ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
DIVISION OF AIR POLLUTION CONTROL

Summary Report Relative to Permit Application

Submitted By: Ash Grove Cement Company
Highway 108 West
P.O. Box 130
Foreman, AR 71836
Little River County
Contact Position - Plant Manager
Telephone - (870) 542-6217

CSN: 41-0001 **Permit No.:** 75-AR-9 **Date Issued:** 2/11/98

Submittals: August 23, 1996; October 10, 1996

Summary

The Ash Grove Cement Company (AGC) owns and operates a portland cement plant near Foreman, Arkansas. This facility is a "major stationary source" subject to the requirements of Regulation No. 19 - Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control and newly subject to the federal operating permit program administered under the provisions of Arkansas Regulation No. 26 - Regulations of the Arkansas Operating Air Permit Program. AGC is also subject to federal air pollution control regulations specific to portland cement plants, control of volatile organic compound (VOC) emissions, and "benzene waste operations."

In addition to traditional fuels such as coal and natural gas, AGC burns liquid and solid hazardous waste derived fuels (HWDF). AGC's use of HWDF is regulated by federal hazardous waste management regulations governing the burning of hazardous waste for energy recovery in boilers and industrial furnaces (Ref. 40 CFR 266, the "BIF Rule"). The BIF Rule was promulgated to meet specific requirements of Subtitle C of the federal Resource Conservation and Recovery Act (RCRA).

This modification authorizes AGC to burn waste tires as solid waste derived fuel (SWDF). In addition, the permit limits for emissions of SO_2, NO_x and CO are being modified. The burning of the new SWDF will not result in increases to permitted emission limits and was not the basis or purpose

Installation: Upon Issuance **Operation:** Upon Issuance
Reviewed By: Mark McCorkle **Approved By:** Keith Michaels
Applicable Regulation: Air Code SIP NSPS NESHAP

of the modification to these limits. The change in emission limits was initiated by the Arkansas Department of Pollution Control & Ecology in a letter dated July 15, 1994.

The raw materials used in the production of cement include chalk, sand, and iron ore. The chalk is received from a near-by quarry and stored in an A-frame structure. The sand and iron ore are stored in open piles. From the storage piles, the raw materials are transferred to bins in the mill building. The raw materials are proportioned, mixed with water, and ground into a slurry.

The slurry is pumped to one of three rotary kilns, introduced into the upper end of the kiln and travels slowly toward the lower end. Coal, natural gas, and liquid HWDF are fired at the lower end of the kiln. Containerized solid HWDF or SWDF is fed from a location in the mid-section of the kiln. Solid HWDF and SWDF are not used concurrently. Cement clinker is produced when the high temperature produced by the burning of the fuels causes the slurry to calcine. At the lower end of the kiln, the calcined material fuses together to form clinker.

The clinker is cooled, then mixed with gypsum, and sometimes chalk, to form cement. The exact proportions depend on whether portland cement or masonry cement is being made. The cement is ground to the desired fineness. After grinding, the cement is stored for later packaging and shipping.

AGC operates continuous emissions monitoring systems (CEMS) on each of the three cement kiln exhaust stacks. These monitors continuously measure the stack gas flow rate and the stack gas concentrations of sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), total hydrocarbons (THC) and oxygen (O_2). The data from the flow rate monitor is used to calculate the emission rate of SO_2, NO_x and CO. The CEMS are used to determine compliance with the permit emission limits for SO_2, NO_x and CO.

Eight (8) permitted storage tanks, two existing and six proposed, are subject to the requirements of two separate federal air regulations [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; and, 40 CFR 61 Subpart FF - Benzene Waste Operations]. The tanks are vented to a liquid nitrogen recovery condenser that removes VOCs contained in the vent gas stream and returns the condensate to the storage tanks. A carbon adsorption system is used to control emissions when the condenser system is being defrosted or otherwise out of service. When the proposed tanks are installed, the existing tanks will be removed from service and the new tanks will be vented to the nitrogen condenser system.

Specific Conditions

1. Hazardous waste derived fuel (HWDF), coal, natural gas and waste tires are the only fuels that shall be introduced to the kilns.

