9 FM9A

Permit Condition EU1120-001 through EU1400-001
10 CSR 10-6.400
Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of:
- a) 50.59 lbs/hr from EU1120, EU1170 and EU1180;
- b) 62.22 lbs/hr from EU1130, EU1140, EU1150, EU1160, EU1190, EU1210; and

- c) 55.44 lbs/hr from EU1220 through 1400.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU1120-002 through EU1400-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
- a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
- b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]

- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1410 and EU1430 through EU1450 - Cement Transfer Belts and Barge Loading		
Emission Unit	Description	2007 EIQ Reference #
EU1410	Cement Transfer Belt D-4800 Dust Collector D-4500, D4503, D-5900	FM7
EU1430	Cement Transfer Belt D-4100 Dust Collector D-4303	FM5
EU1440	Cement Transfer Belt D-4200 Dust Collector D-4300	FM5A
EU01450	Cement Barge Loading TL-0800 Dust Collector TL-0900	FM10

<p>Permit Condition EU1410-001 and EU1430-001 through EU1450-001</p> <p>10 CSR 10-6.400</p> <p>Restriction of Emission of Particulate Matter from Industrial Processes</p>

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of:
 - a) 74.74 lbs/hr from EU1410;
 - b) 66.31 lbs/hr from EU1430 and EU1440; and
 - c) 77.59 lbs/hr from EU1450.

- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU1410-002 and EU1430-002 through EU1450-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]

- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1460 through EU1480 - Distribution Box, Elevator and Air Slide		
Emission Unit	Description	2007 EIQ Reference #
EU1460	Cement Load-out Distribution Box D-6900 Dust Collector D-5400 Dust Collector D-5500	FM8A
EU1470	Cement Load-out Elevator TL-0400 Dust Collector TL-0600	FM8B
EU1480	Cement Load-out Air Slide TL-0500 Dust Collector TL-0600	FM8B

Permit Condition EU1470-001 through EU1480-001 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of:
 - a) 77.59 lbs/hr from EU1460 and EU1470; and
 - b) 74.74 lbs/hr from EU1480.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

**Permit Condition EU1460-001 and
Permit Condition 1470-002 through EU1480-002**

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
 - a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
 - b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]
- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]

- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1490 through EU1521 - Cement Bins, Truck/Rail Loading, Raw Material Storage Silo and Plasticizer Bin		
Emission Unit	Description	2007 EIQ Reference #
EU1490	Cement Bins (Truck) Dust Collectors D-7000, LO-0130, LO-4401	FM11
EU1500	Truck/Rail Loading (Cement Loadout) Dust Collector LO-4800	FM12
EU1510	Raw Material Storage Silo W-4500 Dust Collector W-8400	FM12
EU1520	Plasticizer Bin W-4513 Dust Collector W-8400	FM13
EU1521	Hopper Barge Loadout (Cement Loadout) Dust Collector TL-7000	FM14

Permit Condition EU1490-001, EU1500-001 and EU1520-001 through EU1521-001
10 CSR 10-6.400
Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of:
 - a) 74.74 lbs/hr from EU1490;
 - b) 60.96 lbs/hr from EU1500;
 - c) 55.44 lbs/hr from EU1520; and

- d) 77.59 lbs/hr from EU1521.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU1490-002 through EU1521-002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

**National Emission Standards for Hazardous Air Pollutants From the Portland Cement
Manufacturing Industry – §63.1348**

Emission Limitation:

- 1) The owner or operator of each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system subject to the provisions of this subpart shall not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent.. [§63.1348]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

- 1) The owner or operator shall demonstrate initial compliance with the raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system opacity limit by conducting a test in accordance with Method 9 of Appendix A to 40 CFR Part 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be three-(3) hours (thirty (30) six (6) minute averages), except that the duration of the Method 9 performance test may be reduced to one-(1) hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply: [§63.1349(b)(2)]
- a) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
- b) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]
- 2) Performance tests required under §63.1349(b)(2) shall be repeated every five (5) years. [§63.1349(c)]

Monitoring:

- 1) The owner or operator subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
- 2) The owner or operator must conduct a monthly one (1) minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
- 3) If no visible emissions are observed in six (6) consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of testing from monthly to semi-annually 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 consecutive monthly tests. [§63.1350(a)(4)(ii)]

- 4) 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 (6) consecutive monthly tests. [§63.1350(a)(4)(iii)]
- 5) If visible emissions are observed during any Method 22 test, the owner or operator must conduct a six (6) minute test of opacity in accordance with Method 9 of Appendix A to 40 CFR Part 60. The Method 9 test must begin within one (1) hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]

Recordkeeping:

- 1) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
- 2) The owner or operator shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the owner or operator has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the owner or operator of an affected source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU1530 through EU1560 - Blend Tanks EU1570 through EU1580 Burn Tanks EU1590 Alternate Fuel Burn Tanks EU1600 – Mixing Tank		
Emission Unit	Description	2007 EIQ Reference #
EU1530 - EU1560	Six (6) Blend Tanks, 40,000 gallons each Carbon Canisters – Vapor Balance System	AF3
EU1570 & EU1580	Two (2) Burn Tanks, 150,000 gallons each Carbon Canisters – Vapor Balance System	AF3A
EU1590	Two (2) Alternate Fuel Burn Tanks, 150,000 gallons each Carbon Canisters – Vapor Balance System	AF3B
EU1600	Mixing Tank, 1,000 gallon Building Vent to Kiln	AF7

**Permit Condition EU1530-001 through EU1560-001,
Permit Condition EU1570-001 through EU1590-001
10 CSR 10-6.070**

**New Source Performance Regulations
40 CFR Part 60, Subpart Kb**

**Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum
Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced
after July 23, 1984**

Emission Limitation:

The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ containing a volatile organic liquid (VOL) that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with a closed vent system and control device meeting the following specifications: [§60.112b(a) & (a)(3)]

- 1) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b). [§60.112b(a)(3)(i)]
- 2) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. [§60.112b(a)(3)(ii)]

Testing and Procedures:

The owner or operator shall operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with §60.113b(c)(1), unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies. [§60.113b(c)(2)]

Monitoring:

- 1) The permittee shall continuously monitor the HC concentration in ppm from the exit of the carbon absorbers at the vent to the kiln in accordance with §60.115b(c)(2).
- 2) The permittee shall obtain a daily reading and recording of the HC concentration in ppm from the exit of the carbon absorbers at the vent to the kiln in accordance with §60.115b(c)(2). The carbon cannister control device shall be changed prior to break through.

Recordkeeping:

After installing control equipment in accordance with §60.112b(a)(3) (closed vent system and control device other than a flare), the owner or operator shall keep the following records. [§60.115b(c)]

- 1) A copy of the operating plan. [§60.115b(c)(1)]
- 2) A daily record of the continuously monitored HC concentration in ppm from the exit of the carbon absorbers at the vent to the kiln. [modified §60.115b(c)(2)]
- 3) A record of the carbon cannister changes as required by §60.115b(c)(2).

Reporting:

- 1) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. [§60.113b(c)(1)(i)]
- 2) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters). [§60.113b(c)(1)(ii)]

**Permit Condition EU1530-002 through EU1560-002,
Permit Condition EU1570-002 through EU1590-002
Permit Condition EU1600-001**

10 CSR 10-6.080

Emission Standards for Hazardous Air Pollutants

40 CFR Part 61, Subpart FF

National Emission Standard for Benzene Waste Operations

Standards:

1) *General* [§61.342]:

- a) Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 megagrams (Mg) (11 tons per year) as determined in §61.342(a) of this subpart shall manage and treat the facility waste as follows: [§61.342(c)]
- b) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste stream, even if the wastes are not discharged to an individual drain system, the owner or operator shall: [§61.342(c)(1)]
 - i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in §61.348. [§61.342(c)(1)(i)]
 - ii) Comply with the standards specified in §§61.343 through 61.347 for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with §61.342(c)(1)(i). [§61.342(c)(1)(ii)]

2) *Tanks* [§61.343]:

- a) Except as provided in §61.343(b) and in §61.351, the owner or operator must meet the standards in §61.343(a)(1) for each tank in which the waste stream is placed in accordance with §61.342(c)(1)(ii). The standards in §61.343 apply to the treatment and storage of the waste stream in a tank, including dewatering. [§61.343(a)]
 - i) The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. [§61.343(a)(1)]
 - (1) The fixed-roof shall meet the following requirements: [§61.343(a)(1)(i)]
 - (a) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h) of this subpart. [§61.343(a)(1)(i)(A)]
 - (b) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. [§61.343(a)(1)(i)(B)]
 - (c) If the cover and closed-vent system operate such that the tank is maintained at a pressure less than atmospheric pressure, then §61.343(a)(1)(i)(B) does not apply to any opening that meets all of the following conditions: [§61.343(a)(1)(i)(C)]
 - (i) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.343(a)(1)(i)(C)(1)]
 - (ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and [§61.343(a)(1)(i)(C)(2)]
 - (iii) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure. [§61.343(a)(1)(i)(C)(3)]
 - (2) The closed-vent system and control device shall be designed and operated in accordance with the requirements of §61.349 of this subpart. [§61.343(a)(1)(ii)]

