STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0045-AOP-R11 AFIN: 32-00014

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Arkansas Lime Company
600 Limedale Road
Batesville, Arkansas 72503

3. PERMIT WRITER:

Derrick Brown

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Lime Manufacturing
NAICS Code: 327410

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
5/19/2023	Minor Modification	Inclusion of HCl testing for sources SN-11Q, SN-24Q, and SN-30Q.

6. REVIEWER'S NOTES:

Arkansas Lime Company owns and operates a limestone quarry and lime manufacturing plant near Batesville, Independence County, Arkansas. This modification updates HCl emissions for Rotary Lime Kilns SN-11Q, SN-24Q, and SN-30Q. This modification reduces permitted emissions of HCl based on testing conducted March 28 and 29th, 2023. Finally, this reduction results in the reclassification of this facility as an area source of HAP under section 1123 of the Clean Air Act and the removal of permitting requirements of 40 C.F.R. § 63, Subpart AAAAA. This modification decreases permitted HCl emissions by 85.71 tons per year.

7. COMPLIANCE STATUS:

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

The facility's most recent inspection on May 20, 2022 stated there were no areas of concern.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N/A

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*

If yes for 8(b), explain why this permit modification is not PSD.

Arkansas Lime is requesting a reduction in allowable HCl emissions wit this modification, therefore, a PSD analysis is not required.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
01Q, 02Q, 03Q, 07Q, 09Q, 10Q, 27Q, 31Q, 35Q, 36Q, 46Q, 47Q, 01P, 19P, 30P, 33P, 34P, and 36P	PM and PM_{10}	40 CFR 60, Subpart OOO New Source Performance Standards for Non Metallic Mineral Processing Plants
11Q, 24Q, and 30Q	PM and PM_{10}	40 CFR 60, Subpart HH New Source Performance Standards for Lime Manufacturing Plants
21Q, 28Q, and Coal systems	PM and PM_{10}	40 CFR 60, Subpart Y New Source Performance Standards for Coal Preparation Plants
SN-43Q	N/A	40 CFR Part 63 subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
11Q, 24Q, 25Q, 26Q, 27Q, 28Q, 30Q through 39Q	PM, PM_{10}, SO_2, CO, NO_x	40 CFR 52 Prevention of Significant Deterioration
11Q, 13Q, 15Q, 24Q, 25Q, 32Q, 12P, 18P, and 19P	PM and PM_{10}	40 CFR 64 Compliance Assurance Monitoring

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
None				

11. PERMIT SHIELD – TITLE V PERMITS ONLY: (Minor Modification)

Did the facility request a permit shield in this application? N
(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
11Q, 24Q, 30Q	SO_2, PM/PM_{10}	Daily limits and rolling 30-day limits on sulfur content in coal burned; COMS
13Q, 15Q, 25Q, 32Q, 12P, 18P, 19P	PM/PM_{10}	Daily observation for visible emissions

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Division of Environmental Quality has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Hydrogen Chloride	2.98	0.3282	2.57	N
Acrolein	0.229	2.52E-02	2.27E-04	Y
Arsenic	0.041	4.51E-03	3.05E-06	Y
Beryllium	0.5E-04	5.5E-06	1.83E-07	Y
Cadmium	0.01	1.1E-03	1.68E-05	Y
Chromium	0.01	1.1E-03	2.14E-05	Y
Cobalt	0.02	2.2E-03	1.28E-06	Y
Manganese	0.02	2.2E-03	5.8E-06	Y
Mercury	0.025	2.75E-03	3.97E-06	Y
Nickel	0.2	0.022	3.2E-05	Y
Selenium	0.2	0.022	3.66E-07	Y

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the

property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Division of Environmental Quality to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
HCl	29.8	7.51*	Y

*Modeled at 24 lbs/hr per R10 Statement of Basis. Current permitted emissions are 2.57 tons per year.