2. The Permittee shall comply with all emission limits specified in Tables 1 and 2 herein. Table 3 is a summary of the total permitted emissions of the pollutants in Tables 1 and 2. When demonstrating compliance with these limits, the Permittee shall use the test methods delineated in Table 4, herein. Compliance tests are to be designed such that compliance with each limit is demonstrated either simultaneously, or, at substantially equivalent operating conditions.

3. The Permittee shall maintain and operate a continuous emission monitoring systems (CEMS)for each kiln. The CEM for each kiln shall continuously monitor and record the stack gas concentrations of sulfur dioxide (SO_2), nitrogen oxides (NO_x), and carbon monoxide (CO) and the stack gas flow rate.

4. All continuous emission monitors that are used to demonstrate compliance with the mass emission limits contained in this Permit shall comply with the applicable conditions contained in CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS, Attachment D to this Permit. The monitoring data obtained from these instruments shall be used to demonstrate compliance with Air Permit limits.

5. The opacity of visible emissions from each source identified in Table 1 shall not exceed the corresponding percentage contained in Table 1. When demonstrating compliance with these opacity limits, the Permittee shall use EPA Reference Method 9.

6. SN-62 (Clinker Hopper Loading) and SN-63 (Clinker Discharge to Railcar/Truck) and all material handling operations related to the movement of clinker from storage piles to railcars or trucks are subject to the federal requirements of 40 CFR 60 Subpart F - Standards of Performance for Portland Cement Plants. The opacity of particulate emissions from these sources and operations shall not exceed 10% as measured by Reference Method 9.

7. The eight (8) fuel storage tanks identified in the application submittal dated January 7, 1994, as HWT1, HWT2, LWDF3, LWDF4, LWDF5, LWDF6, LWDF7, and LWDF8 two (2) closed vent systems serving these tanks, the liquid nitrogen condenser system, and the back-up carbon adsorption system are subject to the federal New Source Performance Standards contained in 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, and the National Emission Standards for Hazardous Air Pollutants contained in 40 CFR 61 Subpart FF - Benzene Waste Operations. In this Permit, SN-08 is the vent stack of the condenser currently serving tanks HWT1 and HWT2 and SN-09 is the vent from the back-up carbon adsorption system.

8. Each fuel storage tank identified in Specific Condition 7 shall be operated with no detectable emissions, as indicated by an instrument reading less than 500 ppmv above background, from the cover and all openings (e.g., access hatches, sampling ports, gauge wells, etc.). Compliance with this Condition shall be determined initially, and thereafter at least once per year, by the methods specified in Section 61.355(h) of 40 CFR 61.

9. For each fuel storage tank identified in Specific Condition 7, each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

10. Each closed-vent system, the liquid nitrogen condenser and the carbon adsorption system identified in Specific Condition 7 shall be designed and operated in accordance with the requirements of Section 61.349 of 40 CFR 61. Each of these components shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background. Compliance with this Specific Condition shall be determined initially, and thereafter at least once per year, by the methods specified in 40 CFR 61.355(h).

11. Each closed vent system and the liquid nitrogen condenser described in Specific Condition 7 shall be operated at all times that waste is placed in the tanks served by the closed vent system except when maintenance or repair cannot be completed without a shutdown of the control device.

12. The liquid nitrogen condenser system shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. When required, the control device efficiency shall be determined by conducting a performance test that meets the requirements of 40 CFR Part 61 Section 61.355.

13. Each gauging and sampling device associated with the closed vent systems, condenser and carbon adsorption device identified in Specific Condition 7 shall be gas-tight except when gauging or sampling is taking place.

14. Storage tank vent gases shall be routed to the carbon adsorption system described in Specific Condition 7 (SN-09) only when the liquid nitrogen condenser system is isolated from service for the purpose of being defrosted.

15. Loading of any fuel storage tank described in Specific Condition 7 shall not be allowed at any time that the associated closed vent system is routed to the carbon adsorption system (SN-09).

16. Each closed-vent system described in Specific Condition 7 shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices (i.e. associated liquid nitrogen condenser systems and carbon adsorption systems) for evidence of visible defects such as holes in ductwork or piping and loose connections.