- b) Each fixed-roof, seal, access door, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. [§61.343(c)]
 - c) Except as provided in §61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 45 calendar days after identification. [§61.343(d)]
- 3) *Closed Vent Systems and Control Devices [§61.349]:*
- a) For each closed-vent system and control device used to comply with standards in accordance with §61.343, the owner or operator shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements: [§61.349(a)]
 - i) The closed-vent system shall: [§61.349(a)(1)]
 - (1) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than five hundred parts per million by volume (500 ppmv) above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.349(a)(1)(i)]
 - (2) Vent systems that contain any bypass line that could divert the vent stream away from a control device used to comply with the provisions of this subpart shall install, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow away from the control device at least once every fifteen (15) minutes, except as provided in §61.349(a)(1)(ii)(B). [§61.349(a)(1)(ii)]
 - (a) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere. [§61.349(a)(1)(ii)(A)]
 - (b) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. [§61.349(a)(1)(ii)(B)]
 - (3) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [§61.349(a)(1)(iii)]
 - (4) For each closed-vent system complying with §61.349(a), one (1) or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials. [§61.349(a)(1)(iv)]
 - ii) The control device shall be designed and operated in accordance with the following conditions: The carbon adsorption system shall recover or control the organic emissions vented to it with an efficiency of ninety-five weight percent (95%) or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. [(§61.349(a)(2) and §61.349(a)(2)(ii)]
 - b) Each closed-vent system and control device used to comply with this subpart shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device. [§61.349(b)]
 - c) The permittee shall demonstrate that the carbon adsorption system recovers or controls the organic emissions vented to it with an efficiency of ninety-five weight percent (95%) or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater as specified in paragraph §61.349(a)(2) by using one of the following methods:
 - i) Engineering calculations in accordance with requirements specified in §61.356(f) of this subpart; or [§61.349(c)(1)]
 - ii) Performance tests conducted using the test methods and procedures that meet the requirements specified in §61.355. [§61.349(c)(2)]
 - d) The Administrator may request at any time an owner or operator demonstrate that a control device meets the applicable conditions specified in paragraph (a)(2) of this section by conducting a performance test using the test methods and procedures as required in §61.355. [§61.349(e)]

- e) Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. [§61.349(f)]
 - f) Except as provided in §61.350, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. [§61.349(g)]
 - g) The owner or operator of a control device that is used to comply with the provisions of §61.349 shall monitor the control device in accordance with §61.354(c). [§61.349(h)]
- 4) *Delay of Repair [§61.350]:*
- a) Delay of repair of facilities or units will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. [§61.350(a)]
 - b) Repair of such equipment shall occur before the end of the next facility or unit shutdown. [§61.350(b)]

Monitoring:

- 1) An owner or operator subject to the requirements in §61.349 shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the control device operation as specified in the following paragraphs, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator. The owner or operator shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the control device is operating properly. [§61.354(c)]
- 2) For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. [§61.354(d)]
- 3) Each owner or operator who uses a system for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the unit to ensure that it is less than atmospheric pressure. [§61.354(g)]

Recordkeeping:

- 1) An owner or operator using control equipment in accordance with §§61.343 through 61.347 shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the permittee shall maintain the control device records required by §61.356(f). [§61.356(d)]
- 2) An owner or operator using a closed-vent system and control device in accordance with §61.349 shall maintain the following records. The documentation shall be retained for the life of the control device. [§61.356(f)]
 - a) A statement signed and dated by the permittee certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur. [§61.356(f)(1)]
 - b) If engineering calculations are used to determine control device performance in accordance with §61.349(c), then a design analysis for the control device that includes for example: [§61.356(f)(2)]

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- i) Specifications, drawing, schematics, and piping and instrumentation diagrams prepared by the permittee, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters: [§61.356(f)(2)(i)]
 - (1) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. [§61.356(f)(2)(i)(G)]
 - ii) If performance tests are used to determine control device performance in accordance with §61.349(c): [§61.356(f)(3)]
 - (1) A description of how it is determined that the test is conducted when the waste management unit or treatment process is operating at the highest load or capacity level. This description shall include the estimated or design flow rate and organic content of each vent stream and definition of the acceptable operating ranges of key process and control parameter during the test program. [§61.356(f)(3)(i)]
 - (2) A description of the control device including the type of control device, control device manufacturer's name and model number, control device dimensions, capacity and construction materials. [§61.356(f)(3)(ii)]
 - (3) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency and planned analytical procedures for sample analysis. [§61.356(f)(3)(iii)]
 - (4) All test results. [§61.356(f)(3)(iv)]
 - 3) The permittee shall maintain a record for each visual inspection required by §§61.343 through 61.347 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken and the date the corrective action was completed. [§61.356(g)]
 - 4) The permittee shall maintain a record for each test of not detectable emissions required by §§61.343 through 61.347 and §61.349. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [§61.356(h)]
 - 5) For each control device, the permittee shall maintain documentation that includes the following information regarding the control device operation: [§61.356(j)]
 - a) Dates of startup and shutdown of the closed-vent system and control device. [§61.356(j)(1)]
 - b) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for selection of the parameter (or parameters). This documentation shall be kept for the life of the control device. [§61.356(j)(2)]
 - c) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when: [§61.356(j)(3)]
 - i) Any valve car-seal or closure mechanism required under §61.349(a)(1)(ii) is broken or the by-pass line valve position has changed. [§61.356(j)(3)(i)]
 - ii) The flow monitoring devices required under §61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required. [§61.356(j)(3)(ii)]

- d) If a carbon adsorber that is not regenerated directly on site in the control device is used, then the permittee shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time when the existing carbon in the control device is replaced with fresh carbon. [§61.356(j)(10)]
- 6) If a system is used for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air, then the permittee shall maintain records of the monitoring device and records of all periods during which the pressure in the unit is operated at a pressure that is equal to or greater than atmospheric pressure. [§61.356(m)]

Reporting:

- 1) Beginning three (3) months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart. [§61.357(d)(6)]
- 2) Beginning three (3) months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit a report quarterly to the Administrator that includes: [§61.357(d)(7)]
 - a) For a control device monitored in accordance with §61.354(c), each period of operation monitored during which any of the following conditions occur, as applicable to the control device: [§61.357(d)(7)(iv)]
 - i) Each three-(3) hour period of operation during which the average concentration of organics or the average concentration of benzene in the exhaust gases from a carbon adsorber is more than twenty percent (20%) greater than the design concentration level of organics or benzene in the exhaust gas. [§61.357(d)(7)(iv)(D)]
 - ii) Each occurrence when the carbon in a carbon adsorber system that is regenerated directly on site in the control device is not regenerated at the predetermined carbon bed regeneration time. : [§61.357(d)(7)(iv)(H)]
 - iii) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the pre-determined interval specified in §61.354(c). [§61.357(d)(7)(iv)(I)]
 - b) For a cover and closed-vent system monitored in accordance with §61.354(g), the permittee shall submit a report quarterly to the Administrator that identifies any period in which the pressure in the waste management unit is equal to or greater than atmospheric pressure. [§61.357(d)(7)(v)]
- 3) Beginning one (1) year after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit annually to the Administrator a report that summarizes all inspections required by §§61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken. [§61.357(d)(8)]

EU1610 – Filter Cleaning/Pail Loading		
Emission Unit	Description	2007 EIQ Reference #
EU1610	Filter Cleaning/Pail Loading –Filter Cleaning Table Vented to Kiln	AF8

Permit Condition EU1610-001
10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 0693-009

Emission Limitation:

The number of filters cleaned at this facility shall not exceed thirty five thousand (35,000) in any consecutive twelve (12) month period. [Construction Permit 0693-009, Special Condition 1]

Recordkeeping:

- 1) The Permittee must keep monthly records detailing the number of filters cleaned that month and the previous 12-month total. Records for the most recent five (5) years must be kept at the installation. [Construction Permit 0693-009, Modified Special Condition 2]
- 2) Copies of all required records and of the permit shall be kept at the plant and shall be made available immediately upon verbal request to Department of Natural Resources personnel. [Construction Permit 0693-009, Special Condition 4]

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of each month if the twelve (12) month cumulative records (condition number 2 of Construction Permit 0693-009) show that the permittee exceeded the limitation of condition number 1 of Construction Permit 0693-009. [Construction Permit 0693-009, Special Condition 3]

EU1620 through EU1630 – Backup Generators		
Emission Unit	Description	2007 EIQ Reference #
EU1620	Back Up Generator – Diesel Fuel – 470 kW	AF8
EU1630	Back Up Generator – Diesel Fuel – 500 kW	

Permit Condition EU1620-001 through EU1630-001 10 CSR 10-6.260 Restriction of Emissions of Sulfur Compounds ⁴

Emission Limitation:

- 1) Emissions from these source operations shall not contain more than 500 parts per million by volume (ppmv) of sulfur dioxide or more that 35 milligrams per cubic meter (mg/m³) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Operational Limitation:

The emission units shall be limited to burning fuel oil with a sulfur content of no more than 0.5% sulfur by weight. The fuel oils known to be less than 0.5% by weight sulfur per Chapter 414 RSMo, Section 414.032, ASTM D396-Table 1 and ASTM D975-Table 1, are fuel oil No. 1 and No. 2 and diesel fuel oil Grade Low Sulfur No. 1-D, Grade Low Sulfur No. 2-D. However, these units are not limited to the known fuel oils listed above, but are limited to fuel oils based solely on having a percent sulfur by weight content of 0.5% or less.

