

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0075-AOP-R15 AFIN: 41-00001

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Ash Grove Cement Company
4343 Highway 108
Foreman, Arkansas 71836

3. PERMIT WRITER:

Joseph Hurt

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Cement Manufacturing
NAICS Code: 327310

5. SUBMITTALS:

8/20/2013

6. REVIEWER'S NOTES:

Ash Grove Cement Company (AFIN: 41-00001) operates a portland cement plant located at 4457 Hwy 108 West in Foreman, Arkansas 71836. With this permitting action, Ash Grove is:

1. Incorporating the recently revised applicable requirements of 40 CFR Part 63, Subpart LLL;
2. Incorporating 40 CFR Part 63, Subpart G and Subpart XX applicable requirements;
3. Removing decommissioned sources;
4. Incorporating the updated Fugitive Dust Plan
5. Correcting particulate matter emission limits for several sources;
6. Permitting a clinker transfer chute; and
7. Incorporating the language of the Permit Appeal Resolution (PAR) for condensable particulate matter testing required in Specific Condition 138.

The total permitted emission increases include 28.3 tpy of PM and 3.0 tpy of PM₁₀. 27.4 tpy of permitted PM emission increase is due to typographical errors from the previous permit. These increases do not trigger a PSD review.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The last inspection conducted on April 2, 2013 indicated that the facility was out of compliance. The inspection report states, "After reviewing the pertinent documentation and conducting a physical inspection of the facility, with no violations noted, however due to a pending enforcement action, Ash Grove is noted as out of compliance."

8. PSD APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b) Is the facility categorized as a major source for PSD? Y

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list, or*
- *CO₂e potential to emit ≥ 100,000 tpy and ≥100 tpy/≥250tpy of combined GHGs?*

If yes, explain why this permit modification is not PSD.

9. GHG MAJOR SOURCE (TITLE V):

Indicate one:

- Facility is classified as a major source for GHG and the permit includes this designation
- Facility does not have the physical potential to be a major GHG source
- Facility has restrictions on GHG or throughput rates that limit facility to a minor GHG source. Describe these restrictions: _____

10. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
326.CH26, 403.CHM, 403.CHR, 403.CHU, 431.LS12, 443.CH46, 449.BF1, 449.BF10, 449.BF15, 449.BF20, 449.BF30, 449.BF40, 449.BF50, 449.BF60, 449.BF70, 449.CH30, 449.CH31, 449.CH32, 449.CH33, 449.CH42, 449.HP2, 533.LS10, 534.CH12, 514.BF1, 514.BF2, 514.BF3, 524.BF1, 524.BF2, 611.BF1, 611.BF3, 611.BF4, 611.BF10, 611.BF20, 611.BF30, 611.BF40, 403.BF3, 403.BF4, 403.BF6, 403.BF7, 403.BF8, 612.BF1, 612.BF2, 612.BF3, 612.BF4, 612.BF5, 621.BF1, 621.BF2, 621.BF3, 621.BF5, 621.BF6(E), 621.BF7(W), 621.BF8, 621.BF9, 631.BF10, 631.BF15, 631.BF20, 631.BF25, 631.BF30, 513.BF1, 521.BF1, 521.BF2, 523.BF2, 531.BF10, 531.BF20, 533.BF10, 533.BF20, 534.BF10, 534.BF20, 535.BF10, 535.BF20, 44C.BF10, 502.BF1, 502.BF2, 502.BF3, 327.BF10, 327.BF20, 327.BF30, 442.BF10, 442.BF20, 443.BF20, M9, 326.BF10, 326.BF20, 326.BF30, 329.BF10, 329.BF20, 611.UL10	PM ₁₀	NESHAP Subpart LLL
41A.BF10, 41A.BF20, 41A.T2, 41A.T10, 44A.T10, 44A.BF10, 44B.BF10	PM ₁₀	NSPS Subpart Y

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
41A.BF10, 41A.BF20, 44A.BF10, 213.BF10, 213.BF20, 213.T2, 213.T3, 221.BF10, 323.BF10, 325.BF10, 325.BF20, 325.BF30, 41A.T1, 111.T10, 111.T12, 213.T1, 221.CH01, 221.RMB1, 221.T1, 321.CH01, 323.T1, 41A.BF10, 41A.BF20, 44A.BF10	PM ₁₀	NSPS Subpart OOO
41F.FT10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA	VOC	NSPS Subpart Kb
41F.BF10, 41F.FT10, 41F.TK10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.TX1	Benzene Waste Operations	40 CFR Part 61, Subpart FF
41F.BF10, 41F.FT10, 41F.TK10, 40F.FT3, 40F.FT4, 40F.FT5, 40F.FT6, 40F.FT7, 40F.FT8, 40F.FT9, 40F.FTA, 40F.TX1, RCC	Benzene Waste Operations	40 CFR 63, Subpart DD
443.BF10, 443.BF30, 443.SK10	HAPs and THC	NESHAP Subpart EEE
710-EG10	Varies	NSPS Subpart IIII
Facility	Varies	NESHAP Subpart G
		NESHAP Subpart XX