c) H_2S Modeling: N/A

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equip. Eff.	Comments
01Q	AP-42, Section 11.19.2	0.00120 lb PM/ton 0.00054 lb PM_{10}/ton	None	n/a	384 tph. 1,251,200 tpy.
02Qb	AP-42, Section 11.19.2	0.00120 lb PM/ton 0.00054 lb PM_{10}/ton	None	n/a	402 tph. 1,746,468 tpy.
03Qa	AP-42, Section 11.19.2	0.00220 lb PM/ton 0.00074 lb PM_{10}/ton	None	n/a	852 tph. 3,701,467 tpy.
03Qb					450 tph. 1,955,000 tpy.
03Qc					452 tph. 1,500,040 tpy.
04Q	EPA's Control of Open Fugitive Dust Sources, 9/1988	See document	None	n/a	
05Q	AP-42, Section 11.19.2-2	0.00030 lb PM/ton 0.00010 lb PM_{10}/ton	None	n/a	240 tph. 640,000 tpy.
06Q	AP-42 Emission factor equation for unpaved roads, Table 13.2.2-1, Figure 13.2.2-1 and Figure 13.2.2-2	k, a, b PM: 4.9, 0.7, 0.45 PM_{10}: 1.5, 0.9, 0.45 s = 8.3% silt p = 105 days/yr 36t payload + 34t truck = 70 ton loaded truck	Road watering	75%	0.9 mi/rd trip * (1 rd trip / 36 t payload) *1,955,000 tons rock/yr = 48,875 VMT/yr. 4380 nominal op hr/yr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equip. Eff.	Comments
		(34+70)/2 = 52 ton mean W = 52t avg truck			= ~1.99 max VMT/hr.
07Q	AP-42, Section 11.19.2-2 and AP-42 Section 13.2.4	Numerous Factors	Enclosure on D06 Kiln Feed Belt	85% PM on D06	
09Q	AP-42, Section 11.19.2	0.00220 lb PM/ton 0.00074 lb PM_{10}/ton	None	n/a	300 tph. 822,000 tpy.
10Q	AP-42, Section 11.19.2	0.00220 lb PM/ton 0.00074 lb PM_{10}/ton	None	n/a	250 tph. 1,368,750 tpy.
11Q, 24Q	PM/ PM_{10} MACT PM_{10} Condensables AP-42, Table 11.17-2 SO_2 Mass balance VOC AP-42 CO BACT levels NO_X BACT levels	0.12 lb/tsf 0.38 lb/ton 3% by weight (long term) and 4% by weight (short term) 0.6 lb/ton 3.0 lb/ton produced 3.5 lb/ton produced	Dust Coll. Dry Scrub	99% PM 95% SO_2	
12Qa	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	2000 dscfm
12Qb	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1500 dscfm
13Q	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	3000 dscfm
14Q	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1500 dscfm
15Q	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	14000 dscfm
16Q	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1400 dscfm

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equip. Eff.	Comments
17Q	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1400 dscfm
18Q	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1400 dscfm
19Q	AP-42 Section 13.2.4	0.00136 lb PM/ton 0.000642 lb PM_{10}/ton	None	n/a	
20Qa/b	EPA's Control of Open Fugitive Dust Sources	See Document	None	n/a	
21Q	AP-42 Section 13.2.4	0.00136 lb PM/ton 0.000642 lb PM_{10}/ton	None	n/a	
22Q	AP-42, Section 11.19.2-2	0.00030 lb PM/ton 0.0001 lb PM_{10}/ton	None	n/a	
25Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	3000 dscfm
26Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	2000 dscfm
27Q	AP-42 Section 13.2.4	0.00309 lb PM/ton 0.00146 lb PM_{10}/ton	Enclosure	85% PM	
28Q	AP-42 Section 13.2.4	0.00136 lb PM/ton 0.000641 lb PM_{10}/ton	Enclosure	85% PM	
29Q	AP-42 Emission factor equation for paved roads, AP-42 Section 13.2.1	Factors based on usage and location	None	n/a	
30Q	PM/ PM_{10} MACT PM_{10} Condensables AP-42, Table 11.17-2	0.10 lb/tsf 0.38 lb/ton lime	Dust Coll.	99% PM	1 ton stone feed (tsf) = 0.5 ton lime output. 625 t lime output/ day = 1250 tsf/day. 750 t lime/ output/ day = 1500 tsf/day.
30Q	SO_2 Mass balance	3% by weight (long term) and 4% by weight (short term)	Dry Scrub	95% SO_2	For hourly emissions: 750 t lime/ day per kiln, 24 hr day.