17. If visible defects are observed during an inspection or, if other problems are identified or, if detectable emissions are measured, a first effort to repair the closed-vent system shall be made as soon as practicable but no later than 15 calendar days after the emissions are detected or the visible defect is observed. Delay of repair of the unit will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. In the event that emissions are detected or a visible defect is observed, the Permittee shall notify the Department, in writing, no later than 15 calendar days after the emissions are detected or the visible defect is observed.

18. For the condenser system described in Specific Condition 7, the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder. The temperature monitor shall have sensors located in the exhaust stream from the condenser and in the coolant fluid exiting the condenser. These temperature monitors shall have an accuracy of $\pm$ 1 percent of the temperature being monitored or $\pm$ 0.5° C., whichever is greater. The Permittee shall inspect, at least once each operating day, the data recorded by these temperature recorders to ensure that the condenser system is working properly.

19. The Permittee shall follow all reporting and recordkeeping requirements of 40 CFR 61 Sections 61.356 and 61.357. Reports shall be directed to the Compliance Section Manager, Air Division.

Table 1 - Allowable Opacity and Particulate Emission Rates				
Source #	**Description**	**Opacity (%)**	**PM_{10} Limit**	
			lb/hr	**ton/yr**
SN-01	Kiln #1	20	19.5	85.4
SN-02	Kiln #2	20	19.5	85.4
SN-03	Kiln #3	20	27.0	118
SN-04	Chalk Pile	20	1.38	6.0
SN-05	Discharge of Gypsum Belt	20	0.11	0.48
SN-06	Gypsum Pile	10	0.05	0.22
SN-07	Clinker Cooler Dust Collector	20	25.0	110
SN-10	Sand-Iron Ore Storage Pile	10	0.001	0.004
SN-11	Sand Storage Pile	10	0.02	0.09
SN-12	Iron Ore Storage Pile	10	0.001	0.004
SN-13	Truck Dumping to Gypsum Hopper	10	0.03	0.13
SN-14	Discharge of Gypsum Feeder	10	0.01	0.04
SN-15	Discharge of Sand-Iron Ore Feeder	10	0.04	0.18
SN-16	#2 Finish Mill Dust Collector	10	1.71	7.5
SN-17	#2 Finish Mill Discharge Dust Collector	10	1.13	5.0
SN-18	#4 Finish Mill Dust Collector	10	2.13	9.3
SN-19	#4 Finish Mill Discharge Dust Collector	10	2.65	12
SN-20	Dryer Scrubber	10	1.43	6.3
SN-21	Long Term Coal Pile	20	0.77	3.4
SN-22	Long Term Coal Pile	20	0.52	2.3
SN-23	Coal Dump Hoppers (2)	20	0.52	2.3
SN-24	Coal Hopper Feeders	20	0.52	2.3
SN-25	Coal Stacker Belt	20	0.52	2.3
SN-26	Kaiser Silo Dust Collector	10	0.94	4.1

Table 1 - Allowable Opacity and Particulate Emission Rates				
Source #	**Description**	**Opacity (%)**	**PM_{10} Limit**	
			lb/hr	**ton/yr**
SN-27	Oil Well Dust Collector	10	0.31	1.4
SN-28	Delta Silo Dust Collector	10	0.69	3.0
SN-29	Rail Silo Dust Collector	10	1.37	6.0
SN-30	Type III Dust Collector	10	0.31	1.4
SN-31	Masonry Cement Dust Collector	10	0.31	1.4
SN-32	Rail Loadout Dust Collector	10	0.86	3.8
SN-33	Portland Packer Dust Collector	10	0.94	4.1
SN-34	Masonry Packer Dust Collector	10	0.94	4.1
SN-35	Truck Loadout Dust Collector	10	0.88	3.9
SN-36	Active Coal Pile	20	0.88	3.9
SN-37	Type III Loadout Bin Dust Collector	10	0.51	2.2
SN-38	Type II Loadout Bin Dust Collector	10	0.77	3.4
SN-39	Clinker Dust Handling	10	0.09	0.39
SN-40	#1 CKD Bin Dust Collector	10	0.28	1.2
SN-41	#2 CKD Bin Dust Collector	10	0.28	1.2
SN-42	Clinker Transfer Point Dust Collector	10	0.77	3.4
SN-43	Clinker Transfer Point Dust Collector	10	0.77	3.4
SN-44	Clinker Transfer Point Dust Collector	10	0.77	3.4
SN-45	Clinker Transfer Point Dust Collector	10	0.31	1.4
SN-46	Clinker Transfer Point Dust Collector	10	0.31	1.4
SN-47	Clinker Transfer Point Dust Collector	10	0.31	1.4
SN-48	Clinker Transfer Point Dust Collector	10	0.31	1.4
SN-49	Clinker Transfer Point Dust Collector	10	0.51	2.2
SN-50	Clinker Transfer Point Dust Collector	10	0.17	0.74