The facility is not subject to 40 CFR Part 63, Subpart JJJ – National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. NAAQS EVALUATIONS AND NON-CRITERIA POLLUTANTS:

a) NAAQS:

Pursuant to Act 1302 of the Regular Session of the 89th General Assembly of the State of Arkansas, no dispersion modeling was performed by ADEQ because it was not

voluntarily proposed and agreed to by the facility. No other information was submitted by the applicant. Criteria pollutants were not evaluated for impacts on the NAAQS.

b) Non-Criteria Pollutants:

This facility is subject to 40 CFR 63, Subpart EEE. This subpart requires a risk assessment to be performed and no threat to the public health or safety was found.

13. CALCULATIONS:

SN	Emission Factor Source	Emission Factor	Control Equipment	Control Equipment Efficiency	Comments
Kiln	Testing BACT	Various VOC: 44.5 lb/hr	Baghouse	99%	
Fabric filters	Various	0.01 gr/dscf or 0.005 gr/dscf		95%	
Combustion sources	AP-42	Various			Based on equation in AP-42
Crushers	AP-42	Various			based on equation in AP-42
Roads	AP-42	Various			based on equation in AP-42
Storage piles	AP-42	Various			based on equation in AP-42

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
443.SK10	All	See NESHAP EEE		
443.SK10	Methane	18 with 25A or 25A with Methane cutter	Quarterly	To verify the methane portion of emission from 443.SK10
443.SK10	PM (Condensables)	202	Once every five years	§26.703(A)
HR07 - HR09, HR15, HR17 -	Silt content of roads to verify	Appendix C.1 and C.2	Within 60 days of issuance of Permit 0075-	§26.703(A)

SN	Pollutants	Test Method	Test Interval	Justification
HR22, 111.R1A-F	PM ₁₀	of AP-42	AOP-R14, and quarterly thereafter until each road segment has been tested twice.	
HR01 - HR06, HR12 - HR14, HR16, HR23	Road surface silt loading to verify PM ₁₀			

15. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
443.SK10	CO	CEM	Continuously	Y
	VOC	THC Analyzer (CEM)	Continuously	Y
40F.TX1 & 41F.TX10	Combustion chamber temperature	Continuous temperature recorder	Continuously	N

16. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
443.SK10 & Plantwide	Clinker production	5,300 tons/day	Daily	Y
443.SK10	Operating Parameter Limits	See Appendix N	Daily	Y
403.P1	Pile area	20 acres	Annually	Y
449.P1	Pile area	4 acres	Annually	Y
41.AP1, 41.AP2, & 41.AP3	Pile area	0.92 acres (total)	Annually	Y
41A.P5	Pile area	1.03 acres	Annually	Y
41A.P6	Pile area	0.52 acres	Annually	Y
221.RMB1	Pile area	4.93 acres	Annually	Y
710.EG10	Operating Hours	500 hours per consecutive 12-	As Necessary	Y

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SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
		month period		
40F.TX1	Combustion chamber temperature	$\geq 1500^{\circ}\text{F}$	Continuously	N
	Breakthrough indicators	Log of observations	Good engineering judgment	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
443.BF10, 443.BF30, & 443.SK10	20	NESHAP Subpart EEE	Weekly observation

SN	Opacity	Justification for limit	Compliance Mechanism
326.BF10, 326.BF20, 326.BF30, 326.CH26, 327.BF10, 327.BF20, 329.BF10, 329.BF20, 403.CHM, 403.CHR, 403.CHU, 431.LS12, 442.BF20, 443.BF20, 443.CH46, 449.CH30, 449.CH31, 449.CH32, 449.CH33, 449.CH42, 449.HP2, 502.BF2, 502.BF3, 533.LS10, 534.CH12, M9, 514.BF1, 514.BF2, 514.BF3, 524.BF1, 524.BF2, 611.BF1, 611.BF3, 611.BF4, 611.BF10, 611.BF20, 611.BF30, 611.BF40, 611.UL10, 403.BF3, 403.BF4, 403.BF6, 403.BF7, 403.BF8, 612.BF1, 612.BF2, 612.BF3, 612.BF4, 612.BF5, 621.BF1, 621.BF2, 621.BF3, 621.BF5, 621.BF6(E), 621.BF7(W), 621.BF8, 621.BF9, 631.BF10, 631.BF15, 631.BF20, 631.BF25, 631.BF30, 449.BF1, 449.BF10, 449.BF15, 449.BF20, 449.BF30, 449.BF40, 449.BF50, 449.BF60, 449.BF70, 513.BF1, 521.BF1, 521.BF2, 523.BF2, 531.BF10, 531.BF20, 533.BF10, 533.BF20, 534.BF10, 534.BF20, 535.BF10, 535.BF20, 44C.BF10, 502.BF1, 502.BF2, 327.BF30, 442.BF10	10	NESHAP Subpart LLL	Weekly observation
40F.TX1	10	Department Guidance	Natural gas only
41A.BF10, 41A.BF20, 41A.T2, 41A.T10, 44A.T10, 44A.BF10, 44B.BF10	10	NSPS Subpart Y	Weekly observation

