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Arkansas Department of Pollution Control and Ecology  
Division of Air Pollution Control

Summary Report Relative to Permit Application

Submitted By: Ash Grove Cement Company  
d/b/a Ash Grove Foreman Cement  
Foreman (Little River County)

CSN: 410001 Permit No.: 75-AR-4 Date Issued: 1/29/88

Submittals: Aug. 20, 1986; Sept. 9, 1986; Sept. 23, 1986;  
Oct. 9, 1986; Oct. 14, 1986; Nov. 13, 1986; Nov. 20, 1986;  
Nov. 21, 1986; Dec. 8, 1986; Feb. 19, 1987; March 6, 1987;  
April 3, 1987; May 28, 1987

Summary

The Ash Grove Cement Company owns and operates a portland cement plant near Foreman known as Ash Grove Foreman Cement. This plant was previously permitted as Arkansas Cement Corporation and was previously owned by Arkla Gas.

This permit will consolidate all existing emission sources at Ash Grove into one permit, formally change the owner of record to Ash Grove Cement Company and place certain restrictions on Ash Grove's use of waste derived fuel (WDF).

Ash Grove uses the wet process to make cement. In this process limestone slurry is added to one of three rotary kilns. The slurry is fed into the upper end of the kiln and travels slowly to the lower end. As the material travels towards the flame it is dried, decarbonated, and calcined. Finally, at the lower end of the kiln the material burns and fuses together to form clinker. The clinker is cooled, mixed with gypsum, and ground to the desired fineness. After grinding, the cement is stored for later packaging and shipping.

Each kiln is equipped with an electrostatic precipitator (ESP) which controls particulate emissions and each ESP has two stacks. The three clinker coolers (which once had their own stacks) are ducted to one baghouse (SN-7).

Installation: July 1986  
Reviewed By: Mike Porta  
Applicable Regulation: Air Code

Operation: September 1986  
Approved By: Wilson Tolefree  
SIP

Specific Conditions

1. The permittee shall maintain and operate the KVB gas monitoring system as described in the October 14, 1986 addendum to the permit application.
2. The feed of WDF to any kiln shall be stopped if the exhaust gases of that kiln have a nitrogen oxides (NOx) concentration less than 200 ppm or a carbon monoxide (CO) concentration greater than 400 ppm as measured by the KVB gas monitoring system.
3. In addition to WDF and coal, the permittee may also burn oil and/or natural gas.
4. The permittee shall comply with the emission limits in Table I.
5. The waste derived fuel shall meet the specifications listed in Table II on an as received basis.
6. The permittee shall sample at least one load of WDF per day. This data will be evaluated to determine if the fuel shipments are meeting required specifications and to determine if the fuel vendor's sample analysis is accurate.

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TABLE I  
 Allowable Emission Rate

#	Source Description	Control Equipment	Pollutant	Allowable Emission Rate
SN-1 and SN-1a	Kiln #1 - Chem Fuel	ESP	TSP	5 lb/hr
			SO2	---
			Cl	13 lb/hr
			Pb	0.002 lb/hr
			Cr	0.001 lb/hr
			Opacity	20%
SN-1 and SN-1a	Kiln #1 - Coal	ESP	TSP	17 lb/hr
			SO2	225 lb/hr
			Cl	---
			Pb	0.014 lb/hr
			Cr	0.001 lb/hr
			Opacity	20%
SN-2 and SN-2a	Kiln #2 - Chem Fuel	ESP	TSP	5 lb/hr
			SO2	---
			Cl	13 lb/hr
			Pb	0.002 lb/hr
			Cr	0.001 lb/hr
			Opacity	20%
SN-2 and SN-2a	Kiln #2 - Coal	ESP	TSP	19.1 lb/hr
			SO2	225 lb/hr
			Cl	---
			Pb	0.014 lb/hr
			Cr	0.001 lb/hr
			Opacity	20%
SN-3 and SN-3a	Kiln #3 - Chem Fuel	ESP	TSP	5 lb/hr
			SO2	---
			Cl	13 lb/hr
			Pb	0.002 lb/hr
			Cr	0.001 lb/hr
			Opacity	20%
SN-3 and SN-3a	Kiln #3 - Coal	ESP	TSP	22.8 lb/hr
			SO2	337 lb/hr
			Cl	---
			Pb	0.014 lb/hr
			Cr	0.001 lb/hr
			Opacity	20%
SN-7	Clinker Cooler	Baghouse	TSP	25 lb/hr
			Opacity	10%
SN-8	Clinker Handling	Baghouse	TSP	1 lb/hr
			Opacity	5%

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TABLE II  
Waste Derived Fuel Specifications

Parameter	Specifications
Heat of Combustion	Range: 6,000-20,000 Btu/lb Avg.: 11,700
Ash Content	10% wt. or less
Sulphur content	1% or less
Moisture content	No free water
Metals*	Less than 0.3% wt.
Chlorine content	Less than 3.5% wt. as burned Less than 10% wt. as received
Flash point	Flammable (less than 140 F)
Pesticides or Pesticide by-products	Less than 50 ppm Pesticides or Pesticide by-products

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\* "Metals" means arsenic, silver, cadmium, lead, chromium, and mercury.