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equip. Eff.	Comments
					For annual emissions: 228,125 t/yr per kiln, 365 day/yr = 625 t/day.
30Q	VOC AP-42, table 1.1-19 CO BACT levels NO_X BACT levels	0.6 lb/ton 3.0 lb/ton produced 3.5 lb/ton produced			
30Q	SN-11Q 2003 HCl testing: 3.12 lb /hr (8.00 lb/hr used, to be conservative)				2003 testing was at 26 tph lime (= 624 tpd).
31Q	AP-42, Section 11.19.2-2 and AP-42 Section 13.2.4	0.000140 lb PM/ton 0.000046 lb PM_{10}/ton and 0.00309 lb PM/ton 0.00146 lb PM_{10}/ton	None	n/a	
32Q	BACT/ Grain Loading	0.010 gr/dscf	Dust Coll.	99% PM	3000 dscfm
33Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1000 dscfm
34Q	AP-42 Section 13.2.4	0.00136 lb PM/ton 0.000641 lb PM_{10}/ton	Enclosure	85% PM	
35Q	AP-42, Section 11.19.2-2	0.00309 lb PM/ton 0.00146 lb PM_{10}/ton	Enclosure	85% PM	
36Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	7000 dscfm
37Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	7000 dscfm
38Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1400 dscfm
39Q	BACT/ Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1400 dscfm
40Q	AP-42 Section 13.2.4	0.0776 lb PM/ton 0.00367 lb PM_{10}/ton	None	n/a	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equip. Eff.	Comments
41Q	AP-42 Section 13.2.4	0.0776 lb PM/ton 0.00367 lb PM_{10}/ton	None	n/a	
43Q	Vendor specs, with HAP from AP-42 Table 3.3-2	g/hp-hr 0.04 PM/PM_{10} 0.115 SO_2 0.046 VOC 0.77 CO 3.42 NO_x lb/MMBtu 3.87E-3 total HAP	None	n/a	382 hp. 453.6 g/lb. 19.59 gal/hr * 0.139 MMBtu/gal = 2.72301 MMBtu/hr. 500 hr/yr.
46Q	AP-42, Section 11.19.2 Table 11.19.2-2	lb/ton: Screening 0.0022 PM 0.00074 PM_{10} Conveyor transfer points 1.4E-04 PM 4.6E-05 PM_{10}	Water spray as needed	n/a	500 tph, 8760 op hr/yr.
47Q	AP-42, Section 11.19.2-2	1.4E-04 PM 4.6E-05 PM_{10} 1.3E-05 $PM_{2.5}$	None	n/a	
01P	AP-42, Section 11.19.2-2 and AP-42 Section 13.2.4	Numerous Factors	Partial Enclosure for B	85% PM for B	
12P	Grain Loading and Natural Gas factors	0.020 gr/dscf 100 lb/MMscf NO_X 84 lb/MMscf CO 5.5 lb/MMscf VOC 0.6 lb/MMscf SO_2	Dust Coll.	99% PM	10730 dscfm. 4 MMBtu/hr. 1020 Btu/scf. 8760 hr/yr.
13P	Grain Loading	0.020 gr/dscf	Dust Coll.	99% PM	1200 dscfm
14P	AP-42, Table 11.17-4	0.0915 lb PM/ton 0.0305 lb PM_{10}/ton	None	n/a	
18P	Grain Loading and Natural Gas factors	0.020 gr/dscf 100 lb/MMscf NO_X	Dust Coll.	99% PM	15000 dscfm 6.3