Monitoring/Recordkeeping:

The permittee shall maintain records of the fuel type used verifying a sulfur content less than 0.5% by weight. Purchase receipts, analyzed samples or certifications that verify the fuel type as a grade level with a sulfur content less than 0.5% by weight will be acceptable.

⁴ 10 CSR 10-6.260(3)(B) is a state-only requirement

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU1640 – Raw Material Storage Piles		
Emission Unit	Description	2007 EIQ Reference #
EU1640	Diaspore Storage Pile	RM15
	Tripoli Storage Pile	RM16
	Gypsum Storage Pile	RM23
	Millscale Storage Pile	RM24
	Slag Storage Pile	TH03 & 06

Permit Condition EU1640-001
10 CSR 10-6.070
New Source Performance Regulations
40 CFR Part 60 Subpart F
Standards of Performance for Portland Cement Plants

Emission Limitation:

- 1) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater. [§60.62(c)]
- 2) These emission units are not subject to Permit Condition PW001.

Test Methods and Procedures:

Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.64(b)(4)]

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
 - d) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

- 3) The permittee shall conduct an annual opacity measurement on the emission units by U.S. EPA Test Method 9 with a certified Method 9 observer using the test methods and procedures described above

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A-1), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any other Method 9 test performed in accordance with this permit condition. (See Attachment A-2)

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements as applicable. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.045 Open Burning Restrictions

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
 - ii) Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
 - iii) St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
 - iv) St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - b) Yard waste, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;
 - ii) Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
 - iii) St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
 - (1) A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
 - (2) A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
 - (3) The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - (4) In each instance, the twenty-one (21)-day burning period shall be determined by the Director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the Department Director; and

- iv) St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the Director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Buzzi Unicem USA, Inc. – Cape Girardeau Plant may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Installation Name fails to comply with the provisions or any condition of the open burning permit.
 - i) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the Director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the Director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245 60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005 shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245 60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the Director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;

- i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
 - 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the Director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
 - 4) Nothing in this rule shall be construed to limit the authority of the Director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
 - 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.

- 3) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the Director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the Director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the Director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The Director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The Director may specify testing methods to be used in accordance with good professional practice. The Director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The Director may conduct tests of emissions of air contaminants from any source. Upon request of the Director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The Director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.090 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the Department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the Department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the Department. Certain business entities that meet the requirements for state-approved exemption status must allow the Department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
 - 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82.*

The annual reporting requirements of Part 82 for destruction of ozone depleting substances apply to Buzzi.

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the Director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

- a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
- b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to

the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

The installation has a couple of operating scenarios in regards to the cement kiln.

- 1) The installation has an in-line raw mill which allows the installation to operate the kiln with either the raw mill on or off. The permit conditions for the cement kiln and raw mill have taken these operating scenarios into consideration. The following permit conditions give the specific requirements necessary when the kiln is operating with or without the raw mill: EU0500-005, EU0500-006, EU0500-007, EU0500-008, EU0500-009, EU0500-010, EU0500-011, EU0500-012, EU0500-13 and EU0500-14.
- 2) The installation has the alternative of complying with 40 CFR Part 63, Subpart LLL or 40 CFR Part 63, Subpart EEE, when the cement kiln is not burning hazardous waste. The following permit conditions have alternate standard provisions with specific monitoring and recordkeeping requirements which allow the installation the alternative of selecting the method of compliance: EU0500-005, EU0500-006, EU0500-007, EU0500-008, EU0500-009, EU0500-010, EU0500-011, EU0500-012, EU0500-013 and EU0500-014.

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and

- b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The application requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

At the time of permit issuance, the following rules do not apply to Buzzi Unicem USA:

Citation	Regulation Description
10 CSR 10-3.060	Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating
10 CSR 10-6.070 40 CFR Part 60, Subpart D	New Source Performance Regulations Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971
10 CSR 10-6.070 40 CFR Part 60, Subpart Db	New Source Performance Regulations Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
10 CSR 10-6.070 40 CFR Part 60, Subpart Dc	New Source Performance Regulations Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
10 CSR 10-6.070 40 CFR Part 60, Subpart E	New Source Performance Regulations Standards of Performance for Incinerators
10 CSR 10-6.070 40 CFR Part 60, Subpart Ea	New Source Performance Regulations Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994
10 CSR 10-6.070 40 CFR Part 60, Subpart Eb	New Source Performance Regulations Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996
10 CSR 10-6.070 40 CFR Part 60, Subpart Ec	New Source Performance Regulations Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996
10 CSR 10-6.070 40 CFR Part 60, Subpart K	New Source Performance Regulations Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction or Modification Commenced After June 11, 1973, and Prior to May 19, 1978
10 CSR 10-6.070 40 CFR Part 60, Subpart Ka	New Source Performance Regulations Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
10 CSR 10-6.070 40 CFR Part 60, Subpart WWW	New Source Performance Regulations Standards of Performance for Municipal Solid Waste Landfills
10 CSR 10-6.075 40 CFR Part 63, Subpart T	Maximum Achievable Control Technology Regulations National Emission Standards for Halogenated Solvent Cleaning
10 CSR 10-6.075 40 CFR Part 63, Subpart DD	Maximum Achievable Control Technology Regulations National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations
10 CSR 10-6.075 40 CFR Part 63, Subpart ZZZ	Maximum Achievable Control Technology Regulations National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
10 CSR 10-6.080 40 CFR Part 61, Subpart V	Emission Standards for Hazardous Air Pollutants National Emission Standard for Equipment Leaks (Fugitive Emission Sources)
10 CSR 10-6.160	Medical Waste and Solid Waste Incinerators
10 CSR 10-6.190	Sewage Sludge and Industrial Waste Incinerators
10 CSR 10-6.200	Hospital, Medical, Infectious Waste Incinerators
10 CSR 10-6.310	Restriction of Emissions from Municipal Solid Waste Landfills

10 CSR 10-6.065(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by W. Sreven Leus, Jr., Plant Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:

- a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;
or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;
or
- 5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

Attachment A-2

**10 CSR 10-6.220 Compliance Demonstration
 Method 9 Visual Determination of Opacity**

This attachment or an equivalent may be used to help meet the visible emissions recordkeeping requirements.

Method 9 Opacity Emissions Observation	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plum (Check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation?

 YES

 NO

 Signature of Observer

Attachment E-1
Baghouse Operating and Maintenance Log

Date: _____

Incident of Malfunction: _____

Impact on Emissions: _____

Duration of Event: _____

Probable Cause: _____

Corrective Actions: _____

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received October 24, 2005;
- 2) 2007 Emissions Inventory Questionnaire, received April 11, 2008;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
Section 13.2.4 Aggregate Handling and Storage Piles
Section 11.6 Portland Cement Manufacturing
Section 11.12 Concrete Batching
- 4) Construction Permit Number: 1277-007;
- 5) EPA PSD Permit February 1, 1978;
- 6) Construction Permit Number: 0483-009A to 0483-011A;
- 7) Construction Permit Number: 0496-007;
- 8) Construction Permit Number: 0697-004;
- 9) Construction Permit Number: 1197-012;
- 10) Construction Permit Number: 042002-002;
- 11) Construction Permit Number: 042006-002;
- 12) Construction Permit Number: 112006-012;
- 13) September 24, 1990, Settlement Agreement between Missouri Department of Natural Resources, Attorney General and Lone Star Industries, Inc. and
- 14) September 7, 1996, Opacity Limitation for "In-line" Portland Cement Plants Memorandum from John Rasnic.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*

The fuel burning equipment at Buzzi Unicem USA are direct heating units. Therefore, 10 CSR10-3.060 is not included in the operating permit.

10 CSR 10-6.200, *Hospital, Medical, Infectious Waste Incinerators*

Cement kilns firing hospital waste and/or medical/infectious waste are not subject to this rule. Therefore, 10 CSR 10-6.200 is not included in the operating permit.

10 CSR 10-6.310, *Restriction of Emissions from Municipal Solid Waste Landfills*

This regulation applies to municipal solid waste landfills where household waste is placed. Presently the landfill only accepts cement kiln dust (CKD). The landfill has not accepted household waste. Therefore, 10 CSR 10-6.310 is not included in the operating permit.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

1) EPA PSD Permit February 1, 1978

The special conditions have already been complied with by the installation or are part of the NSPS, therefore this construction permit was not included in the operating permit.

