

# ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 75-AOP-R56  
IS ISSUED TO:  
Ash Grove Cement Company  
4457 Highway 108  
Foreman, AR 71836  
Little River County  
AFIN: 41-00001

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

October 2, 2002

AND

October 1, 2007

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

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Mike Bates  
Chief, Air Division

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Date Modified

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#### List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO <sub>x</sub>	Nitrogen Oxide
PM	Particulate Matter
PM10	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO <sub>2</sub>	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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## **SECTION I: FACILITY INFORMATION**

PERMITTEE: Ash Grove Cement Company

AFIN: 41-00001

PERMIT NUMBER: 75-AOP-R56

FACILITY ADDRESS: 4457 Highway 108  
Foreman, AR 71836

MAILING ADDRESS: 4457 Highway 108  
Foreman, Arkansas 71836

COUNTY: Little River

CONTACT POSITION: Dan Peterson, Plant Manager

TELEPHONE NUMBER: (501) 542-6217

REVIEWING ENGINEER: Wesley Crouch

UTM North South (Y): Zone 15: 3728.9

UTM East West (X): Zone 15: 368.35

## **SECTION II: INTRODUCTION**

### **Summary of Permit Activity**

Ash Grove operates a portland cement plant located at 4457 Hwy 108 West in Foreman, Arkansas 71836. This modification will allow Ash Grove to replace an existing screw conveyor with a weigh belt (SN-M12) and add a conveyor belt to allow the addition of limestone to Mill No. 4 (SN-M46). This project will result in additional PM emissions of 0.5 tpy and PM<sub>10</sub> emissions of 0.2 tpy.

### **Process Description**

For informational purposes only, this section does not contain enforceable conditions.

Ash Grove Cement Company operates a portland cement plant near Foreman, Arkansas. The manufacture of portland cement at this facility is a five step process.

1. Acquisition of raw materials from nearby quarrying and crushing and from off-site sources.
2. Preparation of the raw materials for pyroprocessing by grinding with water into a slurry.
3. Pyroprocessing of the slurried raw materials into portland cement clinker.
4. Grinding of a mixture of clinker and gypsum into various portland cement products.
5. Cement storage and shipment of finished cement.

Raw materials consist of chalk, sand, and iron ore. Chalk is received by belt conveyor from the plant quarry and stock-piled in an A-framed structure. Sand and iron ore are received from off site and stored in separate outdoor piles. The chalk, sand, and iron ore are crushed and then transported to the mill building by a conveyor belt.

Within the mill building, the chalk, sand, and iron ore are stored in separate bins. These raw materials are proportioned, mixed with water in a ball mill and ground into a slurry. The slurry is pumped and metered into three rotary cement kilns in which chemical reactions occur to form clinker, an intermediate product that ultimately becomes portland cement.

From time-to-time, spent kiln brick removed from the rotary kilns is used to replace a portion of the raw materials fed to kiln #3. The spent brick is crushed in a portable crusher before being transferred to the mill building with other raw materials.

The raw material slurry is fed to the rotary kiln pyroprocessing system. The kilns are slowly-rotating steel tubes lined with various refractory materials (e.g. kiln brick). Each kiln slopes at an angle of about 5 degrees. The raw material slurry is fed to the kiln at the upper, or feed, end. Fuel generally is introduced at the lower, or burning, end of the kiln. The slope and rotation of the kiln allows the slurry to flow by gravity through the various reaction zones within the kiln.

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Combustion gases and the slurry flow countercurrent to each other. Each kiln is equipped with an electrostatic precipitator to control particulate emissions.

Within the rotary kilns, the chemical constituents of the raw materials react with each other and are fused into nodules of portland cement clinker at a material temperature of about 2700 °F. The clinker exits at the burning end of the kiln and falls into clinker coolers in which the clinker is air cooled. A portion of this air is used for combustion air in the kilns. The balance of the air is vented to the atmosphere through a fabric filter.

After cooling, the clinker is transported by a series of conveyors to clinker storage silos. The clinker can also be transported by conveyor to an enclosed storage dome or by truck to an outside storage pile.

Clinker taken from storage is sent to finish milling. During finish milling, clinker is ground with gypsum and/or other additives to produce portland cement and masonry cement. Gypsum is delivered to the plant from off site sources and stored in an outdoor pile adjacent to the raw material storage areas. Gypsum is withdrawn from the pile by an underpile feeder which is located in a tunnel. The gypsum is transported to mill feed bins in the mill building. Chalk for masonry cement is dried in a rotary drier equipped with a wet scrubber control device.

Cement is pneumatically conveyed from the finish mills to several storage silos. From these silos, the cement is loaded into rail cars and trucks or packed into bags for shipment.

The fuel sources used to produce clinker at the Foreman plant include fossil fuels, including coal and natural gas, tire-derived fuel (TDF), hazardous waste-derived fuel (HWDF), and used oils from on and off site sources. These fuels are used in varying combinations and in varying percentages of the total fuel input.

Fuels are fed to the clinker discharge end of the kiln through a multichannel burner pipe. Containerized solid hazardous waste-derived fuel (SWDF) and TDF are fed directly into the calcining zone within the kilns. This location generally is midway between the feed end and burning end of the kiln.

The primary fossil fuel used to fire the kilns is coal. Coal is received from off-site sources and is stored in an outdoor storage pile.

TDF is received at the plant from off site sources. Tires may be fed to the kilns by hand or using automated equipment.

LWDF is received in rail tank cars and in tank trucks and stored in above ground storage tanks before being transferred to the kilns. Currently, Ash Grove operates three above ground LWDF storage tanks. In the near future, Ash Grove will operate seven above ground LWDF storage tanks. To control VOC emissions, the LWDF storage tanks are vented to a thermal oxidizer with a back up carbon adsorption system.

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Containerized SWDF is received in van trailers and flat bed trailer trucks. Each individual container of SWDF is mechanically fed at the mid-kiln location.

### Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective May 28, 2006
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002
40 CFR Part 60 Subpart F, <i>Standards of Performance for Portland Cement Plants,</i>
40 CFR Part 60 Subpart Kb, <i>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</i>
40 CFR Part 61, Subpart FF, <i>National Emission Standards for Benzene Waste Operations</i>
40 CFR Part 63, Subpart DD, <i>National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations</i>
40 CFR Part 63, Subpart LLL, <i>National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry</i>
40 CFR Part 63, Subpart EEE, <i>National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors</i>

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.



### Emission Summary

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	416.07	1112.45
		PM <sub>10</sub>	135.67	562.45
		SO <sub>2</sub>	2563.4	5736.1
		VOC	81.4	285.1
		CO	551.0	1214.9
		NO <sub>x</sub>	3337.1	9097.0
HAPs*		1,1,1-trichloroethane*	0.03	0.05
		1,1,2,2-tetrachloroethane*	0.03	0.10
		1,1,2-trichloroethane*	0.03	0.11
		1,1-dichloroethane*	0.03	0.05
		1,1-dichloroethene*	0.33	1.40
		1,2,4-trichlorobenzene*	0.17	0.72
		1,2-dichloroethane*	1.69	7.42
		1,2-dichloropropane*	0.03	0.10
		1,2-epoxybutane*	0.09	0.32
		1,3-butadiene*	0.53	2.27
		1,4-dichlorobenzene*	0.39	1.63
		1,4-phenylene-diamine*	0.08	0.32
		2,4,5-trichlorophenol*	0.03	0.08
		2,4,6-trichlorophenol*	0.19	0.86
		2,4-dinitrophenol*	0.07	0.25
		2,4-dinitrotoluene*	0.014	0.03
		2-butanone*	0.62	2.69
		3,3-dichlorobenzidine*	0.03	0.09
		3,3-dimethoxybenzidine*	0.03	0.1
		4-methyl-2-pentanone*	0.03	0.21
		4-nitrophenol*	0.05	0.17
		acrylonitrile*	0.09	0.40
		allyl chloride*	0.53	2.34
		aniline*	0.02	0.06
		antimony	30.5	57.37
		arsenic	0.00566	0.02459
		benzene*	0.81	3.56
		benzidine*	0.05	0.2

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		beryllium	0.00063	0.002734
		bis(2-chloroethyl)ether*	0.03	0.08
		bis(2-ethylhexyl)phthalate*	0.748	3.28
		bromodichloromethane*	0.04	0.13
		bromoform*	0.03	0.12
		bromomethane*	0.78	3.43
		cadmium	0.06513	0.2843
		carbon disulfide	0.17	0.75
		carbon tetrachloride*	0.03	0.06
		chlorine	1.3432	5.8656
		chlorobenzene*	0.35	1.52
		chloroethane*	2.11	9.19
		chloroform*	0.24	1.07
		chloromethane*	2.19	9.55
		chromium	0.01559	0.0683
		cis-1,3-dichloropropene*	0.03	0.18
		cobalt‡	66.0	289.12
		cumene*	0.03	0.10
		diethanolamine*	1.1	4.6
		dimethylphthalate*	0.014	0.03
		ethyl acrylate*	0.35	1.5
		ethylbenzene*	0.21	0.87
		ethylene dibromide*	0.03	0.04
		ethylene glycol*	0.35	1.6
		hexachlorobenzene*	0.03	0.05
		hexachlorobutadiene*	0.03	0.09
		hexachlorocyclopentadiene*	0.03	0.08
		hexachloroethane*	0.03	0.1
		hydrogen chloride	171	749.0
		hydroquinone*	0.04	0.17
		iodomethane*	0.07	0.29
		lead	1.42	.9640
		manganese	0.1462	0.64
		mercury	0.2147	0.94
		methyl methacrylate*	0.03	0.15
		methylene chloride*	4.72	20.63
		naphthalene*	0.96	4.26
		n-hexane*	0.19	0.87
		nickel	66.0	289.12
		nitrobenzene*	0.03	0.11

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		N-nitrosodiphenylamine*	0.016	0.03
		N-nitrosomorpholine*	0.03	0.13
		ortho-anisidine*	0.03	0.11
		ortho-toluidine*	0.018	0.05
		o-xylene*	0.36	1.56
		pentachlorophenol*	0.05	0.15
		phenol*	0.19	0.82
		selenium	0.0255	0.1118
		styrene*	0.07	0.26
		tert-butyl methyl ether*	0.03	0.05
		tetrachloroethene*	0.03	0.16
		toluene*	0.16	0.76
		trans-1,3-dichloropropene*	0.03	0.12
		trichloroethene*	0.13	0.59
		vinyl acetate*	0.03	0.06
		vinyl bromide*	0.13	0.61
		vinyl chloride*	0.89	3.83
		xylene*	1.45	3.83
Air Contaminants **		None		
P1	Kiln #1	PM	19.5	85.4
		PM <sub>10</sub>	19.5	85.4
		SO <sub>2</sub>	849.0	1960.0
		VOC	9.6	42.1
		CO	172.0	368.0
		NO <sub>x</sub>	889.0	2400.0
		1,1,1-trichloroethane	0.01	0.02
		1,1,2,2-tetrachloroethane	0.01	0.03
		1,1,2-trichloroethane	0.01	0.04
		1,1-dichloroethane	0.01	0.02
		1,1-dichloroethene	0.16	0.69
		1,2,4-trichlorobenzene	0.08	0.35
		1,2-dichloroethane	0.01	0.05
		1,2-dichloropropane	0.01	0.04
		1,2-epoxybutane	0.01	0.01
		1,3-butadiene	0.02	0.07
		1,4-dichlorobenzene	0.19	0.81
		1,4-phenylene-diamine	0.01	0.03
		2,4,5-trichlorophenol	0.01	0.03
		2,4,6-trichlorophenol	0.01	0.05

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		2,4-dinitrophenol	0.03	0.11
		2,4-dinitrotoluene	0.002	0.01
		2-butanone	0.21	0.91
		3,3-dichlorobenzidine	0.01	0.04
		3,3-dimethoxybenzidine	0.01	0.04
		4-methyl-2-pentanone	0.01	0.09
		4-nitrophenol	0.02	0.07
		acrylonitrile	0.03	0.11
		allyl chloride	0.19	0.84
		aniline	0.005	0.02
		antimony	8.8	38.5
		arsenic	0.00258	0.0112
		benzene	0.22	0.95
		benzidine	0.02	0.07
		beryllium	0.00028	0.00123
		bis(2-chloroethyl)ether	0.01	0.03
		bis(2-ethylhexyl)phthalate	0.004	0.02
		bromodichloromethane	0.01	0.02
		bromoform	0.01	0.03
		bromomethane	0.26	1.15
		cadmium	0.0307	0.134
		carbon disulfide	0.08	0.37
		carbon tetrachloride	0.01	0.02
		chlorine	0.0016	0.0078
		chlorobenzene	0.17	0.73
		chloroethane	1.05	4.59
		chloroform	0.01	0.06
		chloromethane	0.12	0.51
		chromium	0.00578	0.0253
		cis-1,3-dichloropropene	0.02	0.08
		cobalt <sup>‡</sup>	19.5	85.41
		cumene	0.01	0.03
		dimethylphthalate	0.002	0.01
		ethyl acrylate	0.11	0.46
		ethyl benzene	0.1	0.41
		ethylene dibromide	0.01	0.01
		hexachlorobenzene	0.01	0.02
		hexachlorobutadiene	0.01	0.03
		hexachlorocyclopentadiene	0.01	0.03
		hexachloroethane	0.01	0.04

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		hydrogen chloride	50.0	219.0
		hydroquinone	0.01	0.05
		iodomethane	0.03	0.13
		lead	0.06	0.263
		manganese	0.043	0.188
		mercury	0.0694	0.304
		methyl methacrylate	0.01	0.05
		methylene chloride	2.24	9.8
		naphthalene	0.29	1.29
		n-hexane	0.06	0.27
		nickel <sup>‡</sup>	19.5	85.41
		nitrobenzene	19.5	0.02
		N-nitrosodiphenylamine	0.003	0.01
		n-nitrosomorpholine	0.01	0.04
		ortho-aniside	0.01	0.04
		ortho-toluidine	0.004	0.02
		o-xylene	0.08	0.35
		pentachlorophenol	0.02	0.07
		phenol	0.05	0.22
		selenium	0.0075	0.0329
		styrene	0.03	0.12
		tert-butyl methyl ether	0.01	0.02
		tetrachloroethene	0.02	0.07
		toluene	0.04	0.19
		trans-1,3-dichloropropene	0.01	0.05
		trichloroethene	0.06	0.28
		vinyl acetate	0.01	0.02
		vinyl bromide	0.01	0.06
		vinyl chloride	0.44	1.91
		m/p xylene	0.21	0.92
P2	Kiln #2	PM	19.5	85.4
		PM <sub>10</sub>	19.5	85.4
		SO <sub>2</sub>	753.0	1690.0
		VOC	9.6	42.1
		CO	152.0	333.0
		NO <sub>x</sub>	882.0	2453.0
		1,1,1-trichloroethane	0.01	0.02
		1,1,2,2-tetrachloroethane	0.01	0.03
		1,1,2-trichloroethane	0.01	0.04
		1,1-dichloroethane	0.01	0.02

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		1,1-dichloroethene	0.16	0.69
		1,2,4-trichlorobenzene	0.08	0.35
		1,2-dichloroethane	0.01	0.05
		1,2-dichloropropane	0.01	0.04
		1,2-epoxybutane	0.01	0.01
		1,3-butadiene	0.02	0.07
		1,4-dichlorobenzene	0.19	0.81
		1,4-phenylene-diamine	0.01	0.03
		2,4,5-trichlorophenol	0.01	0.03
		2,4,6-trichlorophenol	0.01	0.05
		2,4-dinitrophenol	0.03	0.11
		2,4-dinitrotoluene	0.002	0.01
		2-butanone	0.21	0.91
		3,3-dichlorobenzidine	0.01	0.04
		3,3-dimethoxybenzidine	0.01	0.04
		4-methyl-2-pentanone	0.01	0.09
		4-nitrophenol	0.02	0.07
		acrylonitrile	0.03	0.11
		allyl chloride	0.19	0.84
		aniline	0.005	0.02
		antimony	8.80	38.5
		arsenic	0.00258	0.0112
		benzene	0.22	0.95
		benzidine	0.02	0.07
		beryllium	0.00028	0.00123
		bis(2-chloroethyl)ether	0.01	0.03
		bis(2-ethylhexyl)phthalate	0.004	0.02
		bromodichloromethane	0.01	0.02
		bromoform	0.01	0.03
		bromomethane	0.26	1.15
		cadmium	0.0307	0.134
		carbon disulfide	0.08	0.37
		carbon tetrachloride	0.01	0.02
		chlorine	0.0016	0.0078
		chlorobenzene	0.17	0.73
		chloroethane	1.05	4.59
		chloroform	0.01	0.06
		chloromethane	0.12	0.51
		chromium	0.00578	0.0253
		cis-1,3-dichloropropene	0.02	0.08

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		cobalt <sup>‡</sup>	19.5	85.41
		cumene	0.01	0.03
		dimethylphthalate	0.002	0.01
		ethyl acrylate	0.11	0.46
		ethyl benzene - listed twice	0.09	0.38
		ethyl benzene - listed twice	0.01	0.03
		ethylene dibromide	0.01	0.01
		hexachlorobenzene	0.01	0.02
		hexachlorobutadiene	0.01	0.03
		hexachlorocyclopentadiene	0.01	0.03
		hexachloroethane	0.01	0.04
		hydrogen chloride	50	219.0
		hydroquinone	0.01	0.05
		iodomethane	0.03	0.13
		lead	0.06	0.263
		manganese	0.043	0.188
		mercury	0.0694	0.304
		methyl methacrylate	0.01	0.05
		methylene chloride	2.24	9.8
		naphthalene	0.29	1.29
		n-hexane	0.06	0.27
		nickel <sup>‡</sup>	19.50	85.41
		nitrobenzene	0.005	0.02
		N-nitrosodiphenylamine	0.003	0.01
		n-nitrosomorpholine	0.01	0.04
		ortho-aniside	0.01	0.04
		ortho-toluidine	0.004	0.02
		o-xylene	0.08	0.35
		pentachlorophenol	0.02	0.07
		phenol	0.05	0.22
		selenium	0.0075	0.0329
		Silver - in Application		
		styrene	0.03	0.12
		tert-butyl methyl ether	0.01	0.02
		tetrachloroethene	0.01	0.07
		toluene	0.01	0.19
		trans-1,3-dichloropropene	0.01	0.05
		trichloroethene	0.06	0.28
		vinyl acetate	0.01	0.02
		vinyl bromide	0.01	0.06