Table 1 - Allowable Opacity and Particulate Emission Rates				
Source #	**Description**	**Opacity (%)**	**PM_{10} Limit**	
			lb/hr	**ton/yr**
SN-51	Clinker Transfer Point Dust Collector	10	0.17	0.74
SN-52	Clinker Transfer Point Dust Collector	10	0.17	0.74
SN-53	Clinker Transfer Point Dust Collector	10	0.17	0.74
SN-54	Clinker Transfer Point Dust Collector	10	0.17	0.74
SN-55	Clinker Transfer Point Dust Collector	10	0.17	0.74
SN-56	#1 Clinker Silo Dust Collector	10	0.77	3.4
SN-57	#2 Clinker Silo Dust Collector	10	0.31	1.4
SN-58	Blister Bin Dust Collector	10	0.41	1.8
SN-59	Outside Clinker Belt Discharge	20	1.0	4.4
SN-60	Clinker Transfer Tower Dust Collector	20	3.42	15
SN-61	Secondary Crusher Discharge	10	0.05	0.22
SN-62	Clinker Hopper Loading	10	0.01	0.04
SN-63	Clinker Discharge to Railcar/Truck	10	0.32	1.4
SN-65	Cement Truck Loading Dust Collector	10	1.37	6.0
SN-66	Outside Clinker Hopper Loading	10	0.56	0.45
SN-67	Bin 36 Dust Collector	10	0.41	1.3
SN-68	Bin 37 Dust Collector	10	0.41	1.3
SN-69	Bin 38-41 Dust Collector	10	0.41	1.3
SN-70	Bin 42-45 Dust Collector	10	0.41	1.3
TOTAL	**ALL SOURCES**	---	**130**	**567**

TABLE 2 - Allowable Emission Rates of SO_2, CO, NO_x, Pb & VOC			
Source Number	**Pollutant**	**Emission Limit**	
		lb/hr 1-hr. avg.	**ton/yr rolling monthly avg.**
SN-01 Kiln 1	SO_2	849	1960
	CO	172	368
	NO_x	889	2400
	Pb	0.06	0.263
SN-02 Kiln 2	SO_2	753	1690
	CO	152	333
	NO_x	882	2450
	Pb	0.06	0.263
SN-03 Kiln 3	SO_2	961	2090
	CO	220	482
	NO_x	1568	4230
	Pb	0.10	0.438
SN-08 Nitrogen Condenser System	VOC	0.68	3.0

Table 3 - Emission Rate Summary	
Pollutant	**Potential Emissions (tons per year)**
PM_{10}	567
SO_2	5740
CO	1183
NO_x	9080
Pb	0.964
VOC	3.0

Table 4 - Test Methods for Compliance Demonstrations	
Pollutant	**Test Method**
PM_{10} as total particulate (alternate method) PM_{10} as PM_{10} (alternate method)	40 CFR 60 App. A - Method 5 40 CFR 266 App. IX - Method 0050 40 CFR 51 App. M - Method 201 40 CFR 51 App. M - Method 201A
sulfur dioxide - SO_2	40 CFR 60 App. A - Method 6C
nitrogen oxides - NO_x	to be determined
carbon monoxide - CO	40 CFR 60 App. A - Method 10 (Continuous)
Lead - Pb (alternate method)	40 CFR 60 App. A - Method 12 40 CFR 266 App. IX - Multiple Metals Train
volatile organics (VOC)	40 CFR 60 App. A - Method 18
opacity	40 CFR 60 App. A - Method 9

