

# ADEQ DRAFT OPERATING AIR PERMIT

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

Permit No. : 0045-AOP-R8

IS ISSUED TO:

Arkansas Lime Company  
600 Limedale Road  
Batesville, AR 72503  
Independence County  
AFIN: 32-00014

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:

December 18, 2015    AND    December 17, 2020

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

Signed:

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Mitch Rouse  
Associate Director  
DEQ, Office of Air Quality

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Date

Table of Contents

<b>SECTION I: FACILITY INFORMATION .....</b>	<b>5</b>
<b>SECTION II: INTRODUCTION .....</b>	<b>6</b>
<b>Summary of Permit Activity .....</b>	<b>6</b>
<b>Process Description .....</b>	<b>6</b>
<b>Regulations .....</b>	<b>11</b>
<b>Emission Summary .....</b>	<b>11</b>
<b>SECTION III: PERMIT HISTORY .....</b>	<b>17</b>
<b>SECTION IV: SPECIFIC CONDITIONS .....</b>	<b>20</b>
SN-01Q and SN-02Qb .....	20
SN-03Qa, SN-03Qb, SN-03Qc, SN-09Q, & SN-10Q .....	23
SN-04Q .....	26
SN-05Q .....	27
SN-06Q and SN-29Q .....	29
SN-07Q .....	31
SN-11Q .....	33
SN-12Qa, SN-12Qb, & SN-13Q .....	43
SN-14Q & SN-15Q .....	45
SN-16Q, SN-17Q, & SN-18Q .....	47
SN-19Q, SN-20Q, & SN-21Q .....	49
SN-22Q .....	52
SN-24Q .....	54
SN-25Q .....	63
SN-26Q .....	65
SN-27Q .....	67
SN-28Q .....	69
SN-30Q .....	71
SN-31Q .....	81
SN-32Q .....	83
SN-33Q .....	85
SN-34Q .....	87
SN-35Q .....	88
SN-36Q & SN-37Q .....	90
SN-38Q & SN-39Q .....	92
SN-40Q .....	94
SN-41Q .....	95
SN-43Q .....	96
SN-46Q .....	101
SN-47Qa and 47Qb .....	106
SN-01P .....	113
SN-12P, SN-13P, SN-14P, & SN-29P .....	115
SN-18P & SN-19P .....	118
SN-20P & SN-24P .....	121
SN-26P .....	123

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

SN-30P, SN-31P, SN-33P, & SN-34P.....	124
SN-35P .....	126
SN-36P .....	128
<b>SECTION V: COMPLIANCE PLAN AND SCHEDULE .....</b>	<b>130</b>
<b>SECTION VI: PLANTWIDE CONDITIONS .....</b>	<b>131</b>
NSPS Subpart OOO.....	132
MACT AAAAAA.....	133
Title VI Provisions .....	134
Permit Shield.....	135
<b>SECTION VII: INSIGNIFICANT ACTIVITIES.....</b>	<b>137</b>
<b>SECTION VIII: GENERAL PROVISIONS.....</b>	<b>138</b>
Appendix A: 40 C.F.R. § 60 Subpart Y	
Appendix B: 40 C.F.R. § 60 Subpart HH	
Appendix C: 40 C.F.R. § 60 Subpart OOO	
Appendix D: 40 C.F.R. § 60 Subpart IIII	
Appendix E: 40 C.F.R. § 63 Subpart AAAAAA	

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

#### List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
C.F.R.	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
PM <sub>10</sub>	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

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

## **SECTION I: FACILITY INFORMATION**

PERMITTEE:	Arkansas Lime Company
AFIN:	32-00014
PERMIT NUMBER:	0045-AOP-R8
FACILITY ADDRESS:	600 Limesdale Road Batesville, AR 72503
MAILING ADDRESS:	P. O. Box 2356 Batesville, AR 72503
COUNTY:	Independence County
CONTACT NAME:	Nathan O'Neill
CONTACT POSITION:	Vice President & Plant Manager
TELEPHONE NUMBER:	(870) 793-2301
REVIEWING ENGINEER:	Bart Patton
UTM North South (Y):	Zone 15: 3962027.98 m
UTM East West (X):	Zone 15: 615724.20 m