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Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		vinyl chloride	0.44	1.91
		m/p xylene	0.21	0.92
P3	Kiln #3	PM	27.0	118.3
		PM <sub>10</sub>	27.0	118.3
		SO <sub>2</sub>	961.0	2090.0
		VOC	13.4	58.87
		CO	220.0	482.0
		NO <sub>x</sub>	1568.0	4230.0
		1,1,1-trichloroethane	0.01	0.01
		1,1,2,2-tetrachloroethane	0.01	0.04
		1,1,2-trichloroethane	0.01	0.03
		1,1-dichloroethane	0.01	0.01
		1,1-dichloroethene	0.01	0.02
		1,2,4-trichlorobenzene	0.01	0.02
		1,2-dichloroethane	1.67	7.32
		1,2-dichloropropane	0.01	0.02
		1,2-epoxybutane	0.07	0.3
		1,3-butadiene	0.49	2.13
		(cis/trans)1,3-dichloropropene	0.01	0.02
		1,4-dichlorobenzene	0.01	0.01
		1,4-phenylene-diamine	0.06	0.26
		2,4,5-trichlorophenol	0.01	0.02
		2,4,6-trichlorophenol	0.17	0.76
		2,4-dinitrophenol	0.01	0.03
		2,4-dinitrotoluene	0.01	0.01
		2-butanone	0.20	0.87
		3,3-dichlorobenzidine	0.01	0.01
		3,3-dimethoxybenzidine	0.01	0.02
		4-dinitrophenol	0.01	0.03
		4-methyl-2-pentanone	0.01	0.03
		acrylonitrile	0.03	0.14
		allyl chloride	0.15	0.66
		aniline	0.01	0.02
		antimony	12.9	56.6
		arsenic	0.0005	0.00219
		benzene	0.37	1.63
		benzidine	0.02	0.07
		beryllium	0.00007	0.000274
		bis(2-chloroethyl)ether	0.01	0.02



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			lb/hr	tpy
		bis(2-ethylhexyl)phthlate	0.74	3.24
		bromodichloromethane	0.02	0.09
		bromoform	0.01	0.06
		bromomethane	0.26	1.13
		cadmium	0.00373	0.0163
		carbon disulfide	0.01	0.01
		carbon tetrachloride	0.01	0.02
		chlorine	1.34	5.85
		chlorobenzene	0.01	0.06
		chloroethane	0.01	0.01
		chloroform	0.22	0.95
		chloromethane	1.95	8.53
		chromium	0.00403	0.0177
		cobalt <sup>†</sup>	27.0	118.3
		cumene	0.01	0.04
		dimethylphthalate	0.01	0.01
		ethyl acrylate	0.13	0.58
		ethylbenzene	0.01	0.05
		ethylene dibromide	0.01	0.02
		hexachlorobenzene	0.01	0.01
		hexachlorobutadiene	0.01	0.03
		hexachlorocyclopentadiene	0.01	0.02
		hexachloroethane	0.01	0.02
		hydrogen chloride	71.0	311.0
		hydroquinone	0.02	0.07
		iodomethane	0.01	0.03
		lead	0.10	0.438
		m/p xylene	0.43	1.89
		manganese	0.0602	0.264
		mercury	0.0759	0.332
		methyl methacrylate	0.01	0.05
		methylene chloride	0.24	1.03
		naphthalene	0.38	1.68
		n-hexane	0.07	0.33
		nickel <sup>†</sup>	27.0	118.3
		nitrobenzene	0.02	0.07
		N-nitrosodiphenylamine	0.01	0.01
		N-nitrosomorpholine	0.01	0.05
		ortho-anisidine	0.01	0.03
		ortho-toluidine	0.01	0.01

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		o-xylene	0.20	0.86
		pentachlorophenol	0.01	0.01
		phenol	0.09	0.38
		selenium	0.0105	0.046
		Silver - In Application		
		styrene	0.01	0.02
		tert-butyl methyl ether	0.01	0.01
		tetrachloroethene	0.01	0.02
		toluene	0.04	0.18
		trichloroethene	0.01	0.03
		vinyl acetate	0.01	0.02
		vinyl bromide	0.11	0.49
		vinyl chloride	0.03	0.14
		4-Nitrophenol	0.01	0.03
P4	Discharge into Coal Mill #1	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
P5	Discharge from Kiln #1 to #1 Bucket Conveyor	PM	0.2	0.8
		PM <sub>10</sub>	0.1	0.3
P6	3 Clinker Cooler Baghouse	PM	25.0	110.0
		PM <sub>10</sub>	25.0	110.0
P7	Discharge into Coal Mill #2	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
P8	Discharge from Kiln #2 to #2 Bucket Conveyor	PM	0.2	0.8
		PM <sub>10</sub>	0.1	0.3
P9	Discharge into Coal Mill #3	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
P10	Discharge from Kiln #3 to #3 Bucket Conveyor	PM	0.6	2.3
		PM <sub>10</sub>	0.2	0.8
P11	Discharge from Bin #48	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
P12	Discharge from Bin #48	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
P13	Discharge from Bin #47	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
P15	Baghouse Discharge to #2 Bucket Conveyor	PM PM <sub>10</sub>	0.4 0.2	1.6 0.6
P16	Baghouse Discharge to #3 Bucket Conveyor	PM PM <sub>10</sub>	0.4 0.2	1.6 0.6
P17	Bin #49 Sock Filter	PM PM <sub>10</sub>	0.5 0.5	1.9 1.9
P20	Truck Loading of CKD	PM PM <sub>10</sub>	0.1 0.1	0.2 0.1
P21	Truck Unloading of CKD	PM PM <sub>10</sub>	0.1 0.1	0.2 0.1
P22	Trailer Unloading of CKD	PM PM <sub>10</sub>	0.1 0.1	0.2 0.1
P23	CKD Pile	PM PM <sub>10</sub>	1.2 0.6	5.2 2.6
P24	Transfer from Main Coal Pile	PM PM <sub>10</sub>	0.2 0.1	0.6 0.2
P32	1500 Ton CKD Storage Bin	PM PM <sub>10</sub>	0.4 0.4	1.6 1.6
P33	CKD Handling Screw Conveyor Bin Vent	PM PM <sub>10</sub>	0.1 0.1	0.4 0.4
P34	Kiln #3 Dust Scoop Bin Vent	PM PM <sub>10</sub>	0.2 0.2	0.5 0.5
P35 P39	CKD Handling 500 Ton Silo Baghouse	PM PM <sub>10</sub>	0.3 0.3	1.1 1.1
P36	Truck Loading of CKD (North of Hwy. 108)	PM PM <sub>10</sub>	0.1 0.1	0.3 0.1
P37	1500 ton CKD Storage Bin	PM PM <sub>10</sub>	0.3 0.3	1.2 1.2
P38	CKD Truck Loadout	PM PM <sub>10</sub>	0.2 0.2	0.6 0.6
M3	Gypsum Discharge into Finish Mill #4	PM PM <sub>10</sub>	0.1 0.1	0.1 0.1
M4	Gypsum Discharge to Gypsum Elevator	PM PM <sub>10</sub>	0.1 0.1	0.1 0.1
M9	Tripper Discharge into Bins	PM PM <sub>10</sub>	0.1 0.1	0.2 0.1

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Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
M10	Discharge from Bin #45	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M11	Discharge into Bin #43	PM	0.3	1.0
		PM <sub>10</sub>	0.1	0.4
M12	Discharge from Bin #44	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
M13	Discharge from Bin #43	PM	0.3	1.0
		PM <sub>10</sub>	0.1	0.4
M14	Transfer from Admix Weigh Feeder to B Belt	PM	0.3	1.0
		PM <sub>10</sub>	0.1	0.4
M15	Transfer from Bin #42 Feeder to B Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M16	#2 Finish Mill Baghouse	PM	0.7	3.0
		PM <sub>10</sub>	0.7	3.0
M17	#2 Finish Mill Baghouse-Mill Sweep	PM	0.5	2.0
		PM <sub>10</sub>	0.5	2.0
		VOC	3.8	16.3
		Diethanolamine	0.2	0.6
		Ethylene Glycol	0.1	0.2
M18	#4 Finish Mill Baghouse	PM	1.1	4.7
		PM <sub>10</sub>	1.1	4.7
M19	#4 Finish Mill Discharge Baghouse-Mill Sweep	PM	1.6	6.7
		PM <sub>10</sub>	1.6	6.7
		VOC	27.8	122.0
		Diethanolamine	1.0	4.1
		Ethylene Glycol	0.4	1.4
M20	Dryer Scrubber	PM	0.4	1.8
		PM <sub>10</sub>	0.2	0.9
		SO <sub>2</sub>	0.1	0.2
		VOC	0.5	1.9
		CO	6.3	27.6
		NO <sub>x</sub>	7.5	32.9
M21	Discharge from Bin #42 to Feeder	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M22	Discharge from Bin #41	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M23	Transfer from Bin #41 Conveyor Belt to A1	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1

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Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	Conveyor Belt			
M24	Discharge from Bin #40	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M25	Discharge from D Belt into Chalk Dryer	PM	0.2	0.6
		PM <sub>10</sub>	0.1	0.2
M26	Transfer to D Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M27	Discharge from Bin #39	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
M28	Transfer to Dry Feed Belt	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
M29	Transfer to Dry Feed Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M30	Transfer from #1 Clinker Bin to Dry Feed Belt	PM	0.4	1.6
		PM <sub>10</sub>	0.2	0.6
M31	Discharge from Bin #38	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M32	Discharge from Bin #38	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M33	Discharge from Bin #37	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M34	Transfer from Bin #37 to A1 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M35	Discharge from Bin #36	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M36	Transfer to A1 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M37	Transfer to A1 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M38	Transfer to A1 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
M39	Discharge Into Raw Mill #3	PM	0.2	0.5
		PM <sub>10</sub>	0.1	0.2
M40	Discharge from Gypsum Elevator into Feed Mill #4	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1

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Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
M42	Bin #36 Dust Collector	PM	0.3	0.9
		PM <sub>10</sub>	0.3	0.9
M43	Bin #37 Dust Collector	PM	0.3	0.9
		PM <sub>10</sub>	0.3	0.9
M44	Bin #39 Dust Collector	PM	0.3	0.9
		PM <sub>10</sub>	0.3	0.9
M45	Bin #44 Dust Collector	PM	0.3	0.9
		PM <sub>10</sub>	0.3	0.9
M46	Transfer from Limestone Feeder to Belt Conveyor	PM	0.2	0.5
		PM <sub>10</sub>	0.1	0.2
F4	Long Term Coal Pile	PM	0.2	0.9
		PM <sub>10</sub>	0.1	0.5
F5	Active Coal Pile	PM	0.2	0.6
		PM <sub>10</sub>	0.1	0.3
F6	Discharge into Feed Hopper #5	PM	0.6	1.7
		PM <sub>10</sub>	0.3	0.6
F8	Transfer from #208 Belt to #210 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
F9	Discharge into Feed Hopper #4	PM	0.6	1.7
		PM <sub>10</sub>	0.3	0.6
F11	Discharge from Hopper #4 Vibrating Feeder to #206 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
F12	Discharge from Hopper #5 Vibrating Feeder to #206 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
F13	Transfer from #206 Belt to #208 Belt	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
F14	Transfer from Stacker Belt to Active Coal Pile	PM	0.6	1.7
		PM <sub>10</sub>	0.3	0.6
F15	Unloading into Long Term Coal Pile	PM	0.5	1.2
		PM <sub>10</sub>	0.2	0.5
F16	Transfer from Long Term Coal Pile to Active Pile	PM	0.5	1.2
		PM <sub>10</sub>	0.2	0.5
F17	Transfer from Coal	PM	0.2	0.6

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	Feeders to Underbelt	PM <sub>10</sub>	0.1	0.2
F18	Railcar Unloading into Coal Hoppers 4 and 5	PM	0.6	2.7
		PM <sub>10</sub>	0.3	1.0
F19, F20	LWDF Tanks Thermal Oxidizer and Carbon Adsorption System	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.2
		SO <sub>2</sub>	0.1	0.1
		VOC	16.9	3.0
		CO	0.5	2.0
		NO <sub>x</sub>	0.6	2.4
		Xylene	1.3	0.3
		Toluene	0.7	0.2
		Methylene Chloride	0.1	0.1
		Ethyl Benzene	0.2	0.1
		Styrene	0.1	0.1
		Tetrachloroethane	0.1	0.1
		1,1,2-trichloroethane	0.1	0.1
		Benzene	0.1	0.1
S1	Truck Loadout DC #31	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
S3	Truck Loadout DC #49	PM	0.7	3.0
		PM <sub>10</sub>	0.7	3.0
S4	Kaiser Silos DC #21	PM	0.5	2.1
		PM <sub>10</sub>	0.5	2.1
S5	Kaiser Silos DC #22	PM	0.2	0.7
		PM <sub>10</sub>	0.2	0.7
S6	Delta Silo DC #23	PM	0.6	2.5
		PM <sub>10</sub>	0.6	2.5
S7	Rail Silos DC #24	PM	0.7	3.0
		PM <sub>10</sub>	0.7	3.0
S8	Kaiser Silos DC #29	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
S9	Kaiser Silos DC #30	PM	0.2	0.7
		PM <sub>10</sub>	0.2	0.7
S10	Rail Silos DC #25	PM	0.4	1.6
		PM <sub>10</sub>	0.4	1.6
S11	Packer DC #26	PM	0.7	3.0
		PM <sub>10</sub>	0.7	3.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
S12	Packer DC #27	PM	0.6	2.5
		PM <sub>10</sub>	0.6	2.5
S13	Truck Loadout DC #28	PM	0.5	2.0
		PM <sub>10</sub>	0.5	2.0
S14	Bins 26 and 27 Dust Collector	PM	1.1	4.5
		PM <sub>10</sub>	1.1	4.5
C1	Clinker Transfer Tower Baghouse	PM	1.8	7.6
		PM <sub>10</sub>	1.8	7.6
C2	Outside Clinker Truck Unloading	PM	1.3	5.4
		PM <sub>10</sub>	0.5	1.9
C3	Outside Clinker Reclaim Hopper Loading	PM	0.6	2.3
		PM <sub>10</sub>	0.2	0.8
C4	Outside Clinker Storage Pile	PM	0.1	0.3
		PM <sub>10</sub>	0.1	0.2
C5	Discharge from Clinker Reclaim Hopper	PM	0.6	2.3
		PM <sub>10</sub>	0.2	0.8
C6	Clinker Railcar and Truck Hopper Loading	PM	0.2	0.8
		PM <sub>10</sub>	0.1	0.3
C7	Clinker Discharge to Railcar/Truck	PM	0.2	0.8
		PM <sub>10</sub>	0.1	0.3
C8	Transfer from Reclaim Belt to #7 Belt	PM	0.6	2.3
		PM <sub>10</sub>	0.2	0.8
C9	Transfer to #7 Belt	PM	0.2	0.6
		PM <sub>10</sub>	0.1	0.2
C10	Transfer from #7 Belt to #8 Belt	PM	0.7	2.8
		PM <sub>10</sub>	0.3	1.0
C11	Transfer from #8 Belt to #9 Belt	PM	0.9	3.6
		PM <sub>10</sub>	0.3	1.3
C14	B Belt Dust Collector	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
C15	Discharge from #2 Clinker Bin to B Belt	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
C16	Discharge into #2 Clinker Bin	PM	0.9	3.6
		PM <sub>10</sub>	0.3	1.3
C17	Transfer from #9 Belt	PM	0.9	3.6



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Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		PM <sub>10</sub>	0.3	1.3
C18	Clinker Dust Elevator Collector	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
C19	Discharge from #1 Clinker Bin	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
C20	Transfer to Belt Conveyor	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
C21	Discharge into #1 Clinker Bin	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
C26	West Clinker Silo Dust Collector	PM	0.8	3.2
		PM <sub>10</sub>	0.8	3.2
C27	4A2 Belt Dust Collector	PM	0.6	2.7
		PM <sub>10</sub>	0.6	2.7
C28	Transfer to 4A Belt	PM	0.2	0.7
		PM <sub>10</sub>	0.1	0.3
C32	East Clinker Silo Dust Collector	PM	0.8	3.2
		PM <sub>10</sub>	0.8	3.2
C34	West Clinker Tank Dust Collector	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
C36	Discharge into Clinker Elevator	PM	1.7	7.4
		PM <sub>10</sub>	0.6	2.6
C37	Discharge into Clinker Elevator	PM	0.2	0.5
		PM <sub>10</sub>	0.1	0.2
C41	Off-SPEC Bin and Ancillary Equipment Dust Collector	PM	0.4	1.4
		PM <sub>10</sub>	0.4	1.4
C42	Clinker Dome Dust Collector	PM	0.6	1.9
		PM <sub>10</sub>	0.6	1.9
C43	Reclaim Belt Dust Collector	PM	0.2	0.5
		PM <sub>10</sub>	0.2	0.5
C44	Off-Spec Bin Dust Collector	PM	0.17	0.75
		PM <sub>10</sub>	0.17	0.75
C45	Clinker Silo Baghouse	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
C46	Clinker Silo Baghouse	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
R1	Truck Unloading for Sand/Iron Ore	PM	1.9	8.0
		PM <sub>10</sub>	0.7	2.8

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
R2	Chalk Storage Pile	PM	0.1	0.3
		PM <sub>10</sub>	0.1	0.2
R3	Discharge from Chalk Feeder	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
R4	Discharge from Gypsum Feeder	PM	0.3	1.0
		PM <sub>10</sub>	0.1	0.4
R5	Gypsum Storage Pile	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
R6	Discharge from Sand/Iron-ore Feeder	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
R8	Sand/Iron Ore Storage Transfer	PM	0.4	1.5
		PM <sub>10</sub>	0.2	0.5
R9	Discharge from Emergency Feeder	PM	0.3	1.0
		PM <sub>10</sub>	0.1	0.4
R10	Discharge of Gypsum Belt	PM	0.8	3.2
		PM <sub>10</sub>	0.3	1.2
R11	Discharge into Secondary Crusher	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
R12	Secondary Crusher	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
R13	Secondary Crusher Discharge	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
R14	Transfer to #2 Belt	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
R15	Discharge from Gypsum Hopper	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
R16	Gypsum Truck Discharge into Hopper	PM	0.8	3.2
		PM <sub>10</sub>	0.3	1.2
R17	Long Term Sand Pile	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.2
R18	Iron Ore Storage Pile	PM	0.2	0.6
		PM <sub>10</sub>	0.1	0.3
R19	Sand Storage Pile	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
R20	Emissions from Haul Roads	PM	13.1	47.2
		PM <sub>10</sub>	3.6	13.4
R22	Portable Crusher	PM	0.3	1.3
		PM <sub>10</sub>	0.3	1.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		SO <sub>2</sub>	0.2	0.8
		VOC	0.2	0.9
		CO	0.6	2.3
		NO <sub>x</sub>	2.5	10.6
R24	Transfer from Portable Crusher to Main Conveyor	PM	0.3	1.3
		PM <sub>10</sub>	0.2	0.5
R25	Emergency Gypsum Storage Pile	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
Q1	Quarry Haul Road	PM	23.5	102.8
		PM <sub>10</sub>	5.133	22.5
Q2	Primary Crusher	PM	0.5	1.9
		PM <sub>10</sub>	0.5	1.9
Q3	Quarry Belt Turning Point Transfer from 2N to 1N	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
Q4	Transfer from Belt 1N to Tripper Belt	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
Q5	Discharge of Tripper Belt to Chalk Storage	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
Q6	Scraper Dumping to Auxiliary System	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.2
Q7	Hopper 3 Discharge to 1.12 Belt (Auxiliary System)	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.2
Q8	Auxiliary Crusher	PM	1.1	4.7
		PM <sub>10</sub>	0.5	2.2
Q9	Discharge of Belt 1 to Tripper Belt	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.2

\*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

\*\*Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

‡ While it is assumed that these metals are indeed emitted, as they are naturally occurring metals present in the raw materials used to manufacture cement, Ash Grove was not able to calculate an emission rate. Ash Grove requests the use of the particulate matter emission rate of 19.5 lb/hr and 85.41 tpy for Kiln 1 and 2, 27.0 lb/hr and 118.3 tpy for Kiln 3, as stated in the HWC

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NESHAP (September 29, 1999, 64 FR 52879) preamble be incorporated as limits for nickel and cobalt.