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equip.	Control Equip. Eff.	Comments
		84 lb/MMscf CO 5.5 lb/MMscf VOC 0.6 lb/MMscf SO_2			MMBtu/hr. 1020 Btu/scf. 8760 hr/yr.
19P	Grain Loading and Natural Gas factors	0.020 gr/dscf 100 lb/MMscf NO_X 84 lb/MMscf CO 5.5 lb/MMscf VOC 0.6 lb/MMscf SO_2	Dust Coll.	99% PM	10100 dscfm 5.25 MMBtu/hr. 1020 Btu/scf. 8760 hr/yr.
20P	AP-42, Section 11.19.2-2	0.04500 lb PM/ton 0.01080 lb PM_{10}/ton	None	n/a	30 tph. 262,800 tpy.
24P	AP-42, Table 11.17-4	0.0915 lb PM/ton 0.0305 lb PM_{10}/ton	None	n/a	
26P	AP-42 Emission factor equation for paved roads, Section 13.2.1	Factors based on usage and location	None	n/a	
29P	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1200 dscfm
30P	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	2500 dscfm
33P	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1200 dscfm
34P	Grain Loading	0.015 gr/dscf	Dust Coll.	99% PM	1200 dscfm
35P	AP-42, Table 11.17-4	0.0225 lb PM/ton 0.0750 lb PM_{10}/ton	None	n/a	
36P	NSPS OOO/ Grain Loading	0.022 gr/dscf	Dust Coll.	99% PM	900 dscfm. Instl 2005. NSPS OOO, Table 2.

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
11Q	PM NO_X	5 7E	Every 5 Years	Dept. Guidance

SN	Pollutants	Test Method	Test Interval	Justification
	CO stone feed rate monitor	10 Mass throughput test		
24Q	PM NO_X CO stone feed rate monitor	5 7E 10 Mass throughput test	Every 5 Years	PSD
30Q	PM NO_X CO stone feed rate monitor	5 7E 10 Mass throughput test	Every 5 Years	PSD
46Q	Opacity	9	Initial test	NSPS Subpart OOO

17. 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)
11Q	Opacity	COM	Continuous	Only periods of excess: See Plantwide Condition #10
11Q	$\%O_2$	CEM	Continuous	N
24Q	Opacity	COM	Continuous	Only periods of excess: See PWC #10
24Q	$\%O_2$	CEM	Continuous	N
30Q	Opacity	COM	Continuous	Only periods of excess: See PWC #10
30Q	$\%O_2$	CEM	Continuous	N