Attachment A - Calculations

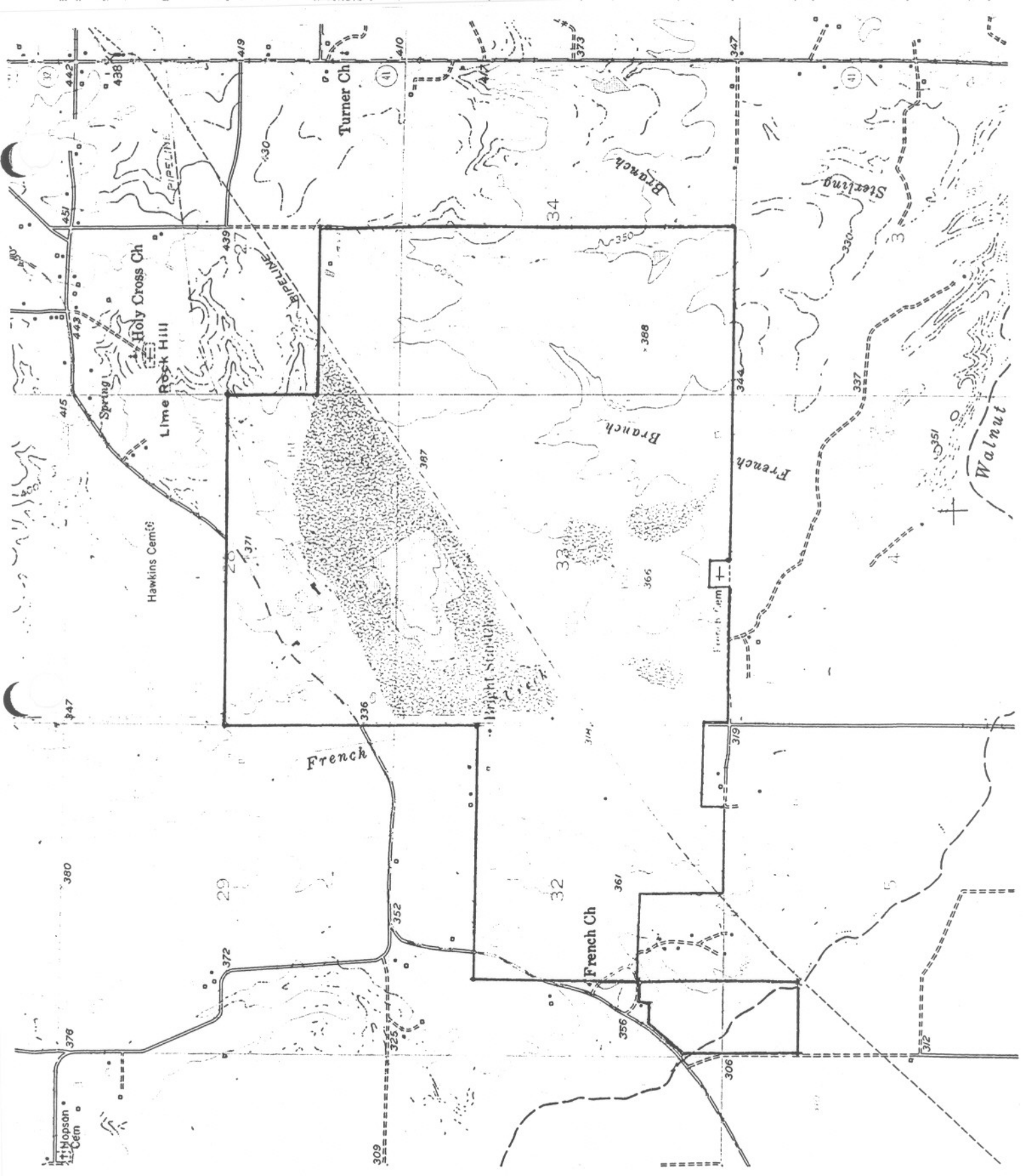
SN-01 - revised NO_x, SO_2 and CO per requested limits based on monitoring data as contained in Title 5 application.