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### **SECTION III: PERMIT HISTORY**

Permit #75-A was issued to Arkansas Cement Corporation Foreman Production facilities on or about September 21, 1971. This permit allowed the installation of three "Precipitair" electrostatic precipitators and supporting equipment at the existing facility. Proposed emissions were 29.58 lb/hr of particulates.

Permit #75-A (modification) allowed the facility to use coal instead of natural gas as the primary fuel to fire the three cement kilns and to replace the three previously approved electrostatic precipitators. This amendment was issued on September 15, 1976.

Permit #75-A (modification) was issued on March 26, 1982. This modification allowed Arkansas Cement to install a gravel bed filter to control particulate discharge from the clinker coolers to replace the multiclone that was being used. Permitted emission rates dropped from 475 lb/hr to 25 lb/hr of particulate.

Permit #75-AR-3 was issued on May 27, 1983, and it rescinded the modification issued on March 26, 1982, because the facility decided to install a Fuller fabric filter with heat recovery instead of the gravel bed filter. This modification also included the replacement of part of the clinker handling system and the installation of a baghouse to control emissions generated at this crossover point. This modification added 1 lb/hr of particulate emissions.

Permit #75-AR-4 was issued on January 29, 1988. This modification changed the name of the facility to Ash Grove Cement Company and consolidated the existing emissions sources into one permit and placed restrictions on the use of waste-derived fuel at this facility. This permit allowed emissions of 99.9 lb/hr of TSP, 787 lb/hr of SO<sub>2</sub>, 39 lb/hr of chlorine, 0.048 lb/hr of lead, and 0.006 lb/hr of chromium.

Permit #75-AR-5 was issued on June 30, 1989. This permit allowed Ash Grove to burn solid hazardous waste in the cement kilns. This permit allowed emissions of 92.2 lb/hr TSP, 1574 lb/hr of SO<sub>2</sub>, 164.6 lb/hr of HCl, 0.22 lb/hr of lead, and 0.316 lb/hr of chromium.

Permit #75-AR-6 was issued on July 8, 1991. This permit allowed Ash Grove to change the outlet nozzles of the ESPs so that each kiln could vent to a single stack. Emissions were not increased due to this modification.

Permit #75-AR-7 was issued on November 13, 1991. This modification allowed all sources, regardless of size, to be permitted. No changes in operation were made. Emissions consisted of 553 tpy TSP, 6,894.1 tpy SO<sub>2</sub>, 721 tpy HCl, 0.964 tpy lead, and 1.39 tpy chromium.

Permit #75-AR-8 was issued on June 15, 1994. This permit covered the installation of CEMS required by the BIF rule. Permit #75-AR-7 was modified so that the Air Permit monitoring requirements for SO<sub>2</sub>, NO<sub>x</sub>, and CO could be satisfied by the new CEMS. This modification also added two product storage silos and related materials handling equipment to improve the loading and shipping of finished product, and modified four existing dust control baghouses in a manner

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that resulted in four new point discharge stacks. The carbon adsorption system on the liquid waste fuel storage tanks was replaced by a liquid nitrogen recovery condenser. These changes did not result in any changes to the emission rates at this facility.

Permit #75-AR-9 was issued on February 11, 1998. This modification authorized Ash Grove to burn waste tires as fuel. Emission rates for SO<sub>2</sub> were increased and emission rates for NO<sub>x</sub> and CO were added. Emission totals listed in this permit were 567 tpy PM<sub>10</sub>, 5,740 tpy SO<sub>2</sub>, 1,183 tpy CO, 9,080 tpy NO<sub>x</sub>, 0.964 tpy lead, and 3.0 tpy VOC.

Permit 1235-AR-1 was issued on November 7, 1995. This permit is for the limestone quarry located at the Ash Grove site. The requirements for this quarry are being incorporated into this permit. The quarry is permitted to emit 4.3 lb/hr and 19.0 tpy of PM/PM<sub>10</sub>.

Permit 75-AOP-R0 was the initial Title V permit issued to Ash Grove Cement in Foreman, Arkansas. This permit allowed for several changes at this facility. The portable crusher (SN-R22) was permitted for the first time. Ash Grove installed 10 new LWDF tanks and changed the control device to a thermal oxidizer with a carbon adsorption backup system. A clinker storage dome was added to the facility and the ESPs used to control emissions from the kilns were refurbished. Also, the quarry (formerly permitted under permit #1235-AR-1) which supplies limestone for use in the cement kilns was included in this permit. The permit also incorporated the requirements of 40 CFR Part 63, Subpart LLL, National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry, and 40 CFR Part 63, Subpart EEE, National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.

Permit 75-AOP-R1 was issued on May 30, 2003. This modification allowed Ash Grove to construct a new cement kiln dust (CKD) handling system (SN-P32, SN-P33, SN-P34, SN-P35 and SN-P36) and remove baghouses P18 and P19. This system allowed the CKD to be pneumatically conveyed across the highway to a new CKD landfill and it also allowed some of the CKD to be recycled to kiln #3. This modification resulted in net PM/PM<sub>10</sub> emissions increases of 0.8 lb/hr and 2.6 tpy from the CKD handling equipment and 4 proposed new fabric filter dust collectors. Also, Ash Grove constructed a baghouse (SN-C44). This change resulted in an increase of PM/PM<sub>10</sub> emissions of 0.17 lb/hr and 0.75 tpy. Finally, Ash Grove Cement Company added 3 drag conveyors and replaced 2 bucket conveyors and a belt conveyor that were part of the clinker handling system. The two bucket conveyors were the number 6 and number 7 bucket conveyors. The belt conveyor was the 440 belt. These conveyors are subject to all applicable sections of 40 CFR 63, Subpart LLL. No additional emissions are resulted from this modification.

Permit 75-AOP-R2 was issued on May 4, 2005. This modification combined and incorporated several requests for minor modifications to the Title V permit. This modification allowed for a redesign of the CKD handling system (SN-P32 through SN-P36) and the addition of P37. It was discovered that the system required additional conveying air. This modification also allowed Ash Grove to install a belt conveyor with integrated dust collector (SN-P38) to the CKD handling system.

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Ash Grove has been given approval to manufacture a new product named DURACEM OW. Manufacture of this product will result in no increase in process emissions, however; there will be an increase in fugitive emissions from the haul roads (SN-R20). Finally, the facility replaced a bucket elevator in the Chalk Dryer System with a drag conveyor. No additional emissions occurred as a result of this change.

These changes resulted in net emissions increases of 1.5 tpy of PM and 3.1 tpy PM<sub>10</sub> emissions from this facility.

Permit 75-AOP-R3 was issued on August 29, 2005. This modification allowed Ash Grove to install an additional baghouse for bins 26 and 27. The increased air flow resulting from installation of this new baghouse caused potential emissions increased by 4.5 tpy PM<sub>10</sub>. This modification also corrected typographical errors found in 75-AOP-R2.

Permit 75-AOP-R4 was issued on January 12, 2006. Hydrogen chloride emissions were increased to match the emission rates allowed by 40 CFR 63, Subpart EEE. Other HAP emission rates were increased based on recent stack testing. Permitted increases were 597.7 tpy hydrogen chloride, 0.16 tpy acrylonitrile, 1.55 tpy benzene, 0.15 tpy bezidine, 0.11 tpy toluene, 0.16 tpy vinyl chloride. Ash Grove also changed the minimum kVa for each electrostatic precipitator based on data collected during the comprehensive performance test. The new minimum 3-hour rolling average kVa values are 198, 202, and 101 for kilns 1, 2, and 3 respectively.

Permit 75-AOP-R5 was issued on May 12, 2006. This modification allowed Ash Grove to install an additional baghouse (SN-P-39) on the 500 ton CKD Bin (SN-P35) and to replace a conveyor belt and add two baghouses (SN-C45 and C-46) to the clinker silos. These changes resulted in a permitted emissions increase of 2.4 tpy PM/PM<sub>10</sub>.

## SECTION IV: SPECIFIC CONDITIONS

### SN-P1

Kiln #1

#### Source Description

This kiln is used to produce the clinker product. It may be fired by coal, natural gas, tire-derived fuel, liquid waste-derived fuel, or solid waste-derived fuel. This kiln can produce up to 50 tons per hour of clinker. Particulate emissions are controlled by an electrostatic precipitator with an efficiency of 99%.

#### Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 5, 6 and 8. [Regulation 19, §19.501 et seq., effective December 19, 2004 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	19.5	85.4
VOC	9.6	42.1

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 4. [Regulation 19, §19.501 et seq., effective December 19, 2004 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
SO <sub>2</sub>	849.0	1960.0
CO	172.0	368.0
NO <sub>x</sub>	889.0	2405.0

3. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 8. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]



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Pollutant	lb/hr	tpy
PM	19.5	85.4
1,1,1-trichloroethane	0.01	0.02
1,1,2,2-tetrachloroethane	0.01	0.03
1,1,2-trichloroethane	0.01	0.04
1,1-dichloroethane	0.01	0.02
1,1-dichloroethene	0.16	0.69
1,2,4-trichlorobenzene	0.08	0.35
1,2-dichloroethane	0.01	0.05
1,2-dichloropropane	0.01	0.04
1,2-epoxybutane	0.01	0.01
1,3-butadiene	0.02	0.07
1,4-dichlorobenzene	0.19	0.18
1,4-phenylene-diamine	0.01	0.03
2,4,5-trichlorophenol	0.01	0.03
2,4,6-trichlorophenol	0.01	0.05
2,4-dinitrophenol	0.03	0.11
2,4-dinitrotoluene	0.02	0.01
2-butanone	0.21	0.91
3,3-dichlorobenzidine	0.01	0.04
3,3-dimethoxybenzidine	0.01	0.04
4-methyl-2-pentanone	0.02	0.09
4-nitrophenol	0.02	0.07
Acrylonitrile	0.03	0.11
allyl chloride	0.19	0.84
Aniline	0.005	0.02
Antimony	8.80	38.5

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Pollutant	lb/hr	tpy
Arsenic	0.00258	0.00112
Benzene	0.22	0.95
Benzidine	0.02	0.07
Beryllium	0.00028	0.00123
bis(2-chloroethyl)ether	0.01	0.03
bis(2-ethylhexyl)phthalate	0.004	0.02
Bromodichloromethane	0.01	0.02
Bromoform	0.01	0.03
Bromomethane	0.26	1.15
Cadmium	.0307	0.134
carbon disulfide	0.08	0.37
carbon tetrachloride	0.01	0.02
Chlorine	0.00162	0.00780
Chlorobenzene	0.17	0.73
Chloroethane	1.05	4.59
Chloroform	0.01	0.06
Chloromethane	0.12	0.51
Chromium	0.00578	0.0253
cis-1,3-dichloropropene	0.01	0.05
cobalt <sup>3+</sup>	19.5	85.41
Cumene	0.01	0.03
Dimethylphthalate	0.002	0.01
ethyl acrylate	0.11	0.46
Ethylbenzene	0.09	0.38
ethylene dibromide	0.01	0.01
Hexachlorobenzene	0.01	0.02
Hexachlorobutadiene	0.01	0.03

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Pollutant	lb/hr	tpy
Hexachlorocyclopentadiene	0.01	0.03
Hexachloroethane	0.01	0.04
hydrogen chloride	50.0	219.0
Hydroquinone	0.01	0.05
Iodomethane	0.03	0.13
Lead	0.06	0.263
Manganese	0.0430	0.188
Mercury	0.0694	0.304
methyl methacrylate	0.01	0.05
methylene chloride	2.24	9.80
Naphthalene	0.29	1.29
n-hexane	0.06	0.27
nickel†	19.5	85.41
Nitrobenzene	0.005	0.02
N-nitrosodiphenylamine	0.03	0.01
N-nitrosomorpholine	0.01	0.04
ortho-anisidine	0.01	0.04
ortho-toluidine	0.04	0.02
o-xylene	0.08	0.35
Pentachlorophenol	0.02	0.07
Phenol	0.05	0.22
Selenium	0.0075	0.0329
Styrene	0.03	0.12
tert-butyl methyl ether	0.01	0.02
Tetrachloroethene	0.06	0.020.28
Toluene	0.04	0.19
trans-1,3-dichloropropene	0.01	0.05

Pollutant	lb/hr	tpy
Trichloroethene	0.06	0.28
vinyl acetate	0.01	0.02
vinyl bromide	0.01	0.06
vinyl chloride	0.44	1.91
xylene	0.21	0.92

‡ While it is assumed that these metals are indeed emitted, as they are naturally occurring metals present in the raw materials used to manufacture cement, Ash Grove was not able to calculate an emission rate. Ash Grove requests the use of the particulate matter emission rate as limits for nickel and cobalt.

4. The permittee shall maintain continuous emission monitors (CEMs) to record SO<sub>2</sub>, CO, and NO<sub>x</sub> emissions at this source. These CEMs shall be operated in accordance with all applicable conditions of the Department's Continuous Emission Monitoring Systems Conditions as found in Appendix A of this permit. [Regulation 19, §19.703, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee shall operate the electrostatic precipitators used to control particulate emissions at this source at a minimum kVA of electrical power input to the electrostatic precipitator. This minimum kVA rating shall be the sum of the kVA levels for the individual field of the ESP and shall be the level determined by the most recent passing stack test performed. Ash Grove shall notify the Department, in writing, when the kVA level is changed. This notification shall include a copy of the test results and the new value for the rating. Compliance shall be demonstrated through compliance with Specific Condition #10. [Regulation 19, §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]
6. The permittee shall not produce more than 37,200 tons of clinker per month at this source. Compliance shall be demonstrated through compliance with the record keeping requirements set forth in Specific Condition 7. [Regulation 19, §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]
7. The permittee shall maintain records of the amount of clinker produced at this source. These records shall be kept on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. A rolling twelve month total of these amounts shall be kept on site and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision 7. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]

8. The permittee shall not exceed the feed rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 9. [Regulation 19, §19.705, Regulation 18, §18.1004, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

<b>Fuel</b>	<b>Monthly Amount</b>
Natural Gas	294.6 MMft <sup>3</sup>
Coal	11,160 ton
Tire-derived Fuel	1,488 ton
LWDF	11,160 ton
SWDF	3,720 ton

LWDF = Liquid Waste-derived Fuel

SWDF = Solid Waste-derived Fuel

9. The permittee shall maintain records of the types and amounts of fuel used at this source. These records shall be kept on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. A rolling twelve month total of these amounts shall be kept on site and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. The permittee shall record the sum of the electrical power input in kilovolt-amperes (kVA) to each field of the electrostatic precipitator used to control particulate emissions from this source. A reading of the electrical power input to each field of the electrostatic precipitator shall be taken a minimum of once per day of operation. These records shall be kept on site and made available to Department personnel upon request. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
11. Visible emissions from this source shall not exceed 20% opacity. No later than September 30, 2002, compliance shall be demonstrated with a continuous opacity monitor. Until installation and certification of the continuous opacity monitor occurs, the permittee shall continue to demonstrate compliance through compliance with Plantwide Condition #10. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR Part 63.1209(a)(1), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-P2**  
**Kiln #2**

**Source Description**

This kiln is used to produce the clinker product. It may be fired by coal, natural gas, tire-derived fuel, liquid waste-derived fuel, or solid waste-derived fuel. This kiln can produce up to 50 tons per hour of clinker. Particulate emissions are controlled by an electrostatic precipitator with an efficiency of 99%.

**Specific Conditions**

12. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 16, 17 and 18. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM <sub>10</sub>	19.5	85.4
VOC	9.6	42.1

13. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 15. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
SO <sub>2</sub>	753.0	1690.0
CO	152.0	333.0
NO <sub>x</sub>	882.0	2450.0

14. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 18. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	19.5	85.4
1,1,1-trichloroethane	0.01	0.02
1,1,2,2-tetrachloroethane	0.01	0.03

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Pollutant	lb/hr	tpy
1,1,2-trichloroethane	0.01	0.04
1,1-dichloroethane	0.01	0.02
1,1-dichloroethene	0.16	0.69
1,2,4-trichlorobenzene	0.08	0.35
1,2-dichloroethane	0.01	0.05
1,2-dichloropropene	0.01	0.02
1,2-epoxybutane	0.01	0.01
1,3-butadiene	0.02	0.07
1,4-dichlorobenzene	0.19	0.18
1,4-phenylene-diamine	0.01	0.03
2,4,5-trichlorophenol	0.01	0.03
2,4,6-trichlorophenol	0.01	0.05
2,4-dinitrophenol	0.03	0.11
2,4-dinitrotoluene	0.02	0.01
2-butanone	0.21	0.91
3,3-dichlorobenzidine	0.01	0.04
3,3-dimethoxybenzidine	0.01	0.04
4-methyl-2-pentanone	0.02	0.09
4-nitrophenol	0.02	0.07
acrylonitrile	0.03	0.11
allyl chloride	0.19	0.84
aniline	0.005	0.02
antimony	8.80	38.5
arsenic	0.00258	0.00112
benzene	0.22	0.95
benzidine	0.02	0.07
beryllium	0.00028	0.00123

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Pollutant	lb/hr	tpy
bis(2-chloroethyl)ether	0.01	0.03
bis(2-ethylhexyl)phthlate	0.004	0.02
bromodichloromethane	0.01	0.02
bromoform	0.01	0.03
bromomethane	0.26	1.15
cadmium	0.0307	0.134
carbon disulfide	0.08	0.37
carbon tetrachloride	0.01	0.02
chlorine	0.00162	0.00780
chlorobenzene	0.17	0.73
chloroethane	1.05	4.59
chloroform	0.01	0.06
chloromethane	0.12	0.51
chromium	0.00578	0.0253
cis-1,3-dichloropropene	0.01	0.05
cobalt†	19.5	85.41
cumene	0.01	0.03
dimethylphthalate	0.002	0.01
ethyl acrylate	0.11	0.46
ethylbenzene	0.09	0.38
ethylene dibromide	0.01	0.01
hexachlorobenzene	0.01	0.02
hexachlorobutadiene	0.01	0.03
hexachlorocyclopentadiene	0.01	0.03
hexachloroethane	0.01	0.04
hydrogen chloride	50.0	219.0
hydroquinone	0.01	0.05



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Pollutant	lb/hr	tpy
iodomethane	0.03	0.13
manganese	0.0430	0.188
lead	0.06	0.263
mercury	0.0694	0.304
methyl methacrylate	0.01	0.05
methylene chloride	2.24	9.80
naphthalene	0.29	1.29
n-hexane	0.06	0.27
nickel†	19.5	85.41
nitrobenzene	0.005	0.02
N-nitrosodiphenylamine	0.03	0.01
N-nitrosomorpholine	0.01	0.04
ortho-anisidine	0.01	0.04
ortho-toluidine	0.04	0.02
o-xylene	0.08	0.35
pentachlorophenol	0.02	0.07
phenol	0.05	0.22
selenium	0.0075	0.0329
styrene	0.03	0.12
tert-butyl methyl ether	0.01	0.02
tetrachloroethene	0.06	0.28
toluene	0.04	0.19
trans-1,3-dichloropropene	0.01	0.05
trichloroethene	0.06	0.28
vinyl acetate	0.01	0.02
vinyl bromide	0.01	0.06
vinyl chloride	0.44	1.91

Pollutant	lb/hr	tpy
xylene	0.21	0.92

‡ While it is assumed that these metals are indeed emitted, as they are naturally occurring metals present in the raw materials used to manufacture cement, Ash Grove was not able to calculate an emission rate. Ash Grove requests the use of the particulate matter emission rate as limits for nickel and cobalt.