2) Construction Permit Number: 0691-010

Special Condition #4 is written as follows:

“No more than four (4) tires per minute shall be processed through the Portland cement kiln until stack test results can be evaluated and a new limit set by the Air Pollution Control Program. The new limit must be obtained in writing from the Air Pollution Control Program and shall be attached to the permit upon receipt by Lone Star.”

The installation conducted a stack test in June of 1992, from which a new limit on the feedrate of the tires was established. The new tire feedrate established via the stack test is 4200 lb/hr or 2.1 tons/hr.

Special Condition 5 is written as follows:

“Records shall be kept on-site for a period of at least two (2) years of the number of tires burned and the amounts of alternate fuels burned in the Portland cement kiln, ...”

With the operating permit program, the record retention period has been extended to five (5) years, therefore changes were made in the record retention period for this construction permit

3) Construction Permit Number: 0392-001

Special Condition 8 deals with performance testing criteria. Since the installation has already completed the performance testing requirements for Construction Permit Number: 0392-001, the conditions were not included in the operating permit.

4) Construction Permit Number: 0693-009

Special Condition 2 is written as follows:

“...Records for the most recent 24-month period must be kept at the facility.”

Recordkeeping specified in the Title V requires the source to retain all records of all required monitoring data and support information for 5 years. Special Condition 2 of this permit allows for 2 years of records. To be in compliance with the special condition 2 of this permit and Title V record retention period, the source will keep the records for 5 years.

5) Construction Permit Number: 0697-004

The only special condition listed in this construction permit is the required performance testing under 40 CFR Part 60, Subpart OOO. Since the installation has already completed this testing, this construction permit was not included in the operating permit.

6) Construction Permit Number: 1197-012

The requirements from this construction permit were replaced by construction permit number: 1197-012A. Therefore, the requirements of construction permit number: 1197-012 were not included in the operating permit.

7) Construction Permit Number: 042006-002 and 112006-012;

The special condition listed in this construction permit is the performance testing on the existing kiln system (KP-2A) after installation of the oxygen injection system to quantify the emission rates of Sulfur oxides, Nitrogen oxides and Volatile organic compounds from the kiln system. Since the installation has already completed this testing, this construction permit was not included in the operating permit.

8) Construction Permit Number: 112006-012;

The special condition listed in this construction permit is the performance testing on the existing kiln system (KP-2A) after installation of the oxygen injection system and increase kiln operating rate due to oxygen injection into the kiln and calciner to quantify the emission rates of Sulfur oxides , Nitrogen oxides and Volatile organic compounds from the kiln system. Since the installation has already completed this testing, this construction permit was not included in the operating permit.

NSPS Applicability

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR Part 60, Subpart E – *Standards of Performance for Incinerators*

40 CFR Part 60, Subpart Ea – *Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994*

40 CFR Part 60, Subpart Eb – *Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996*

40 CFR Part 60, Subpart Ec – *Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996*

These regulations apply to any incinerator used in the process of burning solid, municipal, hospital, medical or infectious waste. Solid waste is defined as: “refuse, more than fifty percent (50%) of which is municipal type waste consisting of a mixture of paper, wood yard wastes, food wastes, plastics, leather, rubber and other combustibles and noncombustible materials such as glass and rock.”

The material combusted at Buzzi Unicem, Inc. – Cape Girardeau Plant does not meet the definition of solid, municipal, hospital, medical or infectious waste, therefore this regulation was not included in the operating permit.

40 CFR Part 60, Subpart F – *Standards of Performance for Portland Cement Plants*

This standard is applicable to the following affected facilities in Portland cement plants that commences construction or modification after August 17, 1971: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.

According to 40 CFR Part 63, Subpart LLL, §63.1356 an exemption from new source performance standards is given. Any affected source subject to the provisions of 40 CFR Part 63, Subpart LLL, is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, Subpart F, except for:

Kilns and in-line kiln/raw mills, as applicable under 40 CFR 60.60(b), located at areas sources are subject to PM and opacity limits and associated reporting and recordkeeping, under 40 CFR Part 60, Subpart F.

Greenfield raw material dryers, as applicable under 40 CFR 60.60(b) located at area sources are subject to opacity limits and associated reporting and recordkeeping under 40 CFR Part 60, Subpart F.

Since the installation is a major source according to 40 CFR Part 63, Subpart LLL, the installation is exempted from the new source performance standard contained in 40 CFR Part 60, Subpart F when the installation begins complying with 40 CFR Part 63, Subpart LLL.

EU0710 and EU0720 – Clinker Storage Pile Farms – The installation has two (2) main areas where clinker storage piles are maintained. Clinker is only stored outside when no available space exists inside for storage. The same is true for enclosed storage piles. The installation was unable to quantify the number of storage piles because the number of piles in each category is determined by need and can vary from year to year depending on market conditions. It was therefore determined that the clinker storage piles would be identified by farms under single emission unit numbers and the installation would be required to demonstrate compliance for the varying number of piles from year to year.

40 CFR Part 60, Subpart K – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978*

40 CFR Part 60, Subpart Ka – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced After May 18, 1978, and Prior to July 23, 1984*

40 CFR Part 60, Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*

The following storage tanks were installed prior to June 11, 1973 or are below the level of reporting significance (Subpart K – 40,000 Gallons, Subpart Ka – 40,000 Gallons and Subpart Kb – 19,800 Gallons) and therefore are not subject to 40 CFR Part 60 Subpart K, Ka or Kb:

Description	Capacity (Gallons)
Storage Tanks #2 and 5 – Oil Tanks – Quarry Garage	300 (each)
Storage Tanks #3 and 4 – Oil Tanks – Quarry Garage	150 (each)
Storage Tanks #6a and 6b – Oil Tanks – Quarry Garage	200 each
Storage Tank #7 – Diesel Tank – Quarry Garage	8,000
Storage Tank #8 – Diesel Tank – Quarry Garage	10,000
Storage Tank #9 – Gasoline Tank – Quarry Garage	550
Storage Tank #10 – Used Oil Tank – Quarry Garage	1,000
Storage Tank #11 – Diesel Tank – Additive Crusher	300
Storage Tank #12 – Diesel Tank – River Unloading Dock	300
Storage Tank #13 – Diesel Tank – Spray Pond Pumps	150
Storage Tank #15 – Diesel Tank – Courtyard	560
Storage Tank #16 – Diesel Tank – Plant Emergency Generator	200
Storage Tank #17 – Kerosene Tank – Plant Parking Lot	550
Storage Tank #17A – Kerosene Tank – Plant Parking Lot	300
Storage Tank #18 – Diesel Tank – Plant Parking Lot	300
Storage Tank #19 – Gasoline Tank – Plant Parking Lot	300
Storage Tank #27 – Diesel Tank – Waste Fuel Area	300
Storage Tank #28 – Diesel Tank – Elec. Room – 17	500
Storage Tank #32 - Alternate Fuels Mixing Tank	1,000

MS10-Diesel Tanks (2) (20,000 Gallons) (Storage Tank #14a and 14b) were installed in 2005 and are not subject to the requirements of 40 CFR Part 60, Subpart Ka, due to Diesel not meeting the definition of petroleum liquids. According to 40 CFR Part 60, Subpart Ka, petroleum liquids is defined as:

“Petroleum liquids means petroleum, condensate and any finished or intermediate products manufactured in a petroleum refinery but does not mean Nos. 2 through 6 fuel oils as specified in ASTM D396-78, gas turbine fuel oils Nos. 2-GT through 4-GT as specified in ASTM D2880-78, gas turbine fuel oils Nos. 2-GT through 4-GT as specified in ASTM D2880-78, or diesel fuel oils Nos. 2-D and 4-D as specified in ASTM D975-78.”

40 CFR Part 60, *Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*

§60.113b(c)(2) states as follows: Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with §60.113b(c)(1), unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

According to the operating permit application on EU1530 through EU1580, the parameter being monitored is the HC concentration in ppm from the exit of the carbon absorbers at the vent to the kiln. The sampling frequency is listed as continuous in the operating permit application however; the monitor does not contain a continuous print-out of the monitored values. The monitor’s valve is read and recorded daily – not continuously. Therefore, the actual parameters being monitored were included in the operating permit with a daily recordkeeping requirement rather than the standard wording from the New Source Performance Standard.

40 CFR Part 60, *Subpart Y – Standards of Performance for Coal Preparation Plants*

This standard is applicable to any of the following affected facilities in coal preparation plants which process more than 200 tons per day and commenced construction or modification after October 24, 1974: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems and coal transfer and loading systems. The coal processing and conveying equipment are subject to the requirements of this standard.

40 CFR Part 60, *Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants*

This standard is applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants that commences construction or modification after August 31, 1983: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station.

According to §60.670(b), “An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.”