SN-02 - revised NO_x, SO_2 and CO per requested limits based on monitoring data as contained in Title 5 application.

SN-03 - revised NO_x, SO_2 and CO per requested limits based on monitoring data as contained in Title 5 application.

no changes to other point or fugitive source limits

Attachment B - Location Map



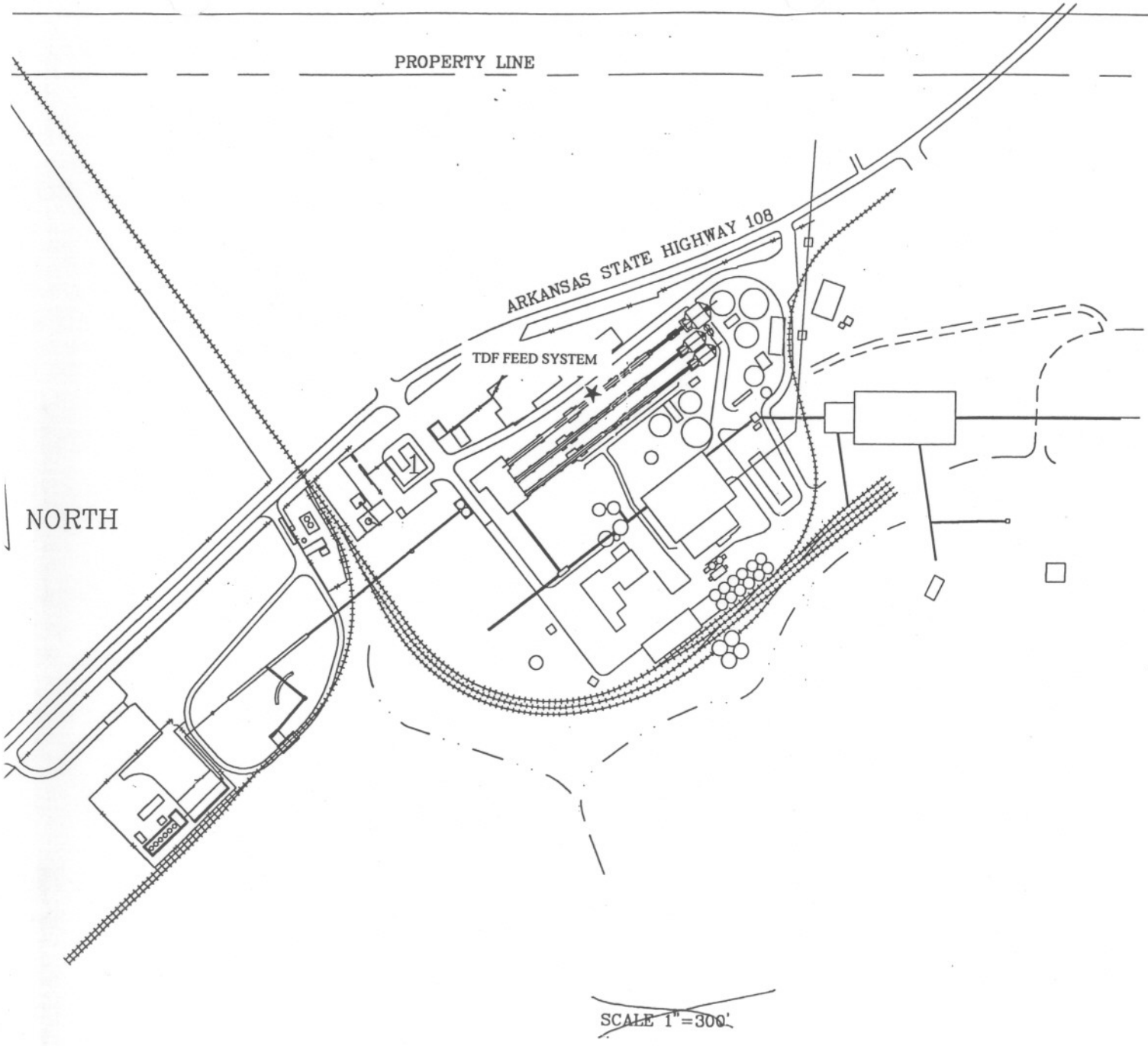
ASH GROVE CEMENT COMPANY

PROPERTY BOUNDARIES

FOREMAN QUAD

N

Attachment C - Plot Plan



Ash Grove Cement Comp

Foreman, Arkansas

TIRE-DERIVED FUEL PROGRAM

Attachment D - Monitoring Conditions

Arkansas Department of Pollution Control & Ecology

CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

Revised October 1996

SECTION I

DEFINITIONS

Continuous Emission Monitoring System (CEMS) - The total equipment required for the determination of a gas concentration and/or emission rate so as to include sampling, analysis and recording of emission data. [1]

Calibration Drift (CD) - The difference in the CEMS output reading from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustments took place. [2]

Primary CEMS - The main reporting CEMS with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate.

Back-up CEM (Secondary CEM) - A CEM with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate. This CEM is to serve as a back-up to the primary CEMS to minimize monitor downtime.

Out-of-Control Period - Begins with the hour corresponding to the completion of a daily calibration error, linearity check, or quality assurance audit that indicates that the instrument is not measuring and recording within the applicable performance specifications. Out-of-Control Period ends with the hour corresponding to the completion of an additional calibration error, linearity check, or quality assurance audit following corrective action that demonstrates that the instrument is measuring and recording within the applicable performance specifications. [3]

Monitor Downtime - Any period during which the CEMS is unable to sample, analyze and record a minimum of four evenly spaced data points over an hour, except during one daily zero-span check during which two data points per hour are sufficient.

Excess Emissions - Any period in which the emissions exceed the permit limits.

SECTION II

MONITORING REQUIREMENTS

A. For new sources, the installation date for the CEMS shall be no later than thirty (30) days from the date of start-up of the source. [4]

B. For existing sources, the installation date for the CEMS shall be no later than sixty (60) days from the issuance of the permit unless a specific date is required by the permit. [4]

C. Within sixty (60) days of installation of a CEMS, a performance specification test (PST) must be completed. PST's are defined in 40 CFR, Part 60, Appendix B, PS 1-9. The Department may accept alternate PSTs for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall be approved, in writing, by the Compliance Inspector Supervisor prior to testing. [5]