15. The permittee shall maintain continuous emission monitors (CEMs) to record SO<sub>2</sub>, CO, and NO<sub>x</sub> emissions at this source. These CEMs shall be operated in accordance with all applicable conditions of the Department's Continuous Emission Monitoring Systems Conditions as found in Appendix A of this permit. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
16. The permittee shall operate the electrostatic precipitators used to control particulate emissions at this source at a minimum kVA of electrical power input to the electrostatic precipitator. This minimum kVA rating shall be the sum of the kVA levels for the individual field of the ESP and shall be the level determined by the most recent passing stack test performed. Ash Grove shall notify the Department, in writing, when the kVA level is changed. This notification shall include a copy of the test results and the new value for the rating. Compliance shall be demonstrated through compliance with Specific Condition #21. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]
17. The permittee shall not produce more than 37,200 tons of clinker per month at this source. Compliance shall be demonstrated through compliance with the record keeping requirements set forth on Specific Condition 19. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]
18. The permittee shall not exceed the feed rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 20. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]

<b>Fuel</b>	<b>Monthly Amount</b>
Natural Gas	294.6 MMft <sup>3</sup>
Coal	11,160 ton
Tire-derived Fuel	1,488 ton
LWDF	11,160 ton
SWDF	3,720 ton

LWDF = Liquid Waste-derived Fuel

SWDF = Solid Waste-derived Fuel

19. The permittee shall maintain records of the amount of clinker produced at this source. These records shall be kept on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. A rolling twelve month total of these amounts shall be kept on site and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]
20. The permittee shall maintain records of the types and amounts of fuel used at this source. These records shall be kept on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. A rolling twelve month total of these amounts shall be kept on site and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
21. The permittee shall record the sum of the electrical power input in kilovolt-amperes (kVA) to each field of the electrostatic precipitator used to control particulate emissions from this source. A reading of the electrical power input to each field of the electrostatic precipitator shall be taken a minimum of once per day of operation. These records shall be kept on site and made available to Department personnel upon request. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
22. Visible emissions from this source shall not exceed 20% opacity. No later than September 30, 2002, compliance shall be demonstrated with a continuous opacity monitor. Until installation and certification of the continuous opacity monitor occurs, the permittee shall continue to demonstrate compliance through compliance with Plantwide Condition #10. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR Part 63.1209(a)(1), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-P3**  
**Kiln #3**

**Source Description**

This kiln is used to produce the clinker product. It may be fired by coal, natural gas, tire-derived fuel, liquid waste-derived fuel, or solid waste-derived fuel. This kiln can produce up to 70 tons per hour of clinker. Particulate emissions are controlled by an electrostatic precipitator with an efficiency of 99%.

**Specific Conditions**

23. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Conditions 27, 28, and 29. [§19.501 et seq. Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	27.0	118.3
VOC	13.44	58.87

24. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 26. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>Tpy</b>
SO <sub>2</sub>	961.0	2090.0
CO	220.0	482.0
NO <sub>x</sub>	1568.0	4231.0

25. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 29. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	27.0	118.3
1,1,1-trichloroethane	0.01	0.01
1,1,2,2-tetrachloroethane	0.01	0.04
1,1,2-trichloroethane	0.01	0.03
1,1-dichloroethane	0.01	0.01

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Pollutant	lb/hr	tpy
1,1-dichloroethene	0.01	0.02
1,2,4-trichlorobenzene	0.01	0.02
1,2-dichloroethane	1.67	7.32
1,2-dichloropropane	0.01	0.04
1,2-epoxybutane	0.07	0.3
1,3-butadiene	0.49	2.13
(cis, trans)1,3-dichloropropene	0.03	0.13
1,4-dichlorobenzene	0.01	0.01
1,4-phenylene-diamine	0.06	0.26
2,4,5-trichlorophenol	0.01	0.02
2,4,6-trichlorophenol	0.17	0.76
2,4-dinitrophenol	0.01	0.03
2,4-dinitrotoluene	0.01	0.01
2-butanone	0.2	0.87
3,3-dichlorobenzidine	0.01	0.01
3,3-dimethoxybenzidine	0.01	0.02
4-methyl-2-pentanone	0.01	0.03
4-dinitrophenol	0.01	0.03
acrylonitrile	0.03	0.14
allyl chloride	0.15	0.66
Aniline	0.01	0.02
antimony	12.9	56.6
arsenic	0.0005	0.00219
benzene	0.37	1.63
benzidine	0.02	0.07
beryllium	0.00007	0.000274
bis(2-chloroethyl)ether	0.01	0.02
bis(2-ethylhexyl)phthlate	0.74	3.24
bromodichloromethane	0.02	0.09
bromoform	0.01	0.06
bromomethane	0.26	1.13
cadmium	0.00373	0.0163
carbon disulfide	0.01	0.01
carbon tetrachloride	0.01	0.02
chlorine	1.34	5.85
chlorobenzene	0.01	0.06
chloroethane	0.01	0.01
chloroform	0.22	0.95
chloromethane	1.95	8.53
chromium	0.00403	0.0177
Cobalt□	27.0	118.3

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
cumene	0.01	0.04
dimethylphthalate	0.01	0.01
ethyl acrylate	0.13	0.58
ethylbenzene	0.01	0.05
ethylene dibromide	0.01	0.02
hexachlorobenzene	0.01	0.01
hexachlorobutadiene	0.01	0.03
hexachlorocyclopentadiene	0.01	0.02
hexachloroethane	0.01	0.02
hydrogen chloride	71.0	311.0
hydroquinone	0.02	0.07
iodomethane	0.01	0.03
Lead	0.10	0.438
m/p xylene	0.43	1.89
manganese	0.0602	0.264
mercury	0.0759	0.332
methyl methacrylate	0.01	0.05
methylene chloride	0.24	1.03
naphthalene	0.38	1.68
n-hexane	0.07	0.33
nickel	27.0	118.3
nitrobenzene	0.02	0.07
N-nitrosodiphenylamine	0.01	0.01
N-nitrosomorpholine	0.01	0.05
ortho-anisidine	0.01	0.03
ortho-toluidine	0.01	0.01
o-xylene	0.2	0.86
pentachlorophenol	0.01	0.01
phenol	0.09	0.38
selenium	0.0105	0.046
styrene	0.01	0.02
tert-butyl methyl ether	0.01	0.01
tetrachloroethene	0.01	0.02
toluene	0.04	0.18
trans-1,3-dichloropropene	0.01	0.02
trichloroethene	0.01	0.03
vinyl acetate	0.01	0.02
vinyl bromide	0.11	0.49
vinyl chloride	0.03	0.14

‡ While it is assumed that these metals are indeed emitted, as they are naturally occurring metals present in the raw materials used to manufacture cement, Ash Grove was not able to calculate an

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emission rate. Ash Grove requests the use of the particulate matter emission rate of 19.5 lb/hr and 85.41 tpy for Kiln 1 and 2, 27.0 lb/hr and 118.3 tpy for Kiln 3, as stated in the HWC NESHAP (September 29, 1999, 64 FR 52879) preamble be incorporated as limits for nickel and cobalt.

26. The permittee shall maintain continuous emission monitors (CEMs) to record SO<sub>2</sub>, CO, and NO<sub>x</sub> emissions at this source. These CEMs shall be operated in accordance with all applicable conditions of the Department's Continuous Emission Monitoring Systems Conditions as found in Appendix A of this permit. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
27. The permittee shall operate the electrostatic precipitators used to control particulate emissions at this source at a minimum kVA of electrical power input to the electrostatic precipitator. This minimum kVA rating shall be the sum of the kVA levels for the individual field of the ESP and shall be the level determined by the most recent passing stack test performed. Ash Grove shall notify the Department, in writing, when the kVA level is changed. This notification shall include a copy of the test results and the new value for the rating. Compliance shall be demonstrated through compliance with Specific Condition 32. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]
28. The permittee shall not produce more than 52,080 tons of clinker per month at this source. Compliance shall be demonstrated through compliance with the record keeping requirements set forth in Specific Condition 30. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]
29. The permittee shall not exceed the feed rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 31. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 and 40 CFR Part 70.6]

<b>Fuel</b>	<b>Monthly Amount</b>
Natural Gas	412.2 MMft <sup>3</sup>
Coal	18,600 tons
Tire-derived Fuel	2,231 ton
LWDF	11,160 ton
SWDF	3,720 ton

LWDF = Liquid Waste-derived Fuel

SWDF = Solid Waste-derived Fuel

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30. The permittee shall maintain records of the amount of clinker produced at this source. These records shall be kept on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. A rolling twelve month total of these amounts shall be kept on site and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision# 7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]
31. The permittee shall maintain records of the types and amounts of fuel used at this source. These records shall be kept on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. A rolling twelve month total of these amounts shall be kept on site and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision 7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
32. The permittee shall record the sum of the electrical power input in kilovolt-amperes (kVA) to each field of the electrostatic precipitator used to control particulate emissions from this source. A reading of the electrical power input to each field of the electrostatic precipitator shall be taken a minimum of once per day of operation. These records shall be kept on site and made available to Department personnel upon request. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
33. Visible emissions from this source shall not exceed 20% opacity. No later than September 30, 2002, compliance shall be demonstrated with a continuous opacity monitor. Until installation and certification of the continuous opacity monitor occurs, the permittee shall continue to demonstrate compliance through compliance with Plantwide Condition #9. [§19.703 of Regulation 19, 40 CFR Part 52, Subpart E, 40 CFR Part 63.1209(a)(1), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]



## Transfer points for Pyroprocessing Unit

### Source Description

These are various transfer points associated with the pyroprocessing unit. Emissions from these points are considered uncontrolled and were calculated based on equipment maximum capacity using the formula contained in AP-42 §13.2.4-3 as found in Appendix B.

### Specific Conditions

34. The permittee shall not exceed the emission limits set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

Source	Source Name	Pollutant	lb/hr	tpy
P4	Discharge into Coal Mill #1	PM <sub>10</sub>	0.1	0.1
P5*	Discharge from Kiln #1 to #1 Bucket Conveyor	PM <sub>10</sub>	0.2	0.3
P7	Discharge into Coal Mill #2	PM <sub>10</sub>	0.1	0.1
P8*	Discharge from Kiln #2 to #2 Bucket Conveyor	PM <sub>10</sub>	0.1	0.3
P9	Discharge into Coal Mill #3	PM <sub>10</sub>	0.1	0.1
P10*	Discharge from Kiln #3 to #3 Bucket Conveyor	PM <sub>10</sub>	0.2	0.8
P11*	Discharge from Bin #48	PM <sub>10</sub>	0.1	0.1
P12*	Discharge from Bin #48	PM <sub>10</sub>	0.1	0.1
P13*	Discharge from Bin #47	PM <sub>10</sub>	0.1	0.1
P15*	Baghouse Discharge to #2 Bucket Conveyor	PM <sub>10</sub>	0.2	0.6
P16*	Baghouse Discharge to #3 Bucket Conveyor	PM <sub>10</sub>	0.2	0.6
P20*	Truck Loading of CKD	PM <sub>10</sub>	0.1	0.1
P21	Truck Unloading of CKD	PM <sub>10</sub>	0.1	0.1
P22	Trailer Unloading of CKD	PM <sub>10</sub>	0.1	0.1
P24	Transfer from Main Coal Pile	PM <sub>10</sub>	0.1	0.2
P32*	1500 Ton CKD Storage Bin	PM <sub>10</sub>	0.4	1.6
P33*	CKD Handling Screw Conveyor Bin Vent	PM <sub>10</sub>	0.1	0.4

Source	Source Name	Pollutant	lb/hr	tpy
P34*	Kiln #3 Dust Scoop Bin Vent	PM <sub>10</sub>	0.2	0.5
P35* P39 <sup>1</sup>	CKD Handling 500 Ton Silo Baghouse	PM <sub>10</sub>	0.3	1.1
P36*	Truck Loading of CKD (North of Hwy. 108)	PM <sub>10</sub>	0.1	0.3
P37*	1500 ton CKD Storage Bin	PM <sub>10</sub>	0.3	1.2
P38*	CKD Truck Loadout	PM <sub>10</sub>	0.2	0.6

\*Subject to 40 CFR 63, Subpart LLL

1. These baghouses are interlocked so only one may operate at any time.

35. The permittee shall not exceed the emission rates set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Source Name	Pollutant	lb/hr	tpy
P4	Discharge into Coal Mill #1	PM	0.1	0.2
P5*	Discharge from Kiln #1 to #1 Bucket Conveyor	PM	0.2	0.8
P7	Discharge into Coal Mill #2	PM	0.1	0.1
P8*	Discharge from Kiln #2 to #2 Bucket Conveyor	PM	0.2	0.8
P9	Discharge into Coal Mill #3	PM	0.1	0.1
P10*	Discharge from Kiln #3 to #3 Bucket Conveyor	PM	0.6	2.3
P11*	Discharge from Bin #48	PM	0.1	0.1
P12*	Discharge from Bin #48	PM	0.1	0.1
P13*	Discharge from Bin #47	PM	0.1	0.1
P15*	Baghouse Discharge to #2 Bucket Conveyor	PM	0.4	1.6
P16*	Baghouse Discharge to #3 Bucket Conveyor	PM	0.4	1.6
P20*	Truck Loading of CKD	PM	0.1	0.2
P21	Truck Unloading of CKD	PM	0.1	0.2
P22	Trailer Unloading of CKD	PM	0.1	0.2
P24	Transfer from Main Coal Pile	PM	0.2	0.6

Source	Source Name	Pollutant	lb/hr	tpy
P32*	1500 Ton CKD Storage Bin	PM	0.4	1.6
P33*	CKD Handling Screw Conveyor Bin Vent	PM	0.1	0.4
P34*	Kiln #3 Dust Scoop Bin Vent	PM	0.2	0.5
P35* P39*	CKD Handling 500 Ton Silo Baghouses <sup>1</sup>	PM	0.3	1.1
P36*	Truck Loading of CKD (North of Hwy. 108)	PM	0.1	0.1
P37*	1500 ton CKD Storage Bin	PM	0.3	1.2
P38*	CKD Truck Loadout	PM	0.2	0.6

\*Subject to 40 CFR 63, Subpart LLL

1. These baghouses are interlocked so only one may operate at any time.

36. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
37. SN-P21 and SN-P22 shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at SN-P21 and SN-P22 and the recording of the findings of the visual observations in the facility record. These records shall be kept on site and made available to Department personnel upon request. [§18.901 of Regulation 18]
38. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
39. Visual emissions for SN-P4, P7, P9, and P24 shall not exceed 20 percent opacity. The permittee shall demonstrate compliance with this specific condition by conducting a visible opacity observation of the source at least once each calendar week in which the source operates, and keep a record of these observations. If visible emissions appear to exceed 20 percent opacity, the permittee shall take corrective action, and perform and record the observation again. If visible emissions still appear to exceed 20 percent opacity, the permittee shall conduct a six-minute opacity reading in accordance with the

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EPA reference method No. 9. The records of visible emission observations and results of any method No. 9 reading shall be kept on site for five years and made available to Department personnel upon request. [Regulation 19 §19.503 and 40 CFR 52, Subpart E]

**SN-P6**  
3 Clinker Coolers Baghouse

**Source Description**

This baghouse controls particulate emissions from the clinker coolers. Efficiency is assumed to be 99%.

**Specific Conditions**

40. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 42. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>Tpy</b>
PM <sub>10</sub>	25.0	110.0

41. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 42. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	25.0	110.0

42. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
43. Emissions from this clinker cooler shall not contain particulate matter in excess of 0.050 kg per Mg (0.1 lb per ton) of feed (dry basis) to the kiln and visible emissions from this source shall not exceed 10% opacity. Pursuant to 40 CFR 63.1350(d)(1), compliance shall be demonstrated with a continuous opacity monitor. [40 CFR 63.1345, §19.503 of Regulation 19 and 40 CFR 52, Subpart E]
44. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-P17**  
Bin #49 Sock Filter

**Source Description**

This filter controls particulate emissions resulting from material transfer in and out of this bin. Efficiency is assumed to be 95%.

**Specific Conditions**

45. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 47. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>Tpy</b>
PM <sub>10</sub>	0.5	1.9

46. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 47. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.5	1.9

47. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
48. Emissions from this source shall not exceed 10% opacity. This source is subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
49. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition.

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[§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by  
A.C.A. §8-4-304 and §8-4-311]

**SN-P23**  
**CKD Pile**

**Source Description**

This storage pile has a total area of 40 acres. Emissions from the cement kiln dust pile are controlled by surface watering.

**Specific Conditions**

50. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 52. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>Tpy</b>
PM <sub>10</sub>	0.6	2.6

51. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 52. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	1.2	5.2

52. The permittee shall maintain the area of this storage pile at or below 40 acres. Compliance shall be demonstrated by surveying the boundary perimeter of this pile. The permittee shall demarcate and record the perimeter of this pile with a global positioning system (GPS) instrument. A minimum of once per calendar year, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
53. This source shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at this source in accordance with EPA Method 22. The permittee shall maintain records of the observations performed. These records shall be maintained on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§18.901 of Regulation 18]



## Uncontrolled Transfer points in the Mill Area

### Source Description

The Mill area consists of many different pieces of equipment. The uncontrolled emission rates were found based on equipment maximums using a formula contained in AP-42 page 13.2.4-3 as found in Appendix B.