The following quarry operations were installed prior to August 31, 1983 are not subject to this standard:

Quarry Operation	Installation Date
Hopper – Vibrating Feeder (A-1601)	1978
Primary Crusher (A-1700)	1978
Primary Crusher Transfer Belt (A-1900)	1978
Primary Crusher Transfer Belt (A-2000)	1978
Chute – Splitter Box (A-2002)	1978
Transfer Belt From Crusher To Piles (A-2500)	1978
Transfer Belt From Crusher To Piles (A-2600)	1978
Transfer Belt to Piles #1 (A-3300)	1978
Transfer Belt to Piles #4 (A-3400)	1978
Hopper (W-4600)	1978

The other quarry operations installed after August 31, 1983, which are prior to any facility processes that are subject to the provisions of subparts F, are subject to the requirements of this standard. Since the rest of installation is either subject to the provisions of subpart F or follows in the plant process a facility subject to the provision of subpart F, this requirement was not included in the operating permit for those processes.

40 CFR Part 60, *Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills*

This regulation applies to municipal solid waste landfills where household waste is placed. Presently the landfill only accepts cement kiln dust (CKD). The landfill has monitoring wells and the wells are monitored yearly as a condition of the RCRA permit. The landfill has not accepted household waste, therefore this regulation was not included in the operating permit.

MACT Applicability

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

40 CFR Part 63, Subpart T – *National Emission Standards for Halogenated Solvent Cleaning*

The provisions of this subpart apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than five percent (5%) by weight, as a cleaning and/or drying agent. Wipe cleaning activities, such as using a rag containing halogenated solvent are not covered under the provisions of this subpart.

Buzzi Unicem, Inc. - Cape Girardeau Plant uses mineral spirits or a citrus based solvent in four (4) parts washers (thirty-five (35) gallons). Therefore, the installation does not use a regulated solvent and the requirements were not included in the operating permit.

40 CFR Part 63, Subpart DD – *National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations*

The installation is not subject to 40 CFR Part 63, Subpart DD, due to the exemption stated in §63.683(c)(1). According to §63.683(c)(1):

“An off-site material management unit is exempted from the requirements specified in §63.683(b), if the unit is also subject to another subpart under 40 CFR Part 61 or 40 CFR Part 63, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the unit in compliance with the provisions specified in the other applicable subpart.”

According to §63.680(b)(2)(vi), the following materials are not off-site materials:

“Waste that is generated by or transferred from units complying with all applicable requirements specified by 61.342(b) under 40 CFR 61 subpart FF – National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year.”

The off-site waste is placed in hazardous waste storage tanks complying with 40 CFR Part 61, Subpart FF, therefore when the waste leaves these storage tanks or is "transferred from" these units complying with 40 CFR Part 61, Subpart FF, the waste is no longer off-site waste.

According to the July 1, 1996 Preamble:

“Some NESHAP already regulate air emissions from the off-site management of certain wastes containing HAP. To avoid duplication of requirements in these cases, the Off-Site Waste and Recovery Operations NESHAP does not apply to waste management units that either receive waste from units complying with all applicable regulations under the HON, or receive waste from units complying with all applicable requirements specified by §61.342(b) under 40 CFR Part 61, Subpart FF – National Emission Standards for Benzene Waste Operations for a plant at which the total annual benzene quantity is greater than or equal to ten (10) Mg/yr.”

The cement kiln and the hazardous waste storage tanks are complying with 40 CFR Part 61, Subpart FF, therefore the requirements for 40 CFR Part 63, Subpart DD were not included in the operating permit.

40 CFR Part 63, Subpart EEE – *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*

The provisions of this subpart apply to all hazardous waste combustors: hazardous waste incinerators, hazardous waste burning cement kilns and hazardous waste burning lightweight kilns, except as provided in the table below:

If	And If	Then
You are a previously affected source	1) You ceased feeding hazardous waste for a period of time greater than the hazardous waste residence time (i.e., hazardous waste no longer resides in the combustion chamber); 2) You have initiated the closure requirements of subpart G, parts 264 or 265 of this chapter; 3) You begin complying with the requirements of all other applicable standards of this part (Part 63); and 4) You notify the Administrator in writing that you are no longer an affected source under this subpart (Subpart EEE).	You are no longer subject to this subpart (Subpart EEE).
You are a research, development, and demonstration source	You operate for no longer than one year after first burning hazardous waste (Note that the Administrator can extend the one-year restriction on a case-by-case basis upon your written request documenting when you first burned hazardous waste and the justification needing additional time to perform research, development, or demonstration operations.).	You are not subject to this subpart (Subpart EEE). This exemption applies even if there is a hazardous waste at the plant site that is regulated under this subpart. You still, however, remain subject to §270.65 of this chapter.
The only hazardous wastes you burn are exempt from regulation under §266.100(b) of this Chapter		You are not subject to this subpart (Subpart EEE).

The hazardous waste burning cement kiln is subject to the requirements of this standard. Therefore, the MACT was included in the operating permit.

The MACT for hazardous waste combustors was finalized on October 12, 2005, (70 FR 59402) and was revised on October 16, 2008. The final rule establishes hazardous air pollutant (HAP) emission standards for hazardous waste incinerators, and cement and lightweight aggregate kilns that burn hazardous waste. The final MACT standards replaced interim standards that had been in effect since 2002.

If 40 CFR Part 63, Subpart EEE is revised, the installation is subject to the revised standard. For operating permits with an expiration date more than three (3) years away, the permit should be reopened to incorporate the new requirements. The mechanism for this re-opening, under the current Part 70 rules, would be a “re-opening for cause”. The installation should request a “re-opening of the operating permit for cause, upon rule modifications in the federal register. The changes to the permit will be made as expeditiously as possible, but no later than eighteen (18) months. As long as the installation is meeting the requirements of the revised rule, it is deemed to be in compliance. The Air Pollution Control Program would not view the installation as being in violation of the operating permit if the installation is complying with the revisions to 40 CFR Part 63, Subpart EEE as published in the federal register.

EU0500 Conditions – Several of the operating parameter conditions require the installation to minimize combustion temperature, maximize production rate or flue gas flowrate and maximize waste feedrate. According to Buzzi Unicem USA, one cannot minimize temperature and maximize production and waste feed rate simultaneously. We understand the concerns of the installation, however the permit condition must remain as written, but if EPA decides to re-open 40 CFR Part 63, Subpart EEE and re-write this portion of the regulation, the operating permit will be re-opened for cause to remove the requirements no longer applicable and revise the permit conditions.

EU0500 Conditions – The installation operates under two (2) different modes of operation, raw mill on and raw mill off. The operational parameters to control SVM, LVM, Hydrochloric Acid, Chlorine Gas, opacity, CO, and THC emissions and DRE do not change as operational modes change, therefore the different modes of operation condition under §63.1209(q) will not be included in the SVM, LVM, Hydrochloric Acid, Chlorine Gas, opacity, CO, and THC emissions and DRE conditions.

EU0500 Conditions – Alternate Monitoring Scenario for EEE – The installation would like the ability to have an alternate monitoring scenario for EEE when not burning hazardous waste. This was set up in the operating permit by giving the installation the ability to move back and forth between 40 CFR Part 63, Subpart EEE and Subpart LLL monitoring, recordkeeping, performance testing when the installation was not burning hazardous waste fuel. The installation has submitted a request to EPA Region VII for an alternate monitoring scenario under 40 CFR Part 63, Subpart EEE. If the alternate monitoring scenario is approved by EPA Region VII, the requirements for 40 CFR Part 63, Subpart LLL will be removed from the cement kiln emission unit.

40 CFR Part 63, Subpart LLL – *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*

The provisions of this subpart apply to each new and existing Portland cement plant that is a major or an area source. The affected sources subject to this regulation are:

- Each kiln and each in-line kiln/raw mill at any major or area source, including alkali bypasses, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to and regulated under subpart EEE of this part;
- Each clinker cooler at any portand cement plant that is a major source;
- Each raw mill at any Portland cement plant that is a major source;
- Each finish mill at any Portland cement plant that is a major source;

- Each raw material dryer at any Portland cement plant that is a major source and each greenfield raw material dryer at any Portland cement plant that is a major or area source;
- Each conveying system transfer point at any Portland cement plant that is a major source;
- Each bagging system at any Portland cement plant that is a major source; and
- Each bulk loading or unloading system at any Portland cement plant that is a major source.

The installation is a major source of HAPs, and therefore the kiln, raw mill, clinker cooler, finish mill, raw material dryer, conveying system transfer points, bagging system and bulk loading/unloading systems are covered by the MACT. The preheater/precalciner process kiln does contain an alkali bypass and an in-line raw mill.

The MACT for the Portland cement manufacturing industry was finalized on June 14, 1999. On December 15, 2000, the United States Court of Appeals for the District of Columbia Circuit remanded parts of the rule to EPA to be revised. EPA revised the rule and become effective on December 20, 2006.

If 40 CFR Part 63, Subpart LLL is revised, the installation is subject to the revised standard. For operating permits with an expiration date more than three (3) years away, the permit should be reopened to incorporate the new requirements. The mechanism for this re-opening, under the current Part 70 rules, would be a “re-opening for cause”. The installation should request a “re-opening of the operating permit for cause, upon rule modifications in the federal register. The changes to the permit will be made as expeditiously as possible, but no later than eighteen (18) months. As long as the installation is meeting the requirements of the revised rule, it is deemed to be in compliance. The Air Pollution Control Program would not view the installation as being in violation of the operating permit if the installation is complying with the revisions to 40 CFR Part 63, Subpart EEE as published in the federal register.