## **SECTION II: INTRODUCTION**

### **Summary of Permit Activity**

Arkansas Lime Company owns and operates a limestone quarry and lime manufacturing plant near Batesville, in Independence County, Arkansas. The following changes are included in this minor modification to the Title V permit:

- Remove SN-02Qa Secondary Crusher and replace it with SN-02Qb Secondary Crusher
- Re-identify SN-03Q Triple Deck Screen as SN-03Qa Triple Deck Screen, and relocate it within the process
- Add SN-03Qb Scalp Screen and SN-03Qc Scalp Screen
- Recalculate emissions from SN-04Q Storage Piles, due to the changes in material routing
- Recalculate emissions from SN-06Q Unpaved Quarry Haul Roads, due to the changes in material routing
- Add conveyors and transfer points as part of existing SN-07Q Conveyor Transfer Points, and recalculate emissions using emission factors for the new materials and processes
- Replace existing emergency generator SN-43Q (diesel-fired, ) with new emergency generator SN-43Q (diesel-fired, 382 hp)
- Add SN-47Qa Storage Bins #1 and 2 and SN-47Qb Storage Bin #5 for the Sorting Machine buildings
- Add Sorting Machines to the Insignificant Activity List (category N/A for this source of no emissions)
- Update throughput limits for SN-01Q Primary Crusher and SN-03Qa Triple Deck Screen due to changes in material composition and process routing
- Add recordkeeping requirements to verify that PSD significant emissions rates are not exceeded for the beneficiation project

Permitted annual emissions increased as follows: 4.0 tpy PM. Permitted annual emissions decreased as follows: 0.6 tpy PM<sub>10</sub>, 0.5 tpy SO<sub>2</sub>, 0.6 tpy VOC, 1.6 tpy CO, and 7.4 tpy NO<sub>x</sub>.

### **Process Description**

#### **Quarry**

Arkansas Lime extracts high-grade limestone from its quarry, located approximately 6.5 miles west-northwest of Batesville. Commercial bulk and bag explosives are used to blast limestone away from the quarry face. Front-end loaders transfer the rock into quarry trucks, which carry the limestone to the quarry dump hopper and Grizzly Feeder (included under SN-07Q). The unpaved quarry haul roads (SN-06Q) and paved roads (SN-29Q) generate dust emissions.

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

The rock is processed through a collection of crushers (SN-01Q, SN-02Qb), screens (SN-03Qa, SN-03Qb, and SN-03Qc), conveyor belts (included under SN-07Q), stock piles (SN-04Q), storage bins (SN-47Qa and SN-47Qb), and sorting equipment. The processed limestone is then used to produce final products such as lime, AG-Lime (SN-09Q, SN-22Q), and pulverized limestone (PLS).

A portable trommel screen (SN-46Q) and an associated portable diesel-fired generator (SN-45Q, Insignificant Activity) is used to screen overburden from the quarry for useable limestone rock. The equipment is periodically moved around the site to process the various overburden piles. The trommel screen is subject to NSPS Subpart OOO, which affects non-metallic mineral processing plants. The associated portable diesel generator is not subject to NSPS Subpart III or NESHAP Subpart ZZZZ as long as the facility complies with the definition of a non-road, non-stationary engine for each engine, including indicia of portability (wheels, skids, etc.) and the movement of the engine at least once each 12 months.

The limestone pebbles that are too small for kiln feed are discharged to the Pulverized Limestone (PLS)/Ag-Lime Screen. The pebbles discharged from the PLS/Ag-Lime Screen are combined with the fines rejected from the Kiln Feed Screen (SN-10Q) and are dropped onto the Roller Mill Feed Loadout Surge Pile. The fines from the PLS/Ag-Lime Screen are dropped onto the Ag-Lime Storage Pile. The PLS feed and/or Ag-Lime can either be gathered by a reclaim tunnel and loaded into railcars (SN-05Q) for sale or for transport to the PLS/Lime Plant or can be loaded into trucks for sale via a front-end loader. Screens on the Ag-Lime screen may be changed to produce stone for sale. Screened stone are stockpiled next to the Ag-Lime pile for sale by truck and are loaded by front end loader.