### Specific Conditions

54. The permittee shall not exceed the emission limits set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Source Name	Pollutant	lb/hr	tpy
M3	Gypsum Discharge into Finish Mill #4	PM <sub>10</sub>	0.1	0.1
M4	Gypsum Discharge to Gypsum Elevator	PM <sub>10</sub>	0.1	0.1
M9	Tripper Discharge into Bins	PM <sub>10</sub>	0.1	0.1
M10	Discharge from Bin #45	PM <sub>10</sub>	0.1	0.1
M11	Discharge into Bin #43	PM <sub>10</sub>	0.1	0.4
M12	Discharge from Bin #44	PM <sub>10</sub>	0.1	0.2
M13	Discharge from Bin #43	PM <sub>10</sub>	0.1	0.4
M14	Transfer to B Belt	PM <sub>10</sub>	0.1	0.4
M15	Transfer to B Belt	PM <sub>10</sub>	0.1	0.1
M21	Discharge from Bin #42	PM <sub>10</sub>	0.1	0.1
M22	Discharge from Bin #41	PM <sub>10</sub>	0.1	0.1
M23	Transfer from Bin #41	PM <sub>10</sub>	0.1	0.1
M24	Discharge from Bin #40	PM <sub>10</sub>	0.1	0.1
M25	Discharge from D Belt into Chalk Dryer	PM <sub>10</sub>	0.1	0.2
M26	Transfer to D Belt	PM <sub>10</sub>	0.1	0.1
M27	Discharge from Bin #39	PM <sub>10</sub>	0.1	0.2
M28	Transfer to Dry Feed Belt	PM <sub>10</sub>	0.1	0.2
M29	Transfer to Dry Feed Belt	PM <sub>10</sub>	0.1	0.1

SN	Source Name	Pollutant	lb/hr	tpy
M30	Transfer from #1 Clinker Bin to Dry Feed Belt	PM <sub>10</sub>	0.2	0.6
M31	Discharge from Bin #38	PM <sub>10</sub>	0.1	0.1
M32	Discharge from Bin #38	PM <sub>10</sub>	0.1	0.1
M33	Discharge from Bin #37	PM <sub>10</sub>	0.1	0.1
M34	Transfer to A1 Belt	PM <sub>10</sub>	0.1	0.1
M35	Discharge from Bin #36	PM <sub>10</sub>	0.1	0.1
M36	Transfer to A1 Belt	PM <sub>10</sub>	0.1	0.1
M37	Transfer to A1 Belt	PM <sub>10</sub>	0.1	0.1
M38	Transfer to A1 Belt	PM <sub>10</sub>	0.1	0.1
M39	Discharge Into Raw Mill #3	PM <sub>10</sub>	0.1	0.2
M40	Discharge from Gypsum Elevator into Feed Mill #4	PM <sub>10</sub>	0.1	0.1
M46	Transfer from Limestone Feeder to Belt Conveyor	PM	0.1	0.2

55. The permittee shall not exceed the emission rates set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Source Name	Pollutant	lb/hr	tpy
M3	Gypsum Discharge into Finish Mill #4	PM	0.1	0.1
M4	Gypsum Discharge to Gypsum Elevator	PM	0.1	0.1
M9	Tripper Discharge into Bins	PM	0.1	0.2
M10	Discharge from Bin #45	PM	0.1	0.1
M11	Discharge into Bin #43	PM	0.3	1.0
M12	Discharge from Bin #44	PM	0.1	0.4
M13	Discharge from Bin #43	PM	0.3	1.0
M14	Transfer to B Belt	PM	0.3	1.0
M15	Transfer to B Belt	PM	0.1	0.1
M21	Discharge from Bin #42	PM	0.1	0.1

SN	Source Name	Pollutant	lb/hr	tpy
M22	Discharge from Bin #41	PM	0.1	0.1
M23	Transfer from Bin #41	PM	0.1	0.1
M24	Discharge from Bin #40	PM	0.1	0.1
M25	Discharge from D Belt into Chalk Dryer	PM	0.2	0.6
M26	Transfer to D Belt	PM	0.1	0.1
M27	Discharge from Bin #39	PM	0.1	0.4
M28	Transfer to Dry Feed Belt	PM	0.1	0.4
M29	Transfer to Dry Feed Belt	PM	0.1	0.1
M30	Transfer from #1 Clinker Bin to Dry Feed Belt	PM	0.4	1.6
M31	Discharge from Bin #38	PM	0.1	0.1
M32	Discharge from Bin #38	PM	0.1	0.1
M33	Discharge from Bin #37	PM	0.1	0.1
M34	Transfer to A1 Belt	PM	0.1	0.1
M35	Discharge from Bin #36	PM	0.1	0.1
M36	Transfer to A1 Belt	PM	0.1	0.1
M37	Transfer to A1 Belt	PM	0.1	0.1
M38	Transfer to A1 Belt	PM	0.1	0.1
M39	Discharge Into Raw Mill #3	PM	0.2	0.5
M40	Discharge from Gypsum Elevator into Feed Mill #4	PM	0.1	0.1
M46	Transfer from Limestone Feeder to Belt Conveyor	PM	0.2	0.5

56. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
57. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources

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for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition.

[§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-M16**  
#2 Finish Mill Baghouse

**Source Description**

This baghouse controls emission from the finish mill. Emissions are estimated to be 0.01 grains/ft<sup>3</sup>. Efficiency is assumed to be 99%.

**Specific Conditions**

58. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 60. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.7	3.0

59. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 60. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.7	3.0

60. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
61. Emissions from this source shall not exceed 10% opacity. This source is subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through daily visible emissions observations using Method 22, corrective action and subsequent visible emissions observations in accordance with 40 CFR 63.1350(e). The visible observation requirement will be superseded if the permittee chooses the use of a continuous opacity monitor or bag leak detection system in place of the visible observations in accordance with 40 CFR 63.1350(m). The permittee shall notify the Department, in writing, of the date a COM or BLDS is put into service at this facility. [§19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]

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62. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition.  
[§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-M17**  
**#2 Finish Mill Discharge Baghouse**

**Source Description**

After milling, the cement is discharged. Grinding aids containing HAPs and VOC are used in these mills. Particulate emissions from this discharge are controlled by a baghouse with an assumed efficiency of 99%.

**Specific Conditions**

63. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 65. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.5	2.0
VOC	3.8	16.3

64. The permittee shall not exceed the emission limit set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 65 and 76. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-203 and §8-3-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.5	2.0
Diethanolamine	0.2	0.6
Ethylene Glycol	0.1	0.2

65. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
66. Emissions from this source shall not exceed 10% opacity. This source is subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through daily visible emissions observations using Method 22, corrective action and subsequent visible emissions observations in accordance with 40 CFR 63.1350(e). The visible observation requirement will be superceded if the permittee chooses the use of a continuous opacity monitor or bag leak detection system in place of the visible observations in accordance with 40 CFR 63.1350(m). The permittee shall notify the Department, in writing, of the date a COM or

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BLDS is put into service at this facility. [§19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]

67. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]



**SN-M18**  
#4 Finish Mill Baghouse

**Source Description**

After milling, the cement is discharged. Emissions from this discharge are controlled by a baghouse with an assumed efficiency of 99%.

**Specific Conditions**

68. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 70. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	1.1	4.7

69. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 70. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	1.1	4.7

70. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
71. Emissions from this source shall not exceed 10% opacity. This source is subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through daily visible emissions observations using Method 22, corrective action and subsequent visible emissions observations in accordance with 40 CFR 63.1350(e). The visible observation requirement will be superseded if the permittee chooses the use of a continuous opacity monitor or bag leak detection system in place of the visible observations in accordance with 40 CFR 63.1350(m). The permittee shall notify the Department, in writing, of the date a COM or BLDS is put into service at this facility. [§19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]

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72. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition.  
[§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-M19**  
#4 Finish Mill Discharge Baghouse

**Source Description**

After milling, the cement is discharged. Grinding aids containing HAPs and VOC are used in these mills. Particulate emissions from this discharge are controlled by a baghouse with an assumed efficiency of 99%.

**Specific Conditions**

73. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 75. [Pursuant to §19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	1.6	6.7
VOC	27.8	122.0

74. The permittee shall not exceed the emission limit set forth in the following table. Compliance shall be demonstrated through compliance with Specific Conditions 75 and 76. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	1.6	6.7
Diethanolamine	1.0	4.1
Ethylene Glycol	0.4	1.4

75. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
76. The grinding aid used at this facility shall have a density less than or equal to 9.996 lb/gal and shall not contain more than 90% VOC or 4.0% HAP by weight. The HAPs contained in the grinding aid shall have a TLV greater than or equal to 2 mg/m<sup>3</sup>. The permittee shall not use more than 196,910 lb of grinding aid per month. Compliance shall be demonstrated through compliance with Specific Condition 77. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 70.6]

77. The permittee shall maintain records of the density, VOC content and HAP content of the grinding aid used. These records shall be in the form of an MSDS or the equivalent and shall be updated as necessary. The permittee shall maintain records of the amount of grinding aid used on a monthly basis. These records shall be updated on a monthly basis and made available to Department personnel upon request. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
78. Emissions from this source shall not exceed 10% opacity. This source is subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through daily visible emissions observations using Method 22, corrective action and subsequent visible emissions observations in accordance with 40 CFR 63.1350(e). The visible observation requirement will be superseded if the permittee chooses the use of a continuous opacity monitor or bag leak detection system in place of the visible observations in accordance with 40 CFR 63.1350(m). The permittee shall notify the Department, in writing, of the date a COM or BLDS is put into service at this facility. [§19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
79. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-M20**  
Dryer Scrubber

**Source Description**

Emissions from the dryer consist of products of combustion and additional particulate matter. Particulate matter is controlled using a wet scrubber with an efficiency of 95%. This scrubber operates at a gas flow of 18,000 ft<sup>3</sup>/min and a liquid flow rate of 10 gal/min.

**Specific Conditions**

80. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 83. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.2	0.9
SO <sub>2</sub>	0.1	0.2
VOC	0.5	1.9
CO	6.3	27.6
NO <sub>x</sub>	7.5	32.9

81. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 83. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.4	1.8

82. Emissions from this source shall not exceed 10% opacity. This source is subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated by observations of opacity from SN-M20 at least once each calendar week in which the dryer is in operation. These observations shall be performed using EPA Reference Method 22. Records of the operating periods of the dryer and the opacity observations shall be maintained in the facility record. These records shall be kept on site and made available to Department personnel upon request. [§19.304 of Regulation 19 and 40 CFR 63.1348]
83. The permittee shall not use more than 55.8 MMft<sup>3</sup> of natural gas per month at this source. Compliance shall be demonstrated through compliance with the requirements set forth in

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Specific Condition #84. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR 70.6]

84. The permittee shall maintain records of the amount of natural gas used at this source. These records shall be maintained on a monthly basis and updated by the 15th day of the month following the month to which the records pertain. The records shall be maintained on site and made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]
85. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-M42, M43, M44, M45**  
**Bin Dust Collectors**

**Source Description**

These baghouses are used to control emissions resulting from material transfer to storage bins. The efficiency of each baghouse is assumed to be 99%.

**Specific Conditions**

86. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 88. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>SN</b>	<b>Pollutant</b>	<b>lb/hr</b>	<b>Tpy</b>
M42	PM <sub>10</sub>	0.3	0.9
M43	PM <sub>10</sub>	0.3	0.9
M44	PM <sub>10</sub>	0.3	0.9
M45	PM <sub>10</sub>	0.3	0.9

87. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 88. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>SN</b>	<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
M42	PM	0.3	0.9
M43	PM	0.3	0.9
M44	PM	0.3	0.9
M45	PM	0.3	0.9

88. The permittee shall operate the control equipment associated with these sources in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
89. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and

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§8-4-311, §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]

90. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]



**SN-F4**  
Long Term Coal Pile

**Source Description**

Coal is stored in this pile until it is moved to the active coal pile and fed to the kilns.

**Specific Conditions**

91. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 93. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.5

92. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 93. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.2	0.9

93. The permittee shall maintain the area of this storage pile at or below 3.0 acres. Compliance shall be demonstrated through compliance with Specific Condition 94. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
94. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the long term coal pile that encompasses an area no greater than 3.0 acres. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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95. This source shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at this source in accordance with EPA Method 22. The permittee shall maintain records of the observations performed. These records shall be maintained on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§18.901 of Regulation 18]

**SN-F5**  
Active Coal Pile

**Source Description**

This is where the coal from the long term pile is transferred. Coal is fed to the kilns from this pile.

**Specific Conditions**

96. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 98. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.3

97. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 98. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.2	0.6

98. The permittee shall maintain the area of this storage pile at or below 1.0 acre. Compliance shall be demonstrated through compliance with Specific Condition 99. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
99. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the active coal pile that encompasses an area no greater than 1.0 acre. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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100. This source shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at this source in accordance with EPA Method 22. The permittee shall maintain records of the observations performed. These records shall be maintained on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§18.901 of Regulation 18]

## Uncontrolled Emission Points in the Fuel Area

### Source Description

The fuel area consists of many different pieces of equipment. The uncontrolled emission rates were found based on equipment maximums using a formula contained in AP-42 page 13.2.4-3 as found in Appendix B.

### Specific Conditions

101. The permittee shall not exceed the emission limits set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Source Description	Pollutant	lb/hr	tpy
F6	Discharge into Feed Hopper #5	PM <sub>10</sub>	0.3	0.6
F8	Coal Stacker Belt	PM <sub>10</sub>	0.1	0.1
F9	Discharge into Feed Hopper #4	PM <sub>10</sub>	0.3	0.6
F11	Transfer to #206 Belt	PM <sub>10</sub>	0.1	0.1
F12	Transfer to #206 Belt	PM <sub>10</sub>	0.1	0.1
F13	Transfer to #208 Belt	PM <sub>10</sub>	0.1	0.1
F14	Transfer to Stacker Belt	PM <sub>10</sub>	0.3	0.6
F15	Unloading into Long Term Coal Pile	PM <sub>10</sub>	0.2	0.5
F16	Transfer from Long Term Coal Pile to Active Pile	PM <sub>10</sub>	0.2	0.5
F17	Coal Feeders	PM <sub>10</sub>	0.1	0.2
F18	Railcar Unloading into Coal Hoppers 4 and 5	PM <sub>10</sub>	0.3	1.0

102. The permittee shall not exceed the emission rates set forth in the following. Compliance is based on the maximum capacity of the equipment and continuous operation. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Source Description	Pollutant	lb/hr	Tpy
F6	Discharge into Feed Hopper #5	PM	0.6	1.7
F8	Coal Stacker Belt	PM	0.1	0.1

SN	Source Description	Pollutant	lb/hr	Tpy
F9	Discharge into Feed Hopper #4	PM	0.6	1.7
F11	Transfer to #206 Belt	PM	0.1	0.1
F12	Transfer to #206 Belt	PM	0.1	0.1
F13	Transfer to #208 Belt	PM	0.1	0.1
F14	Transfer to Stacker Belt	PM	0.6	1.7
F15	Unloading into Long Term Coal Pile	PM	0.5	1.2
F16	Transfer from Long Term Coal Pile to Active Pile	PM	0.5	1.2
F17	Coal Feeders	PM	0.2	0.6
F18	Railcar Unloading into Coal Hoppers 4 and 5	PM	0.6	2.7

103. Visual emissions for these sources shall not exceed 20 percent opacity. The permittee shall demonstrate compliance with this specific condition by conducting a visible opacity observation of the source at least once each calendar week in which the source operates, and keep a record of these observations. If visible emissions appear to exceed 20 percent opacity, the permittee shall take corrective action, and perform and record the observation again. If visible emissions still appear to exceed 20 percent opacity, the permittee shall conduct a six minute opacity reading in accordance with the EPA reference method No. 9. The records of visible emission observations and results of any method No. 9 reading shall be kept on site for five years and made available to Department personnel upon request. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]
104. SN-F15 and SN-F16 shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at SN-F15 and SN-F16 and the recording of the findings of the visual observations in the facility record. These records shall be kept on site and made available to Department personnel upon request. [§18.901 of Regulation 18]

**SN-F19, F20**  
**Liquid Waste-derived Fuel Tanks**

**Source Description**

LWDF is received in rail tank cars and in tank trucks and stored in above ground storage tanks before being transferred to the kilns. There are ten above ground storage tanks. To control VOC emissions, tanks are vented to a thermal oxidizer with a back up carbon adsorption system.

**Specific Conditions**

105. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 117. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.2
SO <sub>2</sub>	0.1	0.2
VOC	16.9	3.0
CO	0.5	2.0
NO <sub>x</sub>	0.6	2.4

106. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 117. [§18.8 of Regulation 18 and A.C.A. §8-3-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.1	0.2
Xylene (mixed isomers)	1.26	0.2
Toluene	0.7	0.2
Methylene Chloride	0.1	0.1
Ethyl Benzene	0.33	0.1
Styrene	0.20	0.1
Tetrachloroethene	0.1	0.1

Pollutant	lb/hr	tpy
1,1,2 trichloroethane	0.1	0.1
Benzene	0.1	0.1

107. This subpart applies to each storage vessel with a capacity greater than 40 cubic meters ( $\text{m}^3$ ) that is used to store volatile organic liquids (VOLs) for which construction, reconstruction, or modification is commenced after July 23, 1984. [§19.304 of Regulation 19 and 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, §60.110b(a)]
108. Each storage vessel with a design capacity greater than or equal to  $151 \text{ m}^3$  containing a 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  $75 \text{ m}^3$ , but less than  $151 \text{ m}^3$  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 the following: [§19.304 of Regulation 19 and 40 CFR Part 60, §60.112b(a)]
  - a. These vessels shall be equipped with a closed vent system and control device meeting the following specifications: [§60.112b(a)(3)]
    - i. 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).
    - ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater.
109. Each source that is equipped with a closed vent system and control device (the thermal oxidizer at this facility) as required in §60.112b(a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements. [§19.304 of Regulation 19 and 40 CFR Part 60, §60.113b(c)]
  - a. Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.
    - i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design



specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuel types from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816°C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

- ii. A description of the parameter or parameters to be monitored to insure 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).
  - b. Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modification applies.
110. The permittee shall maintain records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least two years. The record required by (c)(1) will be kept for the life of the control equipment. [§19.304 of Regulation 19 and 40 CFR 60, §60.115b]
111. After installing control equipment in accordance with §60.112b(a)(3) or (b)(1) (closed vent system and control device other than a flare), the permittee shall keep the following records. [§19.304 of Regulation 19 and 40 CFR 60, §60.115b(c)]
- a. A copy of the operating plan.
  - b. A record of the measured values of the parameters monitored in accordance with §60.112b(c)(2).
112. The permittee shall keep copies of all records required by this section, except for records required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section shall be kept for the life of the source. [§19.304 of Regulation 19 and 40 CFR 60, §60.116b(a)]
113. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage tank with a design capacity less than 75 m<sup>3</sup> is subject to no provision of this subpart other than those required by this paragraph. [§19.304 of Regulation 19 and 40 CFR 60, §60.116b(b)]

114. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based on the highest expected calendar month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based on the maximum local monthly average ambient temperature as reported by the National Weather Service. [§19.304 of Regulation 19 and 40 CFR 60, §60.116b(e)]
115. The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements. [§19.304 of Regulation 19 and 40 CFR 60, §60.116b(f)]
  - a. Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.
  - b. For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
    - i. ASTM Method D2879-83 (incorporated by reference-see §60.17); or
    - ii. ASTM Method D323-82 (incorporated by reference-see §60.17); or
    - iii. As measured by an appropriate method as approved by the Administrator.
116. Visible emissions from this source shall not exceed 10% opacity. Compliance shall be demonstrated by using only natural gas as fuel in the thermal oxidizer. [§18.501 of Regulation 18 and A.C.A. §8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]
117. The permittee shall determine the destruction efficiency of the thermal oxidizing unit either using an appropriate test method or through the use of engineering calculations. If testing is used, the test shall be performed a minimum of once every five years. The initial test shall be performed no later than 180 days after the initial startup date. This test shall be performed with this unit operating at or above 90% of its design capacity. This unit shall achieve a VOC destruction rate of not less than 95%. If engineering calculations are used, the permittee shall maintain a complete design analysis of the unit which shall contain documentation necessary to demonstrate the performance of the unit. [§19.702 of Regulation 19 and 40 CFR Part 52, Subpart E]
118. The permittee shall maintain the temperature in the combustion chamber of the thermal oxidizer at or above 1500°F. To demonstrate compliance, the permittee shall install, calibrate, and maintain a continuous temperature recorder on the catalytic oxidizer used to control emissions from these sources. These records shall be maintained on site and made available to Department personnel upon request. [§19.703 of Regulation 19, 40

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CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

119. During operation of the dual carbon canister system as a replacement for thermal oxidizer at this source, the permittee shall use good engineering judgment and/or vendor recommendations to determine the frequency to observe the condition of the breakthrough indicators on the carbon canisters in the absorption train. Observation of the breakthrough indicators on the carbon canisters shall occur no less often than the conclusion of each operating shift in which working losses were directed through the carbon canister absorption train. If breakthrough is detected, the system shall be reconfigured and, as necessary, canisters shall be recharged. The permittee shall maintain a log of the observations of the breakthrough indicators and the recharging of the carbon canisters. These records shall be maintained on site and made available to Department personnel upon request. [§19.703 of Regulation 19, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-S1, S3, S13, S14**  
Truck Loadout Dust Collectors

**Source Description**

Trucks are loaded at these points. Emissions are controlled using baghouses assumed to be 99% efficient.