18. 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)
01Q	Tons of Limestone	1,251,200 per 12 month period	Monthly	N
02Qb	Tons of Limestone	1,746,468 per 12 month period	Monthly	N
03Qa	Tons of Limestone	3,701,467 per 12 month period	Monthly	N
03Qb	Tons of Limestone	1,955,000 per 12 month period	Monthly	N
03Qc	Tons of Limestone	1,500,040 per 12 month period	Monthly	N
05Q	Number of Railcars	16,000 per 12 month period	Monthly	N
09Q	Tons of Limestone	822,000 per 12 month period	Monthly	N
10Q	Tons of Limestone	1,368,750 per 12 month period	Monthly	N
11Q	Tons of Coal/Coke	47,254 per 12 month period	Daily	N
11Q	Tons of Lime	687.0 per day, 228,125 per 12 month period	Daily	Y (Annual Total)
11Q	Ash Mineral Content	Maximum allowable to keep HAPs below Deminimis levels	Each New Mine	N
11Q	Particulate Emission Rate	0.12 lb/ton of Stone Fed	Each Run	N
11Q	Sulfur Content of Fuel	4% by weight daily 3% by weight 30 day average	Each Shipment	N
11Q	NO_X emissions	3.5 lb/ton of Lime	Continuous $\%O_2$	N
11Q	Performance Test Data	See Plantwide Conditions #10 and #11 and	5 years	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
		40 C.F.R. § 60.344		
11Q	Inspection of Filter	N/A	Annually	N
11Q	Calibration of O_2 monitor	N/A	4 weeks and during cell replacement	N
19Q	Tons of Coal/Coke	141,759 per 12 month period	Monthly	N
22Q	Tons of Limestone	200,000 per 12 month period	Monthly	N
24Q	Tons of Coal/Coke	47,253 per 12 month period	Daily	N
24Q	Tons of Limestone	687.0 per day 228,125 per 12 month period	Daily	Y (Annual total)
24Q	Ash Mineral Content	Maximum allowable to keep HAPs below Deminimis levels	Each New Mine	N
24Q	Particulate Emission Rate	0.10 lb/ton of Stone Fed	Each Run	N
24Q	Sulfur Content of Fuel	4% by weight daily 3% by weight 30 day average	Each Shipment	N
24Q	NO_X emissions	3.5 lb/ton of Lime	Continuous $\%O_2$	N
24Q	Performance Test Data	See Plantwide Conditions #10 and #11 and 40 C.F.R. § 60.344	5 years	Y
24Q	Inspection of Filter	N/A	Annually	N
24Q	Calibration of O_2 monitor	N/A	4 weeks and during cell replacement	N
25Q	Cause of any visible emission exceedance and	5%	Daily	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	Corrective Action			
30Q	Tons of Coal/Coke	47,253 per 12 month period	Daily	N
30Q	Tons of Limestone	750.0 per day 228,125 per 12 month period	Daily	Y (Annual total)
30Q	Ash Mineral Content	Maximum allowable to keep HAPs below Deminimis levels	Each New Mine	N
30Q	Particulate Emission Rate after 1/5/07	0.10 lb/ton of Stone Fed	Each Run	N
30Q	Sulfur Content of Fuel	4% by weight daily 3% by weight 30 day average	Each Shipment	N
30Q	NO_X emissions	3.5 lb/ton of Lime	Continuous $\%O_2$	N
30Q	Performance Test Data	See Plantwide Conditions #10 and #11 and 40 C.F.R. § 60.344	5 years	Y
30Q	Inspection of Filter	N/A	Annually	N
30Q	Calibration of O_2 monitor	N/A	4 weeks and during cell replacement	N
31Q	Tons of Limestone	1,100,000 per 12 month period	Monthly	N
32Q	Particulate Emission Rate	0.010 gr/dscf	Annual	N
33Q	Particulate Emission Rate	0.015 gr/dscf	Annual	N
35Q	Tons of Limestone	450,000 per 12 month period	Monthly	N
36Q	Particulate Emission Rate	0.015 gr/dscf	Annual	N
37Q	Particulate Emission Rate	0.015 gr/dscf	Annual	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
31Q	Tons of Limestone	1,100,000 per 12 month period	Monthly	N
32Q	Particulate Emission Rate	0.010 gr/dscf	Annual	N
33Q	Particulate Emission Rate	0.015 gr/dscf	Annual	N
35Q	Tons of Limestone	450,000 per 12 month period	Monthly	N
36Q	Particulate Emission Rate	0.015 gr/dscf	Annual	N
37Q	Particulate Emission Rate	0.015 gr/dscf	Annual	N
01P	Tons of Limestone	432,000 per 12 month period	Monthly	N
14P	Tons of Bagged Hydrated Lime	35,040 per 12 month period	Monthly	N
20P	Tons of Pulverized Limestone	262,800 per 12 month period	Monthly	N
24P	Tons of Pulverized Limestone	35,040 per 12 month period	Monthly	N

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01Q	15%	NSPS OOO	Weekly Observations
02Qb	12%	NSPS OOO	Weekly Observations
03Qa	10%	NSPS OOO	Weekly Observations
03Qb	7%	NSPS OOO	Weekly Observations
03Qc	7%	NSPS OOO	Weekly Observations
05Q	20%	Dept. Guidance	Daily Observations
07Q	7%	NSPS OOO MACT AAAAA	Weekly Observations
09Q	10%	NSPS OOO	Weekly Observations
10Q	10%	NSPS OOO	Weekly Observations
11Q	15%	NSPS HH MACT AAAAA	COM
12Q(a&b)	5%	Dept. Guidance	Weekly Observations
13Q	5%	CAM	Daily Observations
14Q	5%	Dept. Guidance	Weekly Observations
15Q	5%	CAM	Daily Observations