According to 40 CFR Part 63, Subpart LLL – The first source affected are the raw material storage just prior to the raw mill. If the emission units are not the raw material storage prior to the raw mill, the emission units are not covered by LLL:

“...the first affected source in the sequence of materials handling operations subject to this subpart is the raw material storage, which is just prior to the raw mill. Any equipment of the on-site nonmetallic mineral processing plant which precedes the raw material storage is not subject to this subpart. In addition, the primary and secondary crushers of the on-site nonmetallic mineral processing plant, regardless of whether they precede the raw material storage, are not subject to this subpart. Furthermore, the first conveyor transfer point subject to this subpart is the transfer point associated with the conveyor transferring material from the raw material storage to the raw mill.”

Based on this definition, the first emission units affected by 40 CFR Part 63, Subpart LLL are the raw material storage silos (EU0150 through EU0220) and the conveyor transfer points that transfer material to from the storage silos to the raw mill (EU230, EU0470 – EU0490) :

- EU0150 – Raw Material Storage Silo W-4501 (Limestone)
- EU0160 – Raw Material Storage Silo W-4502 (Diaspore)
- EU0170 – Raw Material Storage Silo W-4503 (Tripoli)
- EU0180 – Raw Material Storage Silo W-4504 (Mill Scale)
- EU0190 – Raw Material Storage Silo W-4511 (Gypsum)

EU0200 – Raw Material Storage Silo W-4512 (Limestone)
EU0210 – Raw Material Storage Silo W-4505 (Fly Ash)
EU0220 – Raw Material Storage Silo W-4506 (Fly Ash)
EU0230 - Pfister Feeders R-3504 and R-3554
EU0470 - Transfer Belt R-3801
EU0480 - Transfer Belt R-3803
EU0490 - Transfer Belt R-3700
(R-3801 is the first belt. It discharges onto R-3803 which discharges onto R-3700)

The kiln system has an in-line raw mill and the kiln gases may pass through the raw mill or ducted around the raw mill. In either case, the emissions pass through the same air pollution dust collector and are vented through the same stack. According to a September 7, 1996, memorandum on the Opacity Limitation for “In-line” Portland Cement Plants from John Rasnic:

“In an April 6, 1995, memorandum regarding “Opacity Limitations for the Portland Cement Plant New Source Performance Standards “(NSPS), we stated that where gases originate in one affected facility and pass through another affected facility as part of the manufacturing process, the Environmental Protection Agency (EPA) applies the emission limitation or standard for the affected facility from which the gases are discharged directly into the atmosphere. In the example discussed in the April 6, 1995, memorandum, kiln gases are routed through a raw mill, and we state that the raw mill opacity limitation of 10% applies. Where the kiln and raw mill operate as separate affected facilities, this determination continues to be correct.

However, many dry process Portland cement plants are constructed in an “in-line” fashion where the kiln, precalciner, preheater and raw mill are integrated so that the kiln gases are used to perform the drying activity in the raw mill and the raw mill is simply an extension of the kiln. In this “in-line” system, no independent raw mill activity exists and the raw mill does not generate a separate gas stream. The kiln is capable of operating without the raw mill but the raw mill can not operate without the kiln gases. In this configuration, the raw mill does not exist as a separate NSPS affected facility. Consequently, we believe it is appropriate for the gases exiting the “in-line” kiln/raw mill combination to be subject to the twenty percent (20%) opacity limit and the 0.30 pounds per ton of feed particulate matter limit which applies to kilns in... .Any time the raw mill operates independently without kiln gas, the ten percent (10%) opacity limit applies. If the facility also exhaust gases through an alkali bypass stack, the emissions from the bypass stack must also meet the twenty percent (20%) opacity limit and the combines particulate matter emission from the bypass stack and the “in-line” kiln/raw mill main stack must meet the 0.30 pounds per ton of feed particulate matter limit.”

The application of the limits from the MACT are applied in a similar manner as mentioned for the NSPS in the referenced memorandum.

The clinker cooler at the plant is an enclosed system. According to the installation, the equipment has been previously included with the kiln and raw mill on EIQs, but the clinker cooler makes no contribution to the emissions from those sources. Most emissions are vented through a heat exchanger and back into the clinker cooler. Some of the process air is also used to heat the coal mills. The clinker cooler system does not vent directly to the atmosphere, therefore it is not subject

to the requirements of the Portland Cement Manufacturing MACT.

PW003 – Operations and Maintenance Plan – According to Buzzi Unicem USA, EPA and industry are currently negotiating provisions of the ongoing SSM plan part of the Part 70 permit. This condition has been placed in the operating permit, but if EPA decides to re-open 40 CFR Part 63, Subpart LLL and re-write this portion of the regulation, the operating permit will be re-opened for cause to remove the requirements no longer applicable and revise the permit conditions.

PW005 and EU0500 Conditions – Performance Testing – Buzzi Unicem USA is wanting to comply with the MACT standards using the testing and emission averaging scenarios under 40 CFR Part 63, Subpart EEE. The installation would prefer not to be required to test under the requirements for 40 CFR Part 63, Subpart EEE and LLL. These conditions have been placed in the operating permit, but Buzzi Unicem USA can request alternate methodologies when submitting their performance test plan to EPA Region VII. If EPA grants an alternate test plan methodology and emission averaging scenario, the operating permit will be re-opened for cause to remove the requirements no longer applicable and revise the permit conditions.

40 CFR Part 63, Subpart ZZZ – *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

Buzzi Unicem USA – Cape Girardeau Plant operates two emergency generators with 680 and 749 horsepower diesel engines. The generators are not subject to any requirements under Subpart ZZZZ [§63.6590(b)(3)] except the retention of the record of the MACT applicability determination for 5 years for these engines. [§§63.1(b)(3) and 63.10(b)(3)]

NESHAP Applicability

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*

40 CFR Part 61 Subpart M – *National Emission Standard for Asbestos*, §61.145(a), Standard for demolition and renovation, applies to the installation.

40 CFR Part 61, Subpart V – *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

The provisions of this subpart apply to each of the following sources that are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems required by this subpart.

40 CFR Part 63, Subpart DD references Subpart V, however as stated previously, the installation is not subject to the requirements of 40 CFR Part 63, Subpart DD. The installation is subject to 40 CFR Part 61, Subpart M and Subpart FF and neither subpart references Subpart V. Therefore, the installation is not subject to the requirements of 40 CFR Part 61, Subpart V and it was not included in the operating permit.

40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*

The provisions of this subpart apply to owners and operators of chemical manufacturing plants, coke by-product recovery plants and petroleum refineries. The provisions of this subpart apply to owners and operators of hazardous waste treatment, storage and disposal facilities that treat store, or dispose

of hazardous waste generated by any facility listed above in the first sentence. The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of this subpart are the benzene-containing hazardous waste from any facility listed above in the first sentence. A hazardous waste treatment, storage, and disposal facility is a facility that must obtain a hazardous waste management permit under subtitle C of the Solid Waste Disposal Act.

The provisions of this subpart apply to wastewater streams, storage tanks, surface impoundments, individual drain systems, oil-water separators, treatment processes, closed-vent systems and control devices.

The requirements for 40 CFR Part 61, Subpart FF have been included in the operating permit for the storage tanks and the treatment processes. The testing requirements listed in Subpart FF for the treatment process were not included in the operating permit since Lone Star has already demonstrated a DRE of at least 99.99% in their previous testing at the installation and the testing requirements do not indicate a repeat frequency.

CAM Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that meets all of the following:

- Be subject to an emission limitation or standard, and
- Use a control device to achieve compliance, and
- Have pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 is not applicable:

- The kiln (EU0500) and the raw mill system (EU0510) are the only emission units that have pre-control emissions above the major source threshold. Since these units are subject to 40 CFR Part 63, Subpart LLL standards and units that are subject to 111 or 112 standards promulgated after November 15, 1990, are excluded from CAM, the installation is not subject to CAM.

Other Regulatory Determinations

1) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*

10 CSR 10-6.400 limits the amount of particulate matter that is allowed from an emission unit, and is dependent on the process weight rate material processed. The emission units to which this rule applies are listed below. The following calculations provide the allowable particulate emission rate based on 10 CSR 10-6.400 and the potential (maximum) emission rate including particulate emission control equipment. Potentials to emit presented below were calculated based on sources Maximum Design Rate (MDR). If the emissions from these emission units can not violate the limits of this rule then evidence of this is demonstrated in the following calculations.