D. Each CEMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjusted whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performance specification in 40 CFR, Part 60, Appendix B. Before any adjustments are made to either the zero or span drifts measured at the 24-hour interval the excess zero and span drifts measured must be quantified and recorded. [6]

E. All CEMS shall be in continuous operation and shall meet minimum frequency of operation requirements of 95% up-time for each quarter for each pollutant measured. Failure to maintain operation time shall constitute a violation of the CEMS conditions. [18]

F. All sources with a CEMS shall meet 95% compliance per quarter for each pollutant. Failure to maintain compliance shall constitute a violation of the CEMS conditions. [18]

G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen minute period unless more cycles are required by the permit. For each CEMS, one-hour averages shall be computed from four or more data points equally spaced over each one hour period unless more data points are required by the permit. [7]

H. When the pollutant from a single affected facility is released through more than one point, a CEMS shall be installed on each point unless installation of fewer systems is approved, in writing, by the Compliance Inspector Supervisor. When more than one CEMS is used to monitor emissions from one affected facility (e.g. multiple breaching or multiple exhaust) the owner or operator shall report the results as required from each CEMS. [8]

SECTION III

NOTIFICATION AND RECORD KEEPING

A. When requested to do so by an owner or operator, the Compliance Inspector Supervisor will review plans for installation or modification for the purpose of providing technical advice to the owner or operator. [9]

B. Each facility which operates a CEMS shall notify the Compliance Inspector Supervisor of the date for which the demonstration of the CEMS performance will commence (ie. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 days prior to testing. [10]

C. Each facility which operates a CEMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative. [11]

D. Each facility required to install a CEMS shall submit an excess emission and monitoring system performance report to the Department (Attention: Air Division, Compliance Inspector Supervisor) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter. [12]

E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on ADPC&E Quarterly Excess Emission Report Forms. These forms may be obtained from the Air Division of the Little Rock office of ADPC&E. Alternate forms may be used with the prior written approval from the Department. [13]