SN	Opacity	Justification for limit	Compliance Mechanism
16Q	5%	Dept. Guidance	Weekly Observations
17Q	5%	Dept. Guidance	Weekly Observations
18Q	5%	Dept. Guidance	Weekly Observations
19Q	20%	Dept. Guidance	Weekly Observations
20Q	20%	Dept. Guidance	Weekly Observations
21Q	20%	Dept. Guidance	Weekly Observations
22Q	20%	Dept. Guidance	Weekly Observations
24Q	15%	NSPS HH MACT AAAAA	COM
25Q	5%	CAM	Daily Observations
26Q	5%	Dept. Guidance	Weekly Observations
27Q	10%	MACT AAAAA	Weekly Observations
28Q	20%	Dept. Guidance	Weekly Observations
30Q	15%	NSPSHH MACT AAAAA	COM
31Q	20%	NSPS OOO	Weekly Observations
32Q	5%	CAM	Daily Observations
33Q	5%	Dept. Guidance	Weekly Observations
34Q	20%	Dept. Guidance	Weekly Observations
35Q	10%	MACT AAAAA	Weekly Observations
36Q	5%	Dept. Guidance	Weekly Observations
37Q	5%	Dept. Guidance	Weekly Observations
38Q	5%	Dept. Guidance	Weekly Observations
39Q	5%	Dept. Guidance	Weekly Observations
43Q	20%	Dept. Guidance	Daily when operating
46Q	7%	NSPS OOO	Weekly Observations
47Qa	7%	NSPS OOO	Weekly Observations
47Qb	7%	NSPS OOO	Weekly Observations
01P	10%	NSPS OOO	Weekly Observations
12P	5%	CAM	Daily
13P	5%	Dept. Guidance	Weekly Observations
14P	5%	Dept. Guidance	Weekly Observations
18P	5%	CAM	Daily
19P	5%	CAM	Daily
20P	20%	Dept. Guidance	Weekly Observations
24P	5%	Dept. Guidance	Weekly Observations
29P	5%	Dept. Guidance	Weekly Observations
30P	7%	NSPS OOO	Weekly Observations
33P	10%	NSPS OOO	Weekly Observations
34P	10%	NSPS OOO	Weekly Observations
35P	20%	Dept. Guidance	Weekly Observations
36P	7%	NSPS OOO	Weekly Observations

20. DELETED CONDITIONS:

Former SC	Justification for removal
Specific Conditions 33, 34, 37, 38, 52 through 63, 115 through 125, 145, 146, 164, 168 through 178, 211, and 212.	This modification permits the facility as an area source (minor source for HAPs), and thus the facility will not be subject to the requirements of 40 C.F.R. § 63, Subpart AAAAA.
Plantwide Conditions 8, 9, 20, 21, and 22.	

21. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Cat	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Lime Cooler Rejects Discharge	A-13	0.06 0.06						
Dribble Chute Discharge	A-13	0.01 0.01						
Railcar Cleanout	A-13	0.821 0.821						
Blast Hole Drilling	A-13	0.08 0.08						
Quarry Blasting	A-13	<5tpy <5tpy						
Portable Conveyor	A-13	0.19 0.09						
Big Bag Filling	A-13	0.4 0.4						
8,000 gallon Diesel Storage Tank	A-3			0.01				
1,000 gallon Diesel Storage Tank	A-3			0.01				
2 X 500 gallon Diesel Storage Tanks	A-3			0.01				
1,000 gallon Gasoline Tank	A-3			0.4				
2 X 1,000 gallon Lube Oil Storage Tanks	A-3			0.1				
Hydrate Rejects Discharge	A-13	0.01						

Source Name	Group A Cat	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Stone Bagging Dust Collector (vents back inside building)	N/A							
Portable Water Pumps Engines and Trommel Screen Engine (non-stationary engines not subject to NSPS or NESHAP rules)	N/A							
Sorting Machines (no emissions)	N/A							

22. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
0045-AOP-R10

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Arkansas Lime Company
Permit Number: 0045-AOP-11
AFIN: 32-00014

$/ton factor	28.14	Annual Chargeable Emissions (tpy)	2020.93
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	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	-85.71
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 condensible 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		328.2	328.2	0	0	328.2
PM_{10}		328.1	328.1	0		
$PM_{2.5}$		0	0	0		
SO_2		426	426	0	0	426
VOC		43.8	43.8	0	0	43.8
CO		1034.1	1034.1	0		
NO_X		1213	1213	0	0	1213
HCl	☑	95.64	9.93	-85.71	-85.71	9.93

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total Other HAPs except HCl	☐	0.16	0.16	0		
Single HAP	☐	0	9.5	9.5		
Total HAP	☐	0	24.5	24.5		
	☐	0	0	0		
	☐	0	0	0		
	☐	0	0	0		
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