**Specific Conditions**

120. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 122. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Pollutant	lb/hr	tpy
S1, DC #31	PM <sub>10</sub>	0.2	0.8
S3, DC#49	PM <sub>10</sub>	0.7	3.0
S13, DC #28	PM <sub>10</sub>	0.5	2.0
S14	PM <sub>10</sub>	1.1	4.5

121. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 122. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Pollutant	lb/hr	tpy
S1, DC #31	PM	0.2	0.8
S3, DC#49	PM	0.7	3.0
S13, DC #28	PM	0.5	2.0
S14	PM	1.1	4.5

122. The permittee shall operate the control equipment associated with these sources in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
123. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and

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§8-4-311 , §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]

124. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition.  
[§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-S4, S5, S6, S7, S8, S9, S10, S11, S12**  
Silo Dust Collectors

**Source Description**

These baghouses control particulate emissions resulting from material transfer in and out of silos. Efficiencies are assumed to be 99%.

**Specific Conditions**

125. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 127. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>SN</b>	<b>Pollutant</b>	<b>lb/hr</b>	<b>Tpy</b>
S4, DC #21	PM <sub>10</sub>	0.5	2.1
S5, DC #22	PM <sub>10</sub>	0.2	0.7
S6, DC #23	PM <sub>10</sub>	0.6	2.5
S7, DC #24	PM <sub>10</sub>	0.7	3.0
S8, DC #29	PM <sub>10</sub>	0.2	0.8
S9, DC #30	PM <sub>10</sub>	0.2	0.7
S10, DC #25	PM <sub>10</sub>	0.4	1.6
S11, DC #26	PM <sub>10</sub>	0.7	3.0
S12, DC #27	PM <sub>10</sub>	0.6	2.5

126. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 127. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>SN</b>	<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
S4, DC #21	PM	0.5	2.1
S5, DC #22	PM	0.2	0.7
S6, DC #23	PM	0.6	2.5
S7, DC #24	PM	0.7	3.0
S8, DC #29	PM	0.2	0.8
S9, DC #30	PM	0.2	0.7

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SN	Pollutant	lb/hr	tpy
S10, DC #25	PM	0.4	1.6
S11, DC #26	PM	0.7	3.0
S12, DC #27	PM	0.6	2.5

127. The permittee shall operate the control equipment associated with these sources in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
128. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
129. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-C1**  
Clinker Transfer Tower Baghouse

**Source Description**

This baghouse controls particulate emissions resulting from material transfer at this source. Efficiency is assumed to be 99%.

**Specific Conditions**

130. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 132. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	1.8	7.6

131. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 132. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	1.8	7.6

132. The permittee shall operate the control equipment associated with this source in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
133. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
134. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition.



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[§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by  
A.C.A. §8-4-304 and §8-4-311]

## Uncontrolled Emission Points in the Clinker Area

### Source Description

The clinker area consists of many different pieces of equipment. The uncontrolled emission rates were found based on equipment maximums using a formula contained in AP-42 page 13.2.4-3 as found in Appendix B.

### Specific Conditions

135. The permittee shall not exceed the emission limits set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Source Name	Pollutant	lb/hr	tpy
C2	Outside Clinker Belt Discharge	PM <sub>10</sub>	0.5	1.9
C3	Outside Clinker Reclaim Hopper Loading	PM <sub>10</sub>	0.2	0.8
C4	Discharge from Clinker Reclaim Hopper	PM <sub>10</sub>	0.029	0.13
C5*	Clinker Railcar and Truck Hopper Loading	PM <sub>10</sub>	0.180	0.79
C6	Clinker Discharge to Railcar/Truck	PM <sub>10</sub>	0.1	0.3
C7*	Transfer from Reclaim Belt to #7 Belt	PM <sub>10</sub>	0.060	0.26
C8*	Transfer to #7 Belt	PM <sub>10</sub>	0.180	2.26
C9*	Transfer from #7 Belt to #8 Belt	PM <sub>10</sub>	0.042	0.18
C10*	Transfer from #8 Belt to #9 Belt	PM <sub>10</sub>	0.222	0.97
C11*	Discharge from #2 Clinker Bin	PM <sub>10</sub>	0.282	1.24
C15*	Discharge into #2 Clinker Bin	PM <sub>10</sub>	0.030	0.13
C16*	Transfer from #9 Belt	PM <sub>10</sub>	0.282	1.24
C17*	Discharge from #1 Clinker Bin	PM <sub>10</sub>	0.282	1.24
C19*	Transfer to Belt Conveyor	PM <sub>10</sub>	0.030	0.13
C20*	Discharge into #1 Clinker Bin	PM <sub>10</sub>	0.030	0.13

SN	Source Name	Pollutant	lb/hr	tpy
C21*	Transfer to 4A Belt	PM <sub>10</sub>	0.086	0.38
C28*	Discharge into Clinker Elevator	PM <sub>10</sub>	0.055	0.24
C36*	Discharge into Clinker Elevator	PM <sub>10</sub>	0.589	2.58

\*Subject to 40 CFR 63, Subpart LLL

136. The permittee shall not exceed the emission rates set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Source Name	Pollutant	lb/hr	tpy
C2	Outside Clinker Belt Discharge	PM	1.3	5.4
C3	Outside Clinker Reclaim Hopper Loading	PM	0.6	2.3
C4	Outside Clinker Storage Pile	PM	0.1	0.3
C5*	Discharge from Clinker Reclaim Hopper	PM	0.6	2.3
C6	Clinker Railcar and Truck Hopper Loading	PM	0.2	0.8
C7*	Clinker Discharge to Railcar/Truck	PM	0.2	0.8
C8*	Transfer from Reclaim Belt to #7 Belt	PM	0.6	2.3
C9*	Transfer to #7 Belt	PM	0.2	0.6
C10*	Transfer from #7 Belt to #8 Belt	PM	0.7	2.8
C11*	Transfer from #8 Belt to #9 Belt	PM	0.9	3.6
C15*	Discharge from #2 Clinker Bin	PM	0.1	0.4
C16*	Discharge into #2 Clinker Bin	PM	0.9	3.6
C17*	Transfer from #9 Belt	PM	0.9	3.6
C19*	Discharge from #1 Clinker Bin	PM	0.1	0.4
C20*	Transfer to Belt Conveyor	PM	0.1	0.4

SN	Source Name	Pollutant	lb/hr	tpy
C21*	Discharge into #1 Clinker Bin	PM	0.1	0.4
C28*	Transfer to 4A Belt	PM	0.2	0.7
C36*	Discharge into Clinker Elevator	PM	1.7	7.4
C37	Discharge into Clinker Elevator	PM	0.2	0.5

\*Subject to 40 CFR 63, Subpart LLL

137. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]
138. SN-C2, SN-C3, SN-C6 and SN-C37 shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at SN-C2, SN-C3, SN-C6 and SN-C37 and the recording of the findings of the visual observations in the facility record. These records shall be kept on site and made available to Department personnel upon request. [§18.901 of Regulation 18]
139. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-C4**  
**Outside Clinker Storage Pile**

**Source Description**

Clinker is stored in this pile prior to being transported by conveyors to mill feed bins.

**Specific Conditions**

140. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 142. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.029	0.13

141. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 142. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.058	0.25

142. The permittee shall maintain the area of this storage pile at or below 2.0 acres. Compliance shall be demonstrated through compliance with Specific Condition 143. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
143. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the outside clinker storage pile that encompasses an area no greater than 2.0 acres. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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144. This source shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at this source in accordance with EPA Method 22. The permittee shall maintain records of the observations performed. These records shall be maintained on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision 7. [§18.901 of Regulation 18]

**SN-C14, C18, C26, C27, C32, C34, C41, C42, C43, C44, C45, C46**  
 Clinker Handling Dust Collectors

**Source Description**

These baghouses control particulate emissions resulting from material transfer in the clinker portion of this facility. Efficiencies are assumed to be 99%.

**Specific Conditions**

145. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 147. [§19.501 of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>SN</b>	<b>Source Name</b>	<b>Pollutant</b>	<b>Lb/hr</b>	<b>tpy</b>
C14*	B Belt Dust Collector	PM <sub>10</sub>	0.1	0.4
C18*	Clinker Elevator Dust Collector	PM <sub>10</sub>	0.1	0.4
C26*	West Clinker Silo Dust Collector	PM <sub>10</sub>	0.8	3.2
C27*	4A2 Belt Dust Collector	PM <sub>10</sub>	0.6	2.7
C32*	East Clinker Silo Dust Collector	PM <sub>10</sub>	0.8	3.2
C34*	West Clinker Tank Dust Collector	PM <sub>10</sub>	0.2	0.8
C41*	Off-spec Bin and Ancillary Equipment Dust Collector	PM <sub>10</sub>	0.4	1.4
C42*	Clinker Dome Dust Collector	PM <sub>10</sub>	0.6	1.9
C43*	Reclaim Belt Dust Collector	PM <sub>10</sub>	0.2	0.5
C44*	Off-Spec Bin Dust Collector	PM <sub>10</sub>	0.17	0.75
C45*	Clinker Silo Baghouse	PM <sub>10</sub>	0.3	1.2
C46*	Clinker Silo Baghouse	PM <sub>10</sub>	0.3	1.2

\*Subject to 40 CFR 63, Subpart LLL

146. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 147. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Source Name	Pollutant	lb/hr	tpy
C14*	B Belt Dust Collector	PM	0.1	0.4
C18*	Clinker Elevator Dust Collector	PM	0.1	0.4
C26*	West Clinker Silo Dust Collector	PM	0.8	3.2
C27*	4A2 Belt Dust Collector	PM	0.6	2.7
C32*	East Clinker Silo Dust Collector	PM	0.8	3.2
C34*	West Clinker Tank Dust Collector	PM	0.2	0.8
C41*	Off-spec Bin and Ancillary Equipment Dust Collector	PM <sub>10</sub>	0.4	1.4
C42*	Clinker Dome Dust Collector	PM <sub>10</sub>	0.6	1.9
C43*	Reclaim Belt Dust Collector	PM <sub>10</sub>	0.2	0.5
C44*	Off-Spec Bin Dust Collector	PM	0.17	0.75
C45*	Clinker Silo Baghouse	PM	0.3	1.2
C46*	Clinker Silo Baghouse	PM	0.3	1.2

\*Subject to 40 CFR 63, Subpart LLL

147. The permittee shall operate the control equipment associated with these sources in a manner consistent with good air pollution control practices in order to comply with the applicable emission limits. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
148. The permittee shall not operate sources SN-41, SN-42, and SN-43 more than 7,250 hours per year based on a rolling twelve month total. Compliance shall be demonstrated by maintaining records of the hours of operation of these sources. These records shall be maintained on a weekly basis and updated weekly. These records shall be maintained on site and made available to Department personnel upon request. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 70.6]
149. Emissions from these sources shall not exceed 10% opacity. These sources are subject to all applicable requirements listed in Plantwide Condition #12. Compliance with the



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opacity standard shall be demonstrated through compliance with Plantwide Condition #15. [§18.501 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , §19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*]

150. The permittee shall conduct initial compliance tests for all affected sources for which an initial compliance test has not been previously performed. Any of the affected sources for which the facility has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§63.1349(a) of 40 CFR Part 63, Subpart LLL and A.C.A.. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

## Uncontrolled Emission Points in the Raw Material Storage Area

### Source Description

The Raw Material Storage area consists of many different pieces of equipment. The uncontrolled emission rates were found based on equipment maximums using a formula contained in AP-42 page 13.2.4-3 as found in Appendix B.

### Specific Conditions

151. The permittee shall not exceed the emission limits set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Source Name	Pollutant	lb/hr	tpy
R1	Truck Unloading for Sand/Iron Ore	PM <sub>10</sub>	0.7	2.8
R3	Discharge from Chalk Feeder	PM <sub>10</sub>	0.1	0.1
R4	Discharge from Gypsum Feeder	PM <sub>10</sub>	0.1	0.4
R6	Discharge from Sand/Iron-ore Feeder	PM <sub>10</sub>	0.1	0.1
R8	Sand/Iron Ore Storage Transfer	PM <sub>10</sub>	0.2	0.5
R9	Discharge from Emergency Feeder	PM <sub>10</sub>	0.1	0.4
R10	Discharge of Gypsum Belt	PM <sub>10</sub>	0.3	1.2
R11	Discharge into Secondary Crusher	PM <sub>10</sub>	0.1	0.1
R13	Secondary Crusher Discharge	PM <sub>10</sub>	0.1	0.1
R14	Transfer to #2 Belt	PM <sub>10</sub>	0.1	0.1
R24	Transfer from Portable Crusher to Main Conveyor	PM <sub>10</sub>	0.2	0.5

152. The permittee shall not exceed the emission rates set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Source Name	Pollutant	lb/hr	tpy
R1	Truck Unloading for Sand/Iron Ore	PM	1.9	8.0
R3	Discharge from Chalk Feeder	PM	0.1	0.2
R4	Discharge from Gypsum Feeder	PM	0.3	1.0
R6	Discharge from Sand/Iron-ore Feeder	PM	0.1	0.1
R8	Sand/Iron Ore Storage Transfer	PM	0.4	1.5
R9	Discharge from Emergency Feeder	PM	0.3	1.0
R10	Discharge of Gypsum Belt	PM	0.8	3.2
R11	Discharge into Secondary Crusher	PM	0.1	0.2
R13	Secondary Crusher Discharge	PM	0.1	0.2
R14	Transfer to #2 Belt	PM	0.1	0.2
R24	Transfer from Portable Crusher to Main Conveyor	PM	0.3	1.3

153. The opacity from sources R3, R4, R11, R13, and R14 shall not exceed 40%. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #10. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]
154. The opacity from sources R6, R9, R10, and R24 shall not exceed 20%. Compliance with the opacity standard shall be demonstrated through compliance with Plantwide Condition #10. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]
155. SN-R1 and SN-R8 shall be operated so that unnecessary air contaminants do not become airborne. Compliance shall be demonstrated through a monthly visual observation of operations at SN-R1 and SN-R8 and the recording of the findings of the visual observations in the facility record. These records shall be kept on site and made available to Department personnel upon request. [§18.901 of Regulation 18]

**SN-R2**  
Chalk Storage Pile

**Source Description**

Chalk used to create the clinker at this facility is stored in a pile.

**Specific Conditions**

156. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 158. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.2

157. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 158. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.1	0.3

158. The permittee shall maintain the area of this storage pile at or below 1.50 acres. Compliance shall be demonstrated through compliance with Specific Condition 159. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
159. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the sand storage pile that encompasses an area no greater than 1.50 acres. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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160. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [18.901(A) of Regulation 18 and A.C.A. § 8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-R5**  
Gypsum Storage Pile

**Source Description**

Gypsum used to manufacture Portland cement at this facility is stored in a pile.

**Specific Conditions**

161. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 163. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.1

162. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 163. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.1	0.1

163. The permittee shall maintain the area of this storage pile at or below 0.22 acre. Compliance shall be demonstrated through compliance with Specific Condition 164. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
164. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the gypsum storage pile that encompasses an area no greater than 0.22 acre. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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165. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [18.901(A) of Regulation 18 and A.C.A. § 8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-R12**  
Secondary Crusher

**Source Description**

This crusher is used to crush the raw materials used at this facility. Chalk, sand, and iron ore are crushed and then transported to the mill building by a conveyor belt.

**Specific Conditions**

166. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 169. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.2	0.8

167. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 169. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.2	0.8

168. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [§19.503 of Regulation 19, §18.901 of Regulation 18 and, A.C.A. § 8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]
169. The permittee shall not crush more than 744,000 tons of material per month at this source. Compliance shall be demonstrated through compliance with Specific Condition #170. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR 70.6]
170. The permittee shall maintain records of the amount of material crushed at this source. These records shall be maintained on a weekly basis. These records shall be kept on site and made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]
171. The permittee shall conduct initial compliance tests for this source provided an initial compliance test has not been previously performed. Any sources for which the facility



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has already tested need not be tested again, provided that the facility has documentation and the results of these tests. A copy of this documentation must accompany the results of the initial tests required by this Specific Condition. [§19.503 of Regulation 19, §18.901 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-R17**  
**Long Term Sand Pile**

**Source Description**

Sand used to create the clinker at this facility is stored in a pile.

**Specific Conditions**

172. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 174. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.2

173. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 174. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.1	0.4

174. The permittee shall maintain the area of this storage pile at or below 1.0 acre. Compliance shall be demonstrated through compliance with Specific Condition 175. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
175. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the long term sand storage pile that encompasses an area no greater than 1.0 acre. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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176. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [18.901(A) of Regulation 18 and A.C.A. § 8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-R18**  
**Iron Ore Storage Pile**

**Source Description**

Iron ore used to create the clinker at this facility is stored in a pile.

**Specific Conditions**

177. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 179. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.3

178. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 179. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.2	0.6

179. The permittee shall maintain the area of this storage pile at or below 0.5 acre. Compliance shall be demonstrated through compliance with Specific Condition 180. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
180. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the iron ore storage pile that encompasses an area no greater than 0.5 acre. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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181. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [18.901(A) of Regulation 18 and A.C.A. § 8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-R19**  
Sand Storage Pile

**Source Description**

Sand used to create the clinker at this facility is stored in this pile after being moved from the long term storage pile until it is fed to the clinker.