SN	Opacity	Justification for limit	Compliance Mechanism
41A.BF10, 41A.BF20, 44A.BF10, 213.BF10, 213.BF20, 213.T2, 213.T3, 221.BF10, 323.BF10, 325.BF10, 325.BF20, 325.BF30, 41A.T1, 111.T10, 111.T12, 213.T1, 221.CH01, 221.RMB1, 221.T1, 321.CH01, 323.T1	Various	NSPS Subpart OOO	Weekly observation
403.P1, 449.P1, 41A.P1, 41A.P2, 41A.P3, 41A.P5, 41A.P6, 211.BF1, 213.P1, 311.BF1, 311.CH10, 311.CH11, 311, CH15, 311.CH16, 403.T1, 403.T2, 449.T1, 449.T4, 502.T1, 502.T2	20	Department Guidance	Weekly observation
311.CH1, 311.CHC	40	Department Guidance	Weekly observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

19. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
250 gal grinding aid tanks	A-2			<1.0			<1.0	<1.0
Less than 15 gallon DOT Containers	A-2			<1.0			<1.0	<1.0
10,000 gal diesel UST x 3	A-3	See A-3 total.						
10,000 gal Masonry air entraining agent tank	A-3							
1,000 gal used oil UST	A-3							
550 gal motor oil and/or hydraulic fluid UST x 4	A-3							
350 gal used oil tanks x 2	A-3							
Total	A-3			<10			<5	<5
Piles associated with clean-up	A-13	See A-13 total.						
10,000 gallon oil tank	A-13							
12,000 gallon oil tank	A-13							
10,000 gallon unleaded UST	A-13							
30,000 gallon grinding aid tank	A-13							
Total	A-13	<5		<5			<1	<1

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0075-AOP-R14

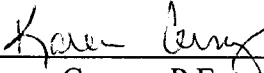
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21. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.



Karen Cerney, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 08-26-13

Facility Name: Ash Grove Cement Company
 Permit Number: 0075-AOP-R15
 AFIN: 41-00001

\$/ton factor	23.42	Annual Chargeable Emissions (tpy)	6208.2
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	28.3
Initial Title V Permit Fee Chargeable Emissions (tpy)	