F. Each facility which operates a CEMS must maintain on site a file of CEMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for two years, and is required to be maintained in such a condition that it can easily be audited by an inspector. [14]

G. Quarterly reports shall be used by the Department to determine compliance with the permit. Violations of the CEMS Conditions may result in penalties and/or other enforcement action. [18]

SECTION IV

QUALITY ASSURANCE/QUALITY CONTROL

A. For each CEMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to the Department (Attn.: Air Division, Compliance Inspector Supervisor). Quality assurance procedures are defined in 40 CFR, Part 60, Appendix F. This plan shall be submitted within 180 days of the CEMS installation. A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor data accuracy, precision, representativeness, and availability.

B. The submitted QA/QC plan for each CEMS shall not be considered as accepted until the facility receives a written notification of acceptance from the Department.

C. Facilities responsible for one, or more, CEMS used for compliance monitoring shall meet these minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, or to continue such programs where they already exist. Each QA/QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities: [15]

1. Calibration of CEMS
   a. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked and the time required to perform these checks and return to stable operation)
2. Calibration drift determination and adjustment of CEMS
   a. Out-of-control period determination
   b. Steps of corrective action
3. Preventive maintenance of CEMS
   a. CEMS information
      1) Manufacture
      2) Model number
      3) Serial number
   b. Scheduled activities (check list)
   c. Spare part inventory
4. Data recording, calculations, and reporting
5. Accuracy audit procedures including sampling and analysis methods
6. Program of corrective action for malfunctioning CEMS

D. As part of the QA/QC plan for each CEMS, a Relative Accuracy Test Audit (RATA), shall be conducted at least once every four calendar quarters. A Relative Accuracy Audit (RAA), or a Cylinder Gas Audit (CGA), may be conducted in the other three quarters but in no more than three quarters in succession. The RATA, RAA, and CGA test procedures shall be included in the QA/QC plan submitted for approval. Additionally, the justification and methodology for any alternate tests shall be submitted with the QA/QC plan. [16]

E. If either the zero or span drift results exceed two times the applicable drift specification in 40 CFR, Part 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibration drift check, the CEMS is out-of-control. [17]

1. Out-of-control begins with the hour corresponding to the completion of a daily calibration error, linearity check, or quality assurance audit that indicates that the instrument is not measuring and recording within the applicable performance specifications.

2. Out-of-control ends with the hour corresponding to the completion of an additional calibration error, linearity check, or quality assurance audit following corrective action that demonstrates that the instrument is measuring and recording within the applicable performance specifications.

3. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart.

F. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back-up CEM is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEM shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance with standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged to sample, analyze and record the emission source pollutant until repairs are made and the primary unit is placed back in service. Records must be maintained on site when the back-up CEMS is placed in service, these records shall include at a minium the reason the primary CEMS is out of service, the date and time the primary CEMS was out of service and the date and time the primary CEMS was placed back in service.

1 40 CFR, Part 60, Appendix F 2.1
2 40 CFR, Part 60, Appendix F 2.5
3 40 CFR, Part 60, Appendix F 4.3.1 & 5.2.1
4 40 CFR 60.13(b)
5 40 CFR 60.3(j)
6 40 CFR 60.13(d)(1), Part 60, Appendix F 4
7 40 CFR 60.13(e)(2)
8 40 CFR 60.13(g)
9 40 CFR 60.6(a)
10 40 CFR 60.7(5)
11 40 CFR 60.7(c)(2)
12 40 CFR 60.7(c)
13 40 CFR 60.7(d)
14 40 CFR 60.7(e)
15 40 CFR, Part 60, Appendix F 3
16 40 CFR, Part 60, Appendix F 5
17 40 CFR, Part 60, Appendix F 4.3
18 USEPA Guidance on the "Timely and Appropriate Enforcement Response to Significant Air Pollution Violators" (2/7/92)

CERTIFICATE OF SERVICE

I, Keith A. Michaels, hereby certify that a copy of this permit has been mailed by first class mail to Ash Grove Cement Company, P.O. Box 130, Foreman, Arkansas 71836 on this 11th day of February, 1998.

Keith A. Michaels, Chief, Air Division