**Specific Conditions**

182. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 184. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.1

183. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 184. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.1	0.1

184. The permittee shall maintain the area of this storage pile at or below 0.25 acre. Compliance shall be demonstrated through compliance with Specific Condition 185. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
185. Within thirty days of the effective date of this operating air permit, the permittee shall survey a boundary perimeter to the sand storage pile that encompasses an area no greater than 0.25 acre. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. A copy of these records shall be submitted in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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186. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [18.901(A) of Regulation 18 and A.C.A. § 8-4-230 as referenced by A.C.A. §8-4-304 and §8-4-311]

**SN-R20**  
Fugitive Emissions from Plant Haul Roads

**Source Description**

Equipment and material are moved around the plant via a series of unpaved haul roads. Emissions from these roads were calculated using an equation contained in AP-42 §13.2.2 for unpaved roads.

**Specific Conditions**

187. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 189. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	3.6	13.4

188. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 189. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	13.1	47.2

189. The permittee shall follow the plant haul road fugitive dust control plan contained in Appendix H of the permit. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR Part 70.6]



**SN-R22 & R23**  
Portable Crusher Diesel Engine and Portable Crusher

**Source Description**

This crusher is powered by a diesel engine and is used to crush spent kiln brick so that it may be added to the raw materials stored in the mill building, then fed to Kiln #3.

**Specific Conditions**

190. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 193. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Pollutant	lb/hr	Tpy
R-22	PM <sub>10</sub>	0.2	0.8
	SO <sub>2</sub>	0.2	0.8
	VOC	0.2	0.9
	CO	0.6	2.3
	NO <sub>x</sub>	2.5	10.6
R-23	PM <sub>10</sub>	0.5	0.5

191. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 193. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Pollutant	lb/hr	tpy
R-22	PM	0.2	0.8
R-23	PM	0.5	0.5

192. Visible emissions from these sources shall not exceed 20% opacity. The permittee shall demonstrate compliance with this Specific Condition by conducting a visible opacity observation of these sources at least once each calendar week in which these sources operate and keep a record of these observations. If visible emissions appear to exceed 20% opacity, the permittee shall take corrective action, and perform and record the observation again. If visible emissions still appear to exceed 20% opacity, the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method #9. The records of visible emission observations and results of any Method #9 readings shall

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be kept on site for five years and made available to Department personnel upon request. [§19.503 of Regulation 19, and 40 CFR Part 52, Subpart E]

193. The permittee shall not crush more than 59,520 tons of material per month at SN-R23. Compliance shall be demonstrated through compliance with Specific Condition #194. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR 70.6]
194. The permittee shall maintain records of the amount of material crushed at SN-R23. These records shall be maintained on a weekly basis. These records shall be kept on site and made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]
195. The permittee shall use only #2 fuel oil as fuel at SN-R22. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR 70.6]

**SN-R25**  
Emergency Gypsum Storage Pile

Source Description

This pile is in place to allow for storage of gypsum so that production may continue if gypsum deliveries are interrupted.

Specific Conditions

196. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 198. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.1	0.1

197. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 198. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.1	0.1

198. The permittee shall maintain the area of this storage pile at or below 0.28 acre. Compliance shall be demonstrated through compliance with Specific Condition 199. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR Part 70.6 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
199. Within thirty days of the construction of this source, the permittee shall survey a boundary perimeter to the emergency gypsum storage pile that encompasses an area no greater than 0.28 acre. The permittee shall demarcate the perimeter on the ground by stakes, monuments or other permanent markers. At a minimum of once every three months, the permittee shall certify in the facility record that the footprint of the pile is within the confines of the established perimeter. If the footprint of the pile exceeds the established perimeter at any location, the permittee shall survey the pile to ascertain the true area of the pile and make appropriate notations in the facility record. These records shall be kept on site and made available to Department personnel upon request. [§19.705 of Regulation 19, §18.1004 of Regulation 18, 40 CFR 52, Subpart E and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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**SN-Q1**  
**Quarry Haul Road**

**Source Description**

Quarried material is hauled to the crushing area via this road.

**Specific Conditions**

200. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 202. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	5.2	22.5

201. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 202. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	23.5	102.8

202. The permittee shall water this haul road in accordance with a haul road watering plan. This plan shall be designed to minimize emissions from this source. A copy of this plan shall be kept on site and made available to Department personnel upon request. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR Part 70.6]

**SN-Q2**  
Primary Crusher

**Source Description**

Quarried chalk is crushed at this source before being hauled to the raw materials storage area. This source was installed prior to the applicability date of NSPS Subpart OOO.

**Specific Conditions**

203. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 205. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.5	1.9

204. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 205. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	0.5	1.9

205. The permittee shall not crush more than 1,116,000 tons per month at this source. Compliance shall be demonstrated through compliance with Specific Condition 206. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR Part 70.6]
206. The permittee shall maintain records of the amount of material crushed at this source. These records shall be maintained on a monthly basis and updated by the 15<sup>th</sup> day of the month following the month to which the records pertain. These records shall be kept on site and made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR Part 52, Subpart E]
207. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [§19.501 of Regulation 19 and 40 CFR part 52, Subpart E]

## Uncontrolled Emission Points in the Quarry

### Source Description

The quarry contains many different pieces of equipment. Emissions sources primarily consist of transfer points. The uncontrolled emission rates were found based on equipment maximums using emission factors contained in AP-42 table 11.19.2-2. These sources were installed prior to the applicability date of NSPS Subpart OOO.

### Specific Conditions

208. The permittee shall not exceed the emission limits set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Source Name	Pollutant	lb/hr	tpy
Q3	Transfer from Belt 2N to Belt 1N	PM <sub>10</sub>	0.1	0.4
Q4	Transfer from Belt 1N to Tripper Belt	PM <sub>10</sub>	0.1	0.4
Q5	Discharge from Tripper Belt to Chalk Storage	PM <sub>10</sub>	0.1	0.4
Q6	Scraper Dumping to Auxiliary Crusher	PM <sub>10</sub>	0.1	0.2
Q7	Hopper 3 Discharge to 1.12 Belt (Auxiliary System)	PM <sub>10</sub>	0.1	0.2
Q9	Discharge from Belt 1 to Tripper Belt (Auxiliary System)	PM <sub>10</sub>	0.1	0.2

209. The permittee shall not exceed the emission rates set forth in the following table. Compliance is based on the maximum capacity of the equipment and continuous operation. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Source Name	Pollutant	lb/hr	tpy
Q3	Transfer from Belt 2N to Belt 1N	PM	0.1	0.4
Q4	Transfer from Belt 1N to Tripper Belt	PM	0.1	0.4
Q5	Discharge from Tripper Belt to Chalk Storage	PM	0.1	0.4
Q6	Scraper Dumping to Auxiliary Crusher	PM	0.1	0.2

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<b>SN</b>	<b>Source Name</b>	<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
Q7	Hopper 3 Discharge to 1.12 Belt (Auxiliary System)	PM	0.1	0.2
Q9	Discharge from Belt 1 to Tripper Belt (Auxiliary System)	PM	0.1	0.2

210. Visible emissions from this source shall not exceed 20% opacity. Compliance shall be demonstrated through compliance with Plantwide Condition #10. [§19.501 of Regulation 19 and 40 CFR part 52, Subpart E]

**SN-Q8**  
Auxiliary Crusher

**Source Description**

This crusher serves as a backup to SN-Q2.

**Specific Conditions**

211. The permittee shall not exceed the emission limits set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 213. [§19.501 et seq. of Regulation 19 and 40 CFR Part 52, Subpart E]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM <sub>10</sub>	0.5	2.2

212. The permittee shall not exceed the emission rates set forth in the following table. Compliance shall be demonstrated through compliance with Specific Condition 213. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

<b>Pollutant</b>	<b>lb/hr</b>	<b>tpy</b>
PM	1.1	4.7

213. The permittee shall not crush more than 632,400 tons per month at this source. Compliance shall be demonstrated through compliance with Specific Condition 214. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR Part 70.6]
214. The permittee shall maintain records of the amount of material crushed at this source. These records shall be maintained on a monthly basis and updated by the 15<sup>th</sup> day of the month following the month to which the records pertain. These records shall be kept on site and made available to Department personnel upon request. This source was installed prior to the applicability date of NSPS Subpart OOO. [§19.705 of Regulation 19, §18.1004 of Regulation 18, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311 , and 40 CFR Part 52, Subpart E]
215. Visible emissions from this source shall not exceed 20% opacity. The permittee shall demonstrate compliance with this Specific Condition by conducting a visible opacity observation of the source at least once each calendar week in which the source operates and keep a record of these observations. If visible emissions appear to exceed 20% opacity, the permittee shall take corrective action, and perform and record the observation again. If visible emissions still appear to exceed 20% opacity, the permittee shall conduct



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a 6-minute opacity reading in accordance with EPA Reference Method #9. The records of visible emission observations and results of any Method #9 readings shall be kept on site for five years and made available to Department personnel upon request. [§19.501 of Regulation 19 and 40 CFR Part 52, Subpart E]

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## **SECTION V: COMPLIANCE PLAN AND SCHEDULE**

Ash Grove Cement Company will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

## SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Regulation 19, §19.410(B) and 40 CFR Part 52, Subpart E]
3. The permittee must test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. The permittee must provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - a. Sampling ports adequate for applicable test methods;
  - b. Safe sampling platforms;
  - c. Safe access to sampling platforms; and
  - d. Utilities for sampling and testing equipment.
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
7. A treatment process or waste stream is in compliance with the requirements of this subpart and exempt from the requirements of paragraph (c) of this section provided that the owner or operator documents that the treatment process or waste stream is in compliance with other regulatory requirements as follows:

- i. The treatment process is a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 264, Subpart O;
- ii. The treatment process is an industrial furnace or boiler burning hazardous waste for energy recovery for which the owner or operator has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 266, Subpart D.

[A.C.A. §8-4-203 as referenced by A.C.A. §8-4-203 and §3-4-311 and 40 CFR Part 61, Subpart FF, Benzene Waste Operations, §61.348(d)]

8. The facility shall develop and implement a written startup, shutdown, and malfunction plan for those sources indicated as being subject to 40 CFR Part 63, Subpart FF, *National Emission Standards for Hazardous Air Pollutants from Benzene Waste Operations*. The plan shall include those items listed in 40 CFR 63.6(e)(3) et seq. The plan shall be maintained on site and be available to Department personnel upon request. [§19.304 of Regulation 19 and 40 CFR 63.6(e)(3)(i)]
9. The permittee is exempted from certain requirements of this subpart, specifically §§ 63.685 (tanks), 63.688 (containers) and 63.693 (closed vent/containment devices) because the unit is subject to equivalent requirements imposed pursuant to 40 CFR 61, Subpart FF, Benzene Waste Operations. [40 CFR Part 63, Subpart DD, *National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations*]
10. Visible emission observations shall be used as a method of compliance verification for the opacity limits assigned for the sources whose Specific Conditions reference this Plantwide Condition. The weekly observations shall be conducted by someone familiar with the facility's visible emissions.
  - a. If during the observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
    - i. Take immediate action to identify the cause of the visible emissions,
    - ii. Implement corrective action, and
    - iii. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9 for point sources and in accordance with EPA Method 22 for non-point sources. This reading shall be conducted by a person trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
    - iv. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.

- b. The permittee shall maintain records related to all visible emission observations and Method 9 readings. These records shall be updated on an as-performed basis. These records shall be kept on site and made available to Department personnel upon request. These records shall contain:
  - i. The time and date of each observation/reading any observance of visible emissions appearing to be above permitted limits or any Method 9 reading which indicates exceedance,
  - ii. The cause of any observed exceedance of opacity limits, corrective actions taken, and results of the reassessment, and
  - iii. The name of the person conducting the observation/reading.

[§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

- 11. This facility is considered an affected source and is subject, but not limited to, the following requirements. The referenced requirements will also include the applicable Subpart EEE NESHAP amendments promulgated by the EPA and as incorporated in the Code of Federal Regulations. Alternatives to the requirements contained in this permit must be approved by the Administrator. Once the Department has received written notification of approval of alternative requirements, the alternate requirements may be implemented. These requirements shall not be in effect for existing affected sources until September 30, 2003, unless an extension of this deadline is granted by the Administrator. [§19.304 of Regulation 19 and 40 CFR 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors*]

#### *Emission Limits*

- a. The permittee shall not discharge or cause combustion gases to be emitted into the atmosphere that contain Pursuant to §63.1204(a),:
  - i. For dioxins and furans:
    - 1. Emissions in excess of 0.20 ng TEQ/dscm corrected to 7 percent oxygen; or
    - 2. 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;
  - ii. Mercury in excess of 120 µg/dscm corrected to 7 percent oxygen;
  - iii. Lead and cadmium in excess of 330 µg/dscm, combined emissions, corrected to 7 percent oxygen;
  - iv. Arsenic, beryllium, and chromium in excess of 56 µg/dscm, combined emissions, corrected to 7 percent oxygen;
  - v. Carbon monoxide and hydrocarbons.

1. For kilns equipped with a by-pass duct or midkiln gas sampling system, either:
  - a. Carbon monoxide in the by-pass duct or midkiln 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, and hydrocarbons in the by-pass duct 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, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7); or
  - b. 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;
2. For kilns not equipped with a by-pass duct or midkiln gas sampling system, either;
  - a. Hydrocarbons in the main stack in excess of 20 ppm 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; or
  - b. Carbon monoxide in the main stack in excess of 100 ppm by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen, and hydrocarbons in the main vent stack in excess of 20 ppm 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, at any time during the DRE test runs or their equivalent as provided by §63.1206(b)(7).
- vi. Hydrochloric acid and chlorine gas in excess of 130 ppm by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis, corrected to 7 percent oxygen; and
- vii. Particulate matter in excess of 0.15 kg/Mg dry feed and opacity greater than 20 percent.
  1. The permittee must use suitable methods to determine the kiln raw material feedrate.

2. Except as provided in paragraph (a)(7)(iii) of this section, the permittee must compute the particulate matter emission rate,  $E$ , from the following equation:

$$E = (C_s \times Q_{sd})/P$$

Where:

$E$  = emission rate of particulate matter, kg/Mg of raw material feed;

$C_s$  = concentration of particulate matter, kg/dscm

$Q_{sd}$  = volumetric flowrate of effluent gas, dscm/hr

$P$  = total kiln raw material feed (dry basis), Mg/hr.

3. If the permittee operates a preheater or preheater/precalciner kiln with dual stacks, they must test simultaneously and compute the combined particulate matter emission rate,  $E_c$ , from the following equation:

$$E_c = (C_{sk} \times Q_{sdk} + C_{sb} \times Q_{sdb})/P$$

Where:

$E_c$  = the combined emission rate of particulate matter from the kiln and bypass stack, kg/Mg of raw material feed;

$C_{sk}$  = concentration of particulate matter in the kiln effluent, kg/dscm;

$Q_{sdk}$  = volumetric flowrate of kiln effluent gas, dscm/hr;

$C_{sb}$  = concentration of particulate matter in the bypass stack effluent, kg/dscm;

$Q_{sdb}$  = volumetric flowrate of bypass stack effluent gas, dscm/hr;

$P$  = total kiln raw material feed (dry basis), Mg/hr

*Destruction and removal efficiency (DRE) standard*

- b. Except as provided in paragraph (c)(2) of this section, the permittee must achieve a destruction and removal efficiency of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (c)(3) of this section. The permittee must calculate DRE for each POHC from the following equation:

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

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.

[§63.1204(c)(1)]

- c. If the permittee burns dioxin-listed hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27 (see §261.31 of this chapter), the permittee must achieve a DRE of 99.9999% for each POHC that is designated under paragraph (c)(3) of this section. The permittee must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetro-, penta, and hexachlorodibenzo-p-dioxins and dibenzofurans. The equation in paragraph (c)(1) of this section shall be used to calculate DRE for each POHC. In addition, the permittee must notify the Administrator of the intent to burn hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27.  
[§63.1204(c)(2)]
- d. The permittee must treat the POHCs in the waste feed that are specified under paragraph (c)(3)(ii) of this section to the extent required by paragraphs (c)(1) and (c)(2) of this section. [§63.1204(c)(3)(i)]
- e. The permittee must specify one or more POHCs from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60, for each waste to be burned. The permittee must base this specification on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses or other data and information. [§63.1204(c)(3)(ii)]

*Compliance Date:*

- f. The permittee must comply with the standards set forth in this subpart no later than September 30, 2003 unless the Administrator grants an extension of time under §63.6(i) or §63.1213. [§63.1206(a)(1)]
- g. The emission standards and operating requirements set forth in this subpart apply at all times except:
  - i. During startup, shutdown, and malfunction, provided that hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period time not less than the hazardous waste residence time) during those periods of operation, as provided by paragraph (c)(2)(ii) of this section; and
  - ii. When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period time not less than the hazardous waste residence time) , and the permittee has
    - 1. submitted a written, one-time notice to the Administrator documenting compliance with all applicable requirements and standards promulgated under authority of the Clean Air Act, including sections 112 and 129; and



2. Documented in the operating record that you are complying with such applicable requirements in lieu of the emission standards and operating requirements of this subpart.

[§63.1206(b)(1)]

*Applicability of particulate matter and opacity standards during particulate matter correlation tests*

- h. Any particulate matter and opacity standards or any permit or other emissions operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to insure compliance with any particulate matter or opacity standard of parts 60, 61, 63, 264, 265, and 266 of this chapter (i.e., any title 40 particulate or opacity standards) applicable to hazardous waste combustor do not apply while the permittee conducts particulate matter continuous emissions monitoring system (CEMS) correlation tests. [§63.1206(b)(8)(i) and (ii)]
- i. For provisions of this section to apply, the permittee must develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§63.1207(e) and (f):
  - i. Number of test conditions and number of runs for each test condition;
  - ii. Target particulate matter emission level for each test condition;
  - iii. How you plan to modify operations to attain the desired particulate matter emission levels; and
  - iv. Anticipated normal emission levels; and
  - v. Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted.

[§63.1206(b)(8)(iii)(A) and (B)]

- j. If the Administrator fails to approve or disapprove the correlation test plan with 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)]
- k. The particulate matter and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator. [§63.1206(b)(8)(v)]
- l. The permittee must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed. [§63.1206(b)(8)(vii)]

*Alternative Standards for Existing Hazardous Waste Burning Cement Kilns Using MACT*

- m. The permittee may petition the Administrator to recommend alternative semivolatile, low volatile metal, mercury, and/or hydrochloric acid/chlorine gas emission standards if:
  - i. The permittee cannot achieve one or more of the standards while using MACT because of raw material contributions to emissions of the regulated metals or hydrochloric acid/chlorine gas; or
  - ii. The permittee determines that mercury is not present at detectable levels in the raw material.

[§63.1206(b)(10)(i)]

- n. The alternative standard recommended under paragraph (b)(10)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine and/or an emission limitation.  
[§63.1206(b)(10)(ii)]
- o. 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 paragraphs (b)(10)(viii) and (ix) of this section. [§63.1206(b)(10)(iii)]
- p. The alternative standard petitions submitted under this section must include data or information required by this section. [§63.1206(b)(10)(iv)(A) through §63.1206(b)(10)(ix)(D)]

*Calculation of hazardous waste residence time*

- q. The permittee must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. The permittee must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(d) and the Notification of Compliance under §§63.1207(j) and 63.1210(d).  
[§63.1206(b)(11)]

*Documenting compliance with the standard based on performance testing*

- r. The permittee 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)]

- s. The permittee must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that the permittee must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. [§63.1206(b)(12)(ii)]

*Cement kilns which feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired.*

- t. Cement kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired must comply with the carbon monoxide and hydrocarbon standards of §63.1204 as follows:
  - i. Existing sources must comply with the 20 parts per million by volume hydrocarbon limit, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7% oxygen, and reported as propane.