One of the following equations from 10 CSR 10-6.400 is used to calculate the PM allowable limit:

$E = 4.10P^{0.67}$ for process weight rates up to 30 tons (60,000 lbs) per hour, and

$E = 55.0P^{0.11} - 40$ for process weight rates greater than 30 tons (60,000 lbs) per hour

Where: E = rate of emission in lb/hr; and

P = process weight rate in tons/hr (maximum hourly design rate)

- a) At maximum design rates, the uncontrolled potential PM emission rates for the units listed in the table below based on FIRE and AP-42 factors are less than the allowed exemption level of 10

b) CSR 10-6.400(1)(B)11. (i.e., 0.5 lbs/hr), therefore these units are not subject to the provisions of this rule. Emission factors used are from FIRE [*SCC: 3-05-006-12, **3-05-010-08] and AP42 [§16.4 (SCC 3-05-006-17), AP-42, §11.12 (Table 11.12-2, Cement Unloading (SCC 3-05-011-07))].

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emission		
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
EU0150	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0160	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0170	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0180	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0190	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0200	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0210	200	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.17	0.01	58.51
EU0220	200	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.17	0.01	58.51
EU0230	15	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.01	0.00	25.16
EU0350	20	Cyclone & Fabric Filter	100	99		0.02	Fire**	0.40	0.00	30.51
EU0360	15	Cyclone & Fabric Filter	100	99		0.02	Fire**	0.30	0.00	25.16
EU0540	325	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.28	0.01	63.91
EU0550	325	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.28	0.01	63.91
EU0560	325	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.28	0.01	63.91
EU0570	325	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.28	0.01	63.91
EU0580	325	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.28	0.01	63.91
EU0590	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0600	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0610	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0620	5	Drum Wetter	100	99	2.9E-5	8.5E-4	Fire*	0.00	0.00	12.05
EU0630	30	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.03	0.00	40.04
EU0640	30	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.03	0.00	40.04
EU0650	175	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.15	0.01	57.07
EU0660	175	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.15	0.01	57.07
EU0670	175	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.15	0.01	57.07
EU0680	175	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.15	0.01	57.07

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emission		
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
EU0730	400	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.34	0.01	66.31
EU0740	400	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.34	0.01	66.31
EU0750	400	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.34	0.01	66.31
EU0760	400	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.34	0.01	66.31
EU0770	400	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.34	0.01	66.31
EU0780	400	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.34	0.01	66.31
EU0790	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0800	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0810	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0820	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0830	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0840	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0850	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0860	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0870	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0880	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880A	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880B	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880C	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880D	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880E	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880F	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880G	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0880H	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0910	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0920	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0930	300	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0940	3000	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.26	0.01	63.00
EU0960	175	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.15	0.01	57.07
EU0970	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU0980	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emission		
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
EU0990	350	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.30	0.01	64.76
EU1510	50	Fabric Filter	100	99	2.9E-5	8.5E-4	Fire*	0.04	0.00	44.58

c) At maximum design rates, the uncontrolled potential PM emission rates for the units listed in the table below based on FIRE and AP-42 factors are less than their corresponding allowable PM emission limits. No monitoring, recordkeeping or reporting is required. Emission factors used are from FIRE [**3-05-010-08] and AP-42 [§11.6, Table 11.6-4 (SCC 3-05-006-27 and SCC 3-05-006-29) and §11.12, Table 11.12-2, Cement Unloading (SCC 3-05-011-07)].

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emission		
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
EU0290	300	Fabric Filter	100	99		0.02	Fire**	6.00	0.06	63.00
EU1000	150	Fabric Filter	100	95	0.0024	0.048	AP-42	7.20	0.36	55.44
EU1010	150	Fabric Filter	100	95	0.0024	0.048	AP-42	7.20	0.36	55.44
EU1020	150	Fabric Filter	100	95	0.0024	0.048	AP-42	7.20	0.36	55.44
EU1030	150	Fabric Filter	100	95	0.0024	0.048	AP-42	7.20	0.36	55.44
E01040	150	Fabric Filter	100	95	0.008	0.16	AP-42	24.00	1.20	55.44
EU1050	150	Fabric Filter	100	95	0.008	0.16	AP-42	24.00	1.20	55.44
EU1080	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1090	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1100	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1110	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1120	280	Fabric Filter	100	95		0.27	AP-42	25.20	1.26	50.59
EU1170										
EU1180										
EU1220	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
through										
EU1370										
EU1380	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1390	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1400	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44
EU1520	150	Fabric Filter	100	99		0.27	AP-42	40.50	0.41	55.44

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emission		
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
EU1521	1,000	Fabric Filter	100	94	0.00021	0.0035	EC	3.50	0.21	77.59

d) At maximum design rates, the potential PM emission rates for the units listed in the table below based on FIRE and AP-42 factors are less than their corresponding allowable PM emission limits. No monitoring, recordkeeping or reporting is required. Emission factors used are from FIRE [**3-05-010-08] and AP-42 [§11.6, Table 11.6-4 (SCC 3-05-006-27 and SCC 3-05-006-29) and §11.12, Table 11.12-2, Cement Unloading (SCC 3-05-011-07)].

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emissions (lb/hr)	PM Limit (lb/hr)
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source		
EU1060	150	Fabric Filter	100	95	0.028	0.56	AP-42	4.20	55.44
EU1070	150	Fabric Filter	100	95	0.028	0.56	AP-42	4.20	55.44
EU1130	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1140	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1150	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1160	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1190	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1200	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1210	280	Fabric Filter	100	95		0.27	AP-42	3.78	62.22
EU1410	800	Fabric Filter	100	99		0.27	AP-42	2.16	74.74
EU1430	400	Fabric Filter	100	99		0.27	AP-42	1.08	66.31
EU1440	400	Fabric Filter	100	99		0.27	AP-42	1.08	66.31
EU1450	1,000	Fabric Filter	100	99		0.27	AP-42	2.70	77.59
EU1460	1,000	Fabric Filter	100	99		0.27	AP-42	2.70	77.59
EU1470	1,000	Fabric Filter	100	99		0.27	AP-42	2.70	77.59
EU1480	800	Fabric Filter	100	99		0.27	AP-42	2.16	74.74
EU1490	800	Fabric Filter	100	99		0.27	AP-42	2.16	74.74
EU1500	250	Fabric Filter	100	99		0.27	AP-42	0.68	60.96

- The #4 and #5 mill separators (EU1070 & EU1060) have baghouses as part of the separators. The separators cannot be operated unless the dust collectors are running. If the dust collector fans stop, the separators automatically stop (interlocked). If the dust collector malfunctions, the blower shuts off, this shuts down the entire separator system.
- The dust collectors for EU1130 - EU1160, EU1190 - EU1210, Portland cement storage silos are considered as material handling equipment and must be operated when filling the silos to relieve pressure in the silos as the cement is blown in. The standard operating procedure is to start the dust collectors before starting the pump and opening the valves to fill the silos.
- The cement transfer belts, EU1410, EU1430, & EU1440, are all interlocked to the dust collector fans. If the fan stops, feed to the belts stops. There is also a group start that starts the dust collectors automatically when the belts are started.
- EU1450 - EU1480 cannot start unless the dust collector is running. The equipment is all enclosed. Compressed air is used to aerate material inside the equipment. Since the equipment is enclosed, the dust collector is needed to relieve pressure from the equipment and would be operated regardless of environmental requirements.
- EU1490 & EU1500, these emission units are interlocked with the dust collectors. If the fan stops, feed to the belts stops. There is also a group start that starts the dust collectors automatically when the equipment is started.

As described above, the dust collectors associated with the units listed in the table above are an integral part of process operation. In summary, the dust collectors are inherent to the operation of the material transfer processes and provide for product recovery. Therefore, the dust collectors do not meet thy definition of add-on control device, and the dust collectors are considered when calculating the potential to emit.

e) According to 10 CSR 10-6.400(1)(B)7., the following fugitive sources are not subject to this rule.

- RM01 - Drilling
- RM03 - Quarry (Raw Material) Truck Loading
- RM04 - Quarry Haul Road
- RM14 - Raw Material Storage Pile – Limestone
- RM15 - Raw Material Storage Pile – Diaspore
- RM16 - Raw Material Storage Pile – Tripoli
- RM20 - Piles in Shed
- RM21 - Barge Unloading to Trucks (Raw Material - Gypsum/Mill Scale)
- RM22 - Haul Road to Raw Material Storage
- RM23 - Raw Material Storage Pile (Gypsum)
- RM24 - Raw Material Storage Pile (Mill Scale)
- CH02 - Haul Road
- CH03 - Solid Fuel Storage Pile (Coal)
- TH02 - Slag Haul Road
- TH03 - Solid Fuel Storage Pile (Tires)
- TH06 - Storage Pile (Partially Enclosed)
- KP08 - Haul Road to Landfill
- KP12A - Clinker Haul Road
- KP24 - Internal Plant Clinker Hauling
- AF01 - Alternative Fuels - Haul Road

- AF13 - Miscellaneous Painting
- CH01 Barge Unloading to Trucks (coal)
- CH04A - Hopper W-9600 (coal)
- CH04B- Feeder Belt W-9800 (coal)
- CH05 - Transfer Belt W-9700 (coal)
- CH06 – Screen W-9701 (coal)
- CH08A - Reversible Transfer Belt W-8106 (coal)
- CH08B - Solid Fuel (coal) Silo C-0900
- CH08B - Solid Fuel (coal) Silo C-2300
- CH09 - Transfer Belt C-1000
- KP14A - Clinker Storage Pile Farm
- KP14B - Clinker Storage Pile Farm (Enclosed)
- KP23 - Clinker Truck Loading
- FM8B - Elevator (TL-0400)

f) This regulation does not apply to the units listed below due to the nature of the operation, where 10 CSR 10-6.400(1)(B)(2) exempts the grinding, crushing and classifying operations at a rock quarry.