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensable PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		296.7	325	28.3	28.3	325
PM ₁₀		257.1	260.1	3		
SO ₂		2699.6	2699.6	0	0	2699.6
VOC		211.2	211.2	0	0	211.2
CO		1717.2	1717.2	0		
NO _x		2972.4	2972.4	0	0	2972.4
1. (The following HAPs are bubbled together)	<input type="checkbox"/>	0	0	0		
1,1,1-Trichloroethane*	<input type="checkbox"/>	195.96	195.96	0		
1,1,2,2-Tetrachloroethane*	<input type="checkbox"/>	0	0	0		
1,1,2-Trichloroethane*	<input type="checkbox"/>	0	0	0		
1,1-Dichloroethane*	<input type="checkbox"/>	0	0	0		
1,2-Dichloroethane*	<input type="checkbox"/>	0	0	0		
1,2-Dichloropropane*	<input type="checkbox"/>	0	0	0		
Acrylonitrile*	<input type="checkbox"/>	0	0	0		
Allyl Chloride*	<input type="checkbox"/>	0	0	0		
Benzene*	<input type="checkbox"/>	0	0	0		
Bromoform*	<input type="checkbox"/>	0	0	0		
Bromomethane*	<input type="checkbox"/>	0	0	0		
Carbon disulfide*	<input type="checkbox"/>	0	0	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Carbon tetrachloride*	<input type="checkbox"/>	0	0	0		
Chlorobenzene*	<input type="checkbox"/>	0	0	0		
Chloroform*	<input type="checkbox"/>	0	0	0		
Chloromethane*	<input type="checkbox"/>	0	0	0		
Cumene*	<input type="checkbox"/>	0	0	0		
Diethanolamine*	<input type="checkbox"/>	0	0	0		
Ethyl Acrylate*	<input type="checkbox"/>	0	0	0		
Ethylbenzene*	<input type="checkbox"/>	0	0	0		
Ethylene Glycol*	<input type="checkbox"/>	0	0	0		
Iodomethane*	<input type="checkbox"/>	0	0	0		
Methyl Methacrylate*	<input type="checkbox"/>	0	0	0		
Methyl tert-butyl ether*	<input type="checkbox"/>	0	0	0		
Methylene chloride*	<input type="checkbox"/>	0	0	0		
n-Hexane*	<input type="checkbox"/>	0	0	0		
Styrene*	<input type="checkbox"/>	0	0	0		
Toluene*	<input type="checkbox"/>	0	0	0		
trans-1,3-Dichloropropene*	<input type="checkbox"/>	0	0	0		
Vinyl acetate*	<input type="checkbox"/>	0	0	0		
Vinyl Bromide*	<input type="checkbox"/>	0	0	0		
Vinyl chloride*	<input type="checkbox"/>	0	0	0		
Xylene*	<input type="checkbox"/>	0	0	0		
1,2,4-Trichlorobenzene*	<input type="checkbox"/>	0	0	0		
1,4-Dichlorobenzene*	<input type="checkbox"/>	0	0	0		
1,4-Phenylenediamine*	<input type="checkbox"/>	0	0	0		
2,4,5-Trichlorophenol*	<input type="checkbox"/>	0	0	0		
2,4,6-Trichlorophenol*	<input type="checkbox"/>	0	0	0		
2,4-Dinitrophenol*	<input type="checkbox"/>	0	0	0		
2,4-Dinitrotoluene*	<input type="checkbox"/>	0	0	0		
3,3'-Dichlorobenzidine*	<input type="checkbox"/>	0	0	0		
4,4'-Methylenedianiline*	<input type="checkbox"/>	0	0	0		
4-Aminobiphenyl*	<input type="checkbox"/>	0	0	0		
4-Nitrobiphenyl*	<input type="checkbox"/>	0	0	0		
4-Nitrophenol*	<input type="checkbox"/>	0	0	0		
Aniline*	<input type="checkbox"/>	0	0	0		
Benzidine*	<input type="checkbox"/>	0	0	0		
bis(2-Chloroethyl) ether*	<input type="checkbox"/>	0	0	0		
bis(2-Ethylhexyl) phthalate*	<input type="checkbox"/>	0	0	0		
Dimethyl phthalate*	<input type="checkbox"/>	0	0	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Hexachlorobenzene*	<input type="checkbox"/>	0	0	0		
Hexachlorobutadiene*	<input type="checkbox"/>	0	0	0		
Hexachlorocyclopentadiene*	<input type="checkbox"/>	0	0	0		
Hexachloroethane*	<input type="checkbox"/>	0	0	0		
Hydroquinone*	<input type="checkbox"/>	0	0	0		
Isophorone*	<input type="checkbox"/>	0	0	0		
Napthalene*	<input type="checkbox"/>	0	0	0		
Nitrobenzene*	<input type="checkbox"/>	0	0	0		
o-Anisidine*	<input type="checkbox"/>	0	0	0		
o-Toluidine*	<input type="checkbox"/>	0	0	0		
Pentachloronitrobenzene*	<input type="checkbox"/>	0	0	0		
Pentachlorophenol*	<input type="checkbox"/>	0	0	0		
Phenol*	<input type="checkbox"/>	0	0	0		
-----	<input type="checkbox"/>	0	0	0		
Dioxin/Furan*	<input type="checkbox"/>	1.30E-06	1.30E-06	0		
-----	<input type="checkbox"/>	0	0	0		
(The following emissions are bubbled together)	<input type="checkbox"/>	0	0	0		
HCl	<input type="checkbox"/>	416.6	416.6	0		
Chlorine	<input type="checkbox"/>	0	0	0		
-----	<input type="checkbox"/>	0	0	0		
Arsenic*	<input type="checkbox"/>	0.2	0.2	0		
Beryllium*	<input type="checkbox"/>	0.2	0.2	0		
Cadmium*	<input type="checkbox"/>	0.7	0.7	0		
Chromium*	<input type="checkbox"/>	0.2	0.2	0		
Lead*	<input type="checkbox"/>	0.7	0.7	0		
Mercury*	<input type="checkbox"/>	0.4	0.4	0		
-----	<input type="checkbox"/>	0	0	0		
(The following emissions are bubbled together)	<input type="checkbox"/>	0	0	0		
Antimony*	<input type="checkbox"/>	119.3	119.3	0		
Cobalt*	<input type="checkbox"/>	0	0	0		
Manganese*	<input type="checkbox"/>	0	0	0		
Nickel*	<input type="checkbox"/>	0	0	0		
Selenium*	<input type="checkbox"/>	0	0	0		