[§63.1206(b)(13)(i)]

*General Operating Requirements*

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

[§63.1206(c)(1)(i)]

- v. Except as provided in by paragraph (c)(2)(ii) of this section, the permittee is subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3).
  - i. The permittee is subject to the startup, shutdown, and malfunction plan requirements of §63.6(e)(3) even if the permittee follows the startup and shutdown procedures and the corrective measures upon malfunction that are prescribed in the startup, shutdown, and malfunction plan, the emission combustion chamber. [§63.1206(c)(2)(ii)]
  - ii. The permittee must identify in the plan the projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. [§63.1206(c)(2)(iii)]
  - iii. The permittee must record the plan in the operating record. [§63.1206(c)(2)(iv)]

[§63.1206(c)(2)(i)]

- w. Upon the compliance date, the permittee must operate the combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by paragraph (c)(3)(viii) of this section, when the following conditions apply:
  - i. When operating parameter limits specified under §63.1209; an emission standard monitored by CEMS; and the allowable combustion chamber pressure; [§63.1206(c)(3)(i)(A)]
  - ii. When the span value of any CMS detector, except a CEMS, is met or exceeded; [§63.1206(c)(3)(i)(B)]
  - iii. 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)]
  - iv. When any component of the automatic waste feed cutoff system fails. [§63.1206(c)(3)(i)(D)]

[§63.1206(c)(3)(i)]

- x. During an automatic waste feed cutoff (AWFCO) the permittee must continue to duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber. [§63.1206(c)(3)(ii)]
- y. The permittee 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 the permittee shall not restart the hazardous waste feed until the operating parameters and emission levels are within specified limits. [§63.1206(c)(3)(iii)]

- z. 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 paragraph (c)(3)(i) of this section, the permittee has failed to comply with the AWFCO requirements of paragraph (c)(3) of this section. [§63.1206(c)(3)(iv)]
- aa. If, after any AWFCO, there is an exceedance of any emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber, the permittee shall 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)]
- bb. For each set of 10 exceedances of an emissions standard or operating requirement while hazardous waste remains in the combustion chamber during a 60-day block period, the permittee must submit to the Administrator a written report within 5 calendar days of the 10<sup>th</sup> exceedance documenting the exceedances and the results of the investigation and corrective measures taken. [§63.1206(c)(3)(vi)(A)]
- cc. 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)]
- dd. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the permittee must conduct operability testing at least monthly. The permittee must document and record in the operating record AWFCO operability test procedures and results. [§63.1206(c)(3)(vii)]
- ee. The permittee shall use a COMS to demonstrate and monitor compliance with the opacity standard under §§63.1204(a)(7) and (b)(7) at each point where emissions are vented from these affected sources including the bypass stack of a preheater/precalciner kiln with dual stacks. [§63.1209(a)(1)(ii)]
- ff. The permittee is subject to the combustion system leak control system operating and reporting requirements set forth in this section. [§63.1206(c)(5)(i through ii)]
- gg. The permittee is subject to the operator training and certification standards set forth in this section. [§63.1206(c)(6)(i through v)]

- hh. The permittee must prepare and at all times operate according to an operation and maintenance plan which complies with the requirements set forth in these sections. [§63.1206(c)(7)(i)(A-D)]

*Performance Testing Requirements*

- ii. The permittee must conduct performance testing in accordance with the applicable requirements contained in this section. [§63.1207(a-n)]
- jj. The permittee must commence the initial comprehensive performance test not later than six months after the compliance date. [§63.1207(c)(1)]
- kk. The permittee may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing:
  - i. Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results adequately demonstrate compliance with the applicable standard;
  - ii. Was in conformance with the requirements of paragraph (g)(1) of this section; and,
  - iii. Was sufficient to establish the applicable operating parameter limits under §63.1209.

[§63.1207(C)(2)(i)]

- ll. The permittee must conduct testing periodically as described in paragraphs (d)(1) through (3) of this section. 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. The permittee 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.
  - i. The permittee must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test.
  - ii. The permittee must commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. To insure 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.
  - iii. The permittee must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on documentation in writing of factors

beyond the permittee's control that prevent testing from being completed within 60 days.

[§63.1207(d)(1) through (3)]

- mm. The permittee 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 plan at least one year before the performance test and performance evaluation are scheduled to begin. [§63.1207(e)(i)]
- nn. The permittee must submit to the Administrator a notification of intent to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin. [§63.1207(e)(i)(B)]
- oo. The permittee must submit to the Administrator a notification of intent to conduct a confirmatory performance test and CMS performance evaluation and a test plan and CMS performance evaluation plan at least 60 calendar days before the performance test is scheduled to begin. [§63.1207(e)(ii)]

#### *Test Methods*

- pp. The permittee shall use the test methods contained in this section when determining compliance with the emissions standards of this subpart. [§63.1208(a-b)]

#### *Monitoring Requirements*

- qq. The permittee is subject to the applicable monitoring requirements contained in these sections. [§63.1209 (a-q)]
- rr. The permittee must use a CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standards under this subpart. The permittee must also use an oxygen CEMS to continuously correct the carbon monoxide and hydrocarbon levels to 7 percent oxygen. [§63.1209(a)(1)(i)]
- ss. The permittee 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 their 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)]

- tt. The permittee must install, calibrate, maintain, and continuously operate the COMS and CEMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 1 (opacity), 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, Part 60 of this chapter. [§63.1209(a)(2)]
- uu. Prior to feeding the material, the permittee must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits provided in this section. [§63.1209(c)(1)]
- vv. The permittee must develop and implement a feedstream analysis plan and record it in the operating record. [§63.1209(c)(2)]
- ww. The permittee must submit the feedstream analysis plan to the Administrator for review and approval, if requested. [§63.1209(c)(3)]
- xx. To comply with the applicable feedrate limits of this section, the permittee must monitor and record the feedrates as follows:
  - i. Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;
  - ii. Determine and record the mass or volume flowrate of each stream by a CMS. If the permittee determines flowrate of a feedstream by volume, the permittee must determine and record the density of the feedstream by sampling and analysis (unless the permittee reports the constituent concentration in units of weight per volume); and
  - iii. Calculate and record the mass feedrate of the parameter per unit time.

[§63.1209(c)(4)]

- yy. The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that the permittee must conduct performance evaluations 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)]
- zz. To remain in compliance with the destruction and removal efficiency (DRE) standards, the permittee 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. [§63.1209(j)]
- aaa. The permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the



- combustion zone. The permittee must document the temperature measurement location in the test plan submitted under §63.1207(e). [§63.1209(j)(1)(i)]
- bbb. As an indicator of gas residence time in the control device, the permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that is documented 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)]
- ccc. The permittee 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)]
- ddd. The permittee must specify operating parameters and limits to insure that good operation of each hazardous waste firing system is maintained. [§63.1209(j)(4)]
- eee. The permittee 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)]
- fff. The permittee must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. The permittee must establish the hourly rolling average limit as the average of the test run averages. [§63.1209(k)(1)(i)]
- ggg. The permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee must document the temperature measurement location in the test plan. [§63.1209(k)(2)(i)]
- hhh. As an indicator of gas residence time in the control device, the permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter which is an appropriate surrogate for residence time. [§63.1209(k)(3)(i)]
- iii. The permittee must establish limits on the maximum pumpable and total (pumpable and nonpumpable) waste feedrate for each location where waste is fed. [§63.1209(k)(4)(i)]
- jjj. The permittee must comply with the particulate matter emission standard by establishing and complying with the operating parameter limits found in §63.1209(m) of this subpart. [§63.1209(m)]

- kkk. If the combustor is equipped with a baghouse, the permittee must establish a limit on the minimum pressure drop and the maximum pressure drop across each baghouse cell based on manufacturer's specifications. The permittee must comply with the limit on an hourly rolling average. [§63.1209(m)(1)(ii)]
- lll. The permittee 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.
  - i. The permittee must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device on an hourly rolling basis as the average of the test run averages. [§63.1209(n)(1)]
  - ii. The permittee must establish feedrate limits for semivolatile metals and low volatile metals. [§63.1209(n)(2)(i)]
  - iii. The permittee must establish operating parameter limits on the particulate matter control device as specified by paragraph 63.1209(m)(1). [§63.1209(n)(3)]
  - iv. The permittee must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the average hourly rolling averages for each run. [§63.1209(n)(4)]

[§63.1209(n)]

- mmm. If the permittee complies with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining combustion chamber zone pressure lower than ambient pressure, the permittee must monitor the pressure instantaneously and the automatic waste feed cutoff system must be engaged when negative pressure is not maintained at any time. [§63.1209(p)]

#### *Notification Requirements*

- nnn. The permittee shall submit all of the applicable notifications prior to the deadlines established in this subpart. [§63.1210(a)(1)]
- ooo. The permittee must submit the required notifications outlined in this section to the Administrator in order to request or elect to comply with the alternative requirements contained in this subpart. [§63.1210(a)(2)]
- ppp. 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 Document of Compliance or a previous Notification of Compliance are no longer applicable. [§63.1210(d)(2)]

*Recordkeeping and Reporting Requirements*

- qqq. The permittee shall submit the reports required by this subpart to the Administrator prior to the deadlines set forth in this subpart. [§63.1211]

*Procedure for Extending the Compliance Date*

- rrr. The permittee may request an extension of the compliance date to install pollution prevention or waste minimization controls provided that the conditions outlined in this section are met. [§63.1213]

12. This facility is considered an affected facility and is subject, but not limited to, the following requirements. The referenced requirements will also include the applicable Subpart LLL NESHAP amendments promulgated by the EPA and as incorporated in the Code of Federal Regulations. [§19.304 of Regulation 19 and 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry*]

*Standards for kilns*

- a. The permittee shall not cause to be discharged into the atmosphere from these affected sources any gases which:
- i. 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.
  - ii. Exhibit opacity greater than 20 percent.
  - iii. Contain D/F in excess of:
    1. 0.20 ng per dscm ( $8.7 \times 10^{-11}$  gr per dscf) (TEQ) corrected to seven percent oxygen; or
    2. 0.40 ng per dscm ( $1.7 \times 10^{-10}$  gr per dscf) (TEQ) corrected to seven percent oxygen, 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)]
- b. A kiln subject to the D/F limitation under §63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph (b) of this section.  
[§63.1344(a)]

- c. The temperature limit for affected sources meeting the limits of paragraph (a) of this section or paragraphs (a)(1) through (a)(3) of this section is determined in accordance with §63.149(b)(3)(iv). [§63.1344(b)]

*Standards for Clinker Coolers*

- d. The permittee shall not cause to be discharged into the atmosphere from any clinker cooler any gases which:
  - i. Contain particulate matter in excess of 0.050 kg per Mg (0.10 lb per ton) of feed (dry basis) to the kiln.
  - ii. Exhibit opacity greater than 10 percent.

[§63.1345(a)]

*Standards for Raw and Finish Mills*

- e. The permittee shall not cause to be discharged from the mill sweep or air separator air pollution control devices for each finish mill any gases which exhibit opacity in excess of ten percent. [§63.1347]

*Standards for affected sources other than kilns; in-line kilns/raw mills; new and reconstructed raw material dryers; and raw and finish mills*

- f. 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; and each existing raw material dryer, at a facility which is a major source subject to the provision 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]

*Performance testing requirements*

- g. The permittee shall use the test methods and procedures contained in this section to demonstrate compliance with the emissions limits set forth by this subpart. [§63.1349]

*Monitoring requirements*

- h. 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 permittee shall also comply with all applicable monitoring requirements contained in this section. [§63.1350]

*Compliance dates*

- i. Existing sources shall comply with this subpart no later than June 14, 2002. [§63.1351(a)]
- j. The compliance date for new construction or reconstruction after March 24, 1998 is immediately upon start of operations. [§63.1351(b)]

*Notification requirements*

- k. The permittee shall comply with all applicable notification requirements set forth in this section. [§63.1353(a)]

*Reporting Requirements*

- l. The permittee shall comply with all applicable reporting requirements set forth in this section. [§63.1354(a)]

*Recordkeeping Requirements*

- m. The permittee shall comply with all applicable recordkeeping requirements set forth in this section. [§63.1355(a)]
- 13. The facility shall develop and implement a written startup, shutdown, and malfunction plan for sources subject to 40 CFR 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors*. The plan shall include those items listed in 40 CFR 63.6(e)(3) et seq. The plan shall be maintained on site and be available to Department personnel upon request. [§19.304 and 40 CFR 63.6(e)(3)(i)]
  - 14. The facility shall develop and implement a written startup, shutdown, and malfunction plan for sources subject to 40 CFR 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*. The plan shall include those items listed in 40 CFR 63.6(e)(3) et seq. The plan shall be maintained on site and be available to Department personnel upon request. [§19.304 and 40 CFR 63.6(e)(3)(i)]
  - 15. The visible emission observations shall be used as a method of compliance verification for the opacity limits assigned for the sources whose Specific Conditions reference this Plantwide Condition. The monthly observations shall be conducted by someone familiar with the facility's visible emissions.
    - a. If during the observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
      - i. Take immediate action to identify the cause of the visible emissions,

- ii. Implement corrective action, and
  - iii. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9. This reading shall be conducted by a person trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
  - iv. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.
- b. The permittee shall maintain records related to all visible emission observations and Method 9 readings. These records shall be updated on an as-performed basis. These records shall be kept on site and made available to Department personnel upon request. These records shall contain:
  - i. The time and date of each observation/reading any observance of visible emissions appearing to be above permitted limits or any Method 9 reading which indicates exceedance,
  - ii. The cause of any observed exceedance of opacity limits, corrective actions taken, and results of the reassessment, and
  - iii. The name of the person conducting the observation/reading.

[§18.1004 of Regulation 18, 40 CFR Part 63, Subpart LLL and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

16. The permittee may choose to comply with the emission standards set forth in 40 CFR part 63, Subpart LLL when hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period time not less than the hazardous waste residence time). The permittee must document in the facility record when they are operating under 40 CFR 63, Subpart LLL. These records shall be maintained on site and made available to Department personnel upon request. [§19.304 of Regulation 19, and 40 CFR Part 63, Subpart EEE, §63.1206(b)(1)]

## **Title VI Provisions**

17. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]
- a. All containers containing a class I or class II substance 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 to 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 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.
18. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]
- 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 record keeping 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 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.
19. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
20. 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 the system used on passenger buses using HCFC 22 refrigerant.
21. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G.

**Permit Shield**

22. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in the following table of this condition. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated October 1996, as amended in September 1997, December 1998, April 1999, and October 2000.

**Applicable Regulations**

<b>Source No.</b>	<b>Regulation</b>	<b>Description</b>
F19, F20	40 CFR 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
P1, P2, P3	40 CFR 63, Subpart EEE	Emission Standards for Hazardous Waste Combustors
P5, P6, P8, P10, P11, P12, P13, P15, P16, P17, P18, P19, P20, P26, P27, P28, P29, P30, P31, M1, M3, M4, M8, M9, M10, M11, M12, M13, M14, M15, M16, M17, M18, M19, M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M40, M42, M43, M44, M45, S1, S3-S13, C1-C11, C13-C21, C26-C28, C32-C37, C41-C44	40 CFR 63, Subpart LLL	Emission Standards for Portland Cement Plants
F19, F20 Facility	40 CFR 61, Subpart FF 40 CFR 63, Subpart DD	Benzene Waste Operations
Facility	Arkansas Regulation 19	Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control



Source No.	Regulation	Description
Facility	Arkansas Regulation 26	Regulations of the Arkansas Operating Air Permit Program

The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated October 1996, as amended September 1997, December 1998, and April 1999.

#### Inapplicable Regulations

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
New Source Performance Standards	40 CFR 60, Subpart F	P1, P2, P3, P6, M16, M17, M18, M19, M20, M42, M43, M44, S4, S6, S7, S8, S9, S10, S11, S12, S13, C13, C14, C18	Units were constructed prior to the effective date of the subpart
New Source Performance Standards	40 CFR 60, Subpart Y	P4, P7, P9, P24	Final Direct Rule (April 5, 2002) [FR-7168-1]
New Source Performance Standards	40 CFR 60, Subpart OOO	Facility	Sources installed before applicability date or subject to Subpart F are exempt from OOO.
National Emission Standards for Hazardous Air Pollutants	40 CFR 61, Subpart DD	Facility	Facility subject to FF exempt from requirements of this subpart.

## SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated October 30, 2000. [Regulation 26, §26.304]

Description	Category
Piles associated with clean-up	Group A, #13
Auxiliary drive to turn kilns	Group A, #13
11,000 gallon oil tank	Group A, #13
11,000 gallon oil tank	Group A, #13
250 gallon fuel tank	Group A, #2
10,000 gallon diesel UST	Group A, #3
10,000 gallon unleaded UST	Group A, #13
8,000 diesel tank	Group A, #3
600 gallon tank	Group A, #3

## **SECTION VIII: GENERAL PROVISIONS**

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective August 10, 2000]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26, §26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, et seq. (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation 26, §26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit. [40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]
  - a. The date, place as defined in this permit, and time of sampling or measurements;
  - b. The date(s) analyses performed;
  - c. The company or entity performing the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of such analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.
6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample,

measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every six (6) months. If permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below: [40 C.F.R. 70.6(a)(3)(iii)(A) and Regulation 26, §26.701(C)(3)(a)]

Arkansas Department of Environmental Quality  
Air Division  
ATTN: Compliance Inspector Supervisor  
Post Office Box 8913  
Little Rock, AR 72219

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
  - a. For all upset conditions (as defined in Regulation 19, § 19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
    - i. The facility name and location
    - ii. The process unit or emission source deviating from the permit limit,
    - iii. The permit limit, including the identification of pollutants, from which deviation occurs,
    - iv. The date and time the deviation started,
    - v. The duration of the deviation,
    - vi. The average emissions during the deviation,
    - vii. The probable cause of such deviations,
    - viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
    - ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The

permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Regulation 19, §19.601 and §19.602, Regulation 26, §26.701(C)(3)(b), and 40 CFR 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §26.701(F)(1)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]
12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]
14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director

- along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26, §26.701(G)]
  16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation 26, §26.701(H)]
  17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]
  18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]
  19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]
  20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §26.703(B)]
    - a. Enter upon the permittee's premises where the permitted source is located or 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 required under the conditions of this permit;
    - c. Inspect at reasonable times 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 Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
  21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also

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submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26, §26.703(E)(3)]

- a. The identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status;
  - c. Whether compliance was continuous or intermittent;
  - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit;
  - e. and Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [Regulation 26, §26.704(C)]
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
  - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act or,
  - d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