- EU0010 through EU0050 and EU0110 [Screens, Transfer Points (Conveyors) and Crusher]
- RM05 – Hopper Vibrating Feeder
- RM06A-Primary Crusher (A-1700)
- RM06B-Primary Crusher Transfer Belt (A-1900)
- RM06C-Primary Crusher Transfer Belt (A-2000)
- RM07-Chute – Splitter Box (A-2002)
- RM12-Transfer Belt From Crusher to Piles (A-2500)
- RM12-Transfer Belt From Crusher to Piles (A-2600)
- RM13-Transfer Belt to Piles #1 (A-3300)
- RM13-Transfer Belt to Piles #4 (A-3400)

2) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

Screen Three (3) models were ran for the sulfur oxide emissions at the maximum hourly design rate for the fuel burning stacks. The kiln uses coal, waste derived liquid fuel and waste oil with a 2.69% sulfur limit on the waste derived liquid fuel (WDLF) and waste oil from construction permit number: 0392-001. The process heaters, raw mills and back-up generator use #2 fuel oil, which has a sulfur limit of 0.5%. The space heater uses kerosene. The maximum one-(1) hour concentration of the stacks were calculated as follows:

Equipment	Maximum 1-Hr Conc. ($\mu\text{g}/\text{m}^3$)	Max. Annual Conc. ($\mu\text{g}/\text{m}^3$)
Process Heater C-1400 - #2 Fuel Oil	0.06	0.005
Process Heater C-2800 - #2 Fuel Oil	0.06	0.005
Raw Mill Heater R-4601 - #2 Fuel Oil	0.18	0.014
Raw Mill Heater R-4602 - #2 Fuel Oil	0.18	0.014
Total	0.48	0.038

It was assumed that with the equipment listed above, the two (2) space Heaters (Kerosene) and two (2) Back-up Generators (#2 Fuel Oil) that the Maximum Annual Concentration would not exceed $0.5 \mu\text{g}/\text{m}^3$.

Screen Three (3) models were then ran on the kiln for the 2.69% WDLF and waste oil and for 5%, 6.8% and 6.6% coal. The maximum one-(1) hour concentration of the stacks were calculated as follows:

Equipment	Maximum 1-Hr Conc. ($\mu\text{g}/\text{m}^3$)	Max. Annual Conc. ($\mu\text{g}/\text{m}^3$)
Kiln – 2.69% WDLF	129	10.32
Kiln – 2.69% Waste Oil	129	10.32
Kiln – 5% Coal	549.3	43.94
Kiln – 6.8% Coal	747	59.76
Kiln – 6.6% Coal	725.1	58.08
Totals with 5% Coal	807.8	64.62
Totals with 6.8% Coal	1005.5	80.44
Totals with 6.6% Coal	983.6	78.69

The maximum concentration of the stacks together with 6.6% sulfur content value of the coal ($78.69 \mu\text{g}/\text{m}^3$) is ninety-eight percent (98%) of the annual ambient air level for sulfur dioxide ($80 \mu\text{g}/\text{m}^3$). It is highly unlikely that the units will exceed the emission limitation or the ambient air level when the sulfur content of the fuels is as follows: coal - 6.6% by weight, WDLF and waste oil - 2.69% by weight and the #2 fuel oil units - 0.5% by weight. Therefore, an emission limitation on the sulfur contents of the fuels will be placed in the permit and the recordkeeping will be required for the sulfur contents. However, if additional fuel burning units are placed at the installation the sulfur content limit of the coal will have to be re-examined.

- 3) September 24, 1990 Settlement Agreement between Missouri Department of Natural Resources, Attorney General and Lone Star Industries, Inc.
 The settlement agreement established a timeline for the installation of a new system of air flows through various processes at the cement plant to reduce the number of previous excess emissions. The installation has completed the installation of the air flow system and therefore the requirements of the September 24, 1990, Settlement Agreement were not included in the operating permit.
- 4) The units listed in the “Emission Units Without Limitations” section in the front of this permit either have no applicable regulations associated with them or are considered insignificant activities.
 - a) The sources in the table below listed as units without limitation are fugitive sources that do not emit regulated pollutants from a discrete stack or vent. These sources emit particulate matter directly into the ambient air. These sources do not have any type of capture/control devices and are not covered or required to control their emissions based on any past or current regulations. These sources are not subject to any specific rule except the core permit requirement of 10 CSR 10-6.170 and must comply with this requirement.

Reference #	Description of Emission Unit
RM01	Drilling
RM03	Quarry (Raw Material) Truck Loading
RM04	Quarry Haul Road
RM05	Hopper – Vibrating Feeder (A-1601)
RM06A	Primary Crusher (A-1700)
RM06B	Primary Crusher Transfer Belt (A-1900)
RM06C	Primary Crusher Transfer Belt (A-2000)
RM07	Chute – Splitter Box (A-2002)

Reference #	Description of Emission Unit
RM12	Transfer Belt From Crusher to Piles (A-2500)
RM12	Transfer Belt From Crusher to Piles (A-2600)
RM13	Transfer Belt to Piles #1 (A-3300)
RM13	Transfer Belt to Piles #4 (A-3400)
RM14	Raw Material Storage Pile – Limestone
RM15	Raw Material Storage Pile – Diaspore
RM16	Raw Material Storage Pile – Tripoli
RM20	Piles in Shed
RM22	Haul Road to Raw Material Storage
CH02	Haul Road
CH03	Solid Fuel Storage Pile (Coal)
TH02	Slag Haul Road
KP08	Haul Road to Landfill
KP12A	Clinker Haul Road
KP24	Internal Plant Clinker Hauling
AF01	Alternative Fuels - Haul Road Unloader/Crusher Landfill

- b) The following is the list of equipment not subject to an applicable requirement identified as insignificant activities at the time of permit issuance. However, the installation is not limited to those activities listed, below.

Reference #	Description of Emission Unit
AF13	Miscellaneous Painting
AF11	Propane Tank (3)
MS01	Parts Washers (4)– 35 Gallon – Mineral Spirits
MS02	Three Lube Oil Storage Tanks – Tank #2, 5, & 6, 300 Gallon Each
MS03	Two Gasoline Storage Tanks: Tank #9 – 550 Gallon Tank #19 – 300 Gallon
MS05	Waste Oil Tank #10– 1000 Gallon
MS08	Diesel Storage Tanks (11): Tank #7 – 8,000 Gallon – Quarry Tank #8 – 10,000 Gallon – Quarry Tank #11 – 300 Gallon – Additive Crusher Tank #12 – 300 Gallon – River Unloading Dock Tank #13 – 150 Gallon – Spray Pond Tank #15 – 560 Gallon – Courtyard Tank #16 – 200 Gallon – Plant Generator Tank #18 – 300 Gallon – Parking Lot Tank #27 – 300 Gallon – Alternate Fuels Tank #28 – 500 Gallon – Electric Room 17 Generator Tank # 37 – 100 Gallon – Portable
MS10	Storage Tanks #3 and 4 – 150 Gallon Oil Tanks – Quarry Garage
MS6	Storage Tank #14a & 14b – 20,000 Gallon each Diesel Tank – Plant Storage Tank #17 – 550 Gallon Kerosene Tank – Plant Parking Lot Storage Tank #24 – 12,000 Gallon Air Entraining Tank – Plant Finish Mill

Reference #	Description of Emission Unit
MS07	2 Space Heaters – Kerosene - 0.3 MMBtu/Hr (each)
MS07	4 Space Heaters – Kerosene - 0.1 MMBtu/Hr (each)
AF10, MS04 & MS09	Vehicle Refueling (Diesel and Gasoline)
	Pump-Off Station/Pail Loading

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Berhanu A. Getahun
Environmental Engineer

CERTIFIED MAIL: 70073020000315696384
RETURN RECEIPT REQUESTED

W. Sreven Leus, Jr., Plant Manager
Buzzi Unicem USA, Inc. - Cape Girardeau Plant
P.O. Box 520
Cape Girardeau, MO 63702

Re: Buzzi Unicem USA, Inc. - Cape Girardeau Plant, 031-0021
Permit Number: OP2010-028

Dear Mr. Leus:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Berhanu Getahun at the St. Louis Regional Office, 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, or by phone at (314) 416-2960. You may also contact me with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by phone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

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AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:bgk

Enclosures

c: Ms. Tamara Freeman, US EPA Region VII
Southeast Regional Office
PAMS File: 2005-10-052