### Lime Kilns

Vibrating feeders reclaim the stone from the Kiln Feed Surge Pile and feed it to belt conveyors (SN-07Q). The belt conveyors transport the stone to the Kiln Feed Screen where any “fines” are removed and routed to the PLS Surge Pile. The limestone pebbles are conveyed to the Preheater Surge Bin (SN-07Q, SN-27Q, and SN-35Q) of one of the three Rotary Lime Kilns (SN-11Q, SN-24Q, and SN-30Q). No fugitive emissions escape from the bin since it operates under a slight vacuum.

The limestone flows through vertical stone chutes, which are completely full of limestone, from the bottom of the stone bin to the Limestone Preheater where the limestone begins the calcination process. Hot combustion kiln exhaust gases are brought into contact with the limestone in the Preheater. Heat is used to release carbon dioxide from the limestone via the following reaction:



The residence time needed depends upon the size of the limestone feed because the centers of the limestone rocks must reach temperatures sufficient for the reaction to take place.

The hot kiln exhaust gases are drawn through each preheater to a kiln dust collector, where particulate is separated from the kiln exhaust gases before the gases are released through a stack. Each kiln is designed with its own dust collector and exhaust stack. The collected dust is conveyed to the Kiln Dust Bin (SN-12Qa) where it is loaded into trucks (SN-12Qb) for sales or disposal.

Limestone is transported into the Rotary Kiln via transfer chutes by the action of hydraulic rams in the bottom of the preheater. In the Rotary Kiln, the limestone flows countercurrent to the hot combustion gases. The combustion gases are generated through the firing of a combination of coal and coke. Alternately, pipeline-quality natural gas is fired in the kilns during startup and to produce low-sulfur lime. Gas firing results in higher fuel consumption and cost. Therefore, gas firing will primarily be used to meet the demand for low-sulfur product. In either process, the combustion occurs within the Rotary Kiln. The lime exits the Kiln through a Lime Cooler (SN-13Q, SN-25Q, and SN-32Q).

Lime is transferred from the Lime Cooler (one for each kiln) via covered conveyors and bucket elevators to the Kiln Run Silos (SN-14Q) and eventually to the Storage and Loadout Area. During startup or upset conditions, lime is diverted to the Fringe Bin, where it is loaded onto trucks and transported to the lime plant as hydrate feed, sold as-is, or stockpiled in the quarry for future sales. Under normal conditions, lime is temporarily stored in the Kiln Run Silos. The two Kiln Run Silos and one Fringe Bin are shared by all kilns. From the Kiln Run Silos, the lime is conveyed, screened, and crushed (if necessary) to meet product size specifications. The silos can load lime, also called quicklime, through Adustless® spouts to either trucks or railcars for shipment. Potential emissions from the screen, crusher, and silos are controlled by the Lime Screen/Storage Dust Collectors (SN-15Q, SN-16Q, SN-17Q, SN-18Q, SN-36Q, and SN-37Q). Potential emissions from the loadout operations are controlled by Adustless® loadout spouts (SN-38Q and SN-39Q).

A 382-hp diesel-fueled emergency generator (SN-43Q) associated with the Lime Kilns provides power to the kiln systems in case of electrical power failure. This unit was replaced in 2019 and is subject to 40 CFR Part 60, Subpart III.

### Coal and Coke Handling System

The primary heat source for the Rotary Lime Kilns is coal, petroleum coke, and/or natural gas combustion. The combination of coal, coke, and/or natural gas firing are adjusted daily based on the relative prices of each fuel, fuel availability, fuel sulfur content versus sulfur permit limits, and process needs (i.e., product requirements).

Coal and coke are unloaded from railcar (SN-19Q) and transported to the respective storage pile (SN-20Q) either via a conveyor system or by a backhoe and dump truck. The piles are partially covered with a roof. Front-end loaders withdraw coal or coke from the respective pile and dump the fuel into the appropriate coal or coke feed hopper (SN-21Q).



Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

Weigh feeders and belt conveyors (SN-28Q) mix the coal and coke and transfer the mixture to one of three Fuel Bins. Each Fuel Bin holds one day's fuel mix and feed the Bowl Mill for each kiln directly. The coal/coke mixture is ground to a fine powder in the Bowl Mill and is then blown directly into each Rotary Kiln.

#### Lime Processing at the Lime Plant

Quicklime is loaded into railcars for sales at the Quarry. Some of these railcars are diverted for use at the PLS/Lime plant. Quicklime is offloaded at the PLS/Lime Plant via a lime unloading system (SN-01P) and conveyed to storage silos.

Lime from the Quicklime Storage Silo is also sent via screw conveyors to two existing storage bins which feed the Hydrate System. Quicklime is reacted with water to form hydrated lime, which is a fine powder. Separators (SN-12P) and cyclones are used to remove coarse fractions. The hydrated lime is either sent to Bagging Operations (SN-14P) where it is packaged for sales or the Hydrate Storage Bin (SN-29P). From the Hydrate Storage Bin, the hydrate is loaded into trucks for shipment to customers (SN-13P).

#### Pulverized Limestone Plant (PLS)

Small limestone pebbles are transferred from the Quarry to the PLS/Lime plant via railcars. The limestone is dumped into the existing Dump Hopper (SN-35P) at the PLS/Lime Plant and conveyed to the Roller Mill Surge Bin. Alternatively, the limestone can be off loaded onto an emergency stockpile. The Surge Bin feeds the two Stone and Roller Mills (SN-18P and SN-19P) via screw conveyors.

Each mill is fed via an automatically controlled screw conveyor. In unusual circumstances, the feed rate can be controlled manually. The motor setting can be adjusted depending on the size and the moisture content of the limestone feed and the product requirements.

Fresh air is heated in a natural gas-fired heater before being added to the conveying air prior to entering the mill to dry the incoming limestone and facilitate the fine grinding operation. The makeup inlet operates under a slight vacuum. A portion of the air along with the moisture is removed through a vent fan. The amount of moisture removed from the system is controlled by the temperature balance between the makeup air temperature and the recycle air temperature. The gases removed from the system go to a dust collector.

Products from each mill are pneumatically transported through an exhaust cyclone. The products collected from the exhaust cyclone flow through a motorized dump valve, a flop gate, and a screw conveyor to the mechanical air separator. The coarse PLS (14 and 6 mesh) drops into a screw conveyor which sends the material to the PLS screen (SN-20P). The 200 mesh product from the separators is conveyed by the fines screw conveyor, which also receives 200 mesh material from the dust collector via a rotary airlock feeder.

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

The discharge from the fines screw conveyor can be routed in one of two locations: the 270 product storage tank or to the PLS Bagging Operations (SN-24P).

The mechanical air separator can be bypassed by switching the flop gate. This mode of operation is used when demand is for fine products. In this mode, fine material leaves the mill and is separated from the air stream in a cyclone. As in the normal mode, fine material is transported to storage.

The PLS Screen separates the limestone into two categories: medium coarse PLS and large coarse PLS. The medium coarse PLS is sent to the 140 Product Bins. From there, it can be sent to PLS Bagging or to the PLS Loadout Area. The large coarse PLS is either recycled to the Roller Mill's feed stream or sent to the 106 Storage Bin.

Each roller mill unit is enclosed. A dust collector serves each mill and controls the potential emissions from all the individual components including the conveyors, crushers, and screens.

The PLS Loadout operation consist of one partitioned bin (SN-30P) equipped with "dustless" loading spouts (SN-31P) for the limestone trucks. A truck scale is located under the bin to streamline the loading process. The products (i.e., 106, 140, 270, and 280) are stored in the four sections of the partitioned bin. Certain modified PLS products are loaded out to truck or rail via a dustless loading spout vented to a dust collector (SN-36P).

Railcars are loaded through dustless loading spouts (SN-33P and SN-34P) installed in dropouts from the conveyors to the truck loadout bin. These loadout spouts are for each of the two products shipped via rail (140 and 270).

The roads at the facility have been divided into the Unpaved Quarry Haul Roads (SN-06Q), the Paved Quarry/Kiln Area Roads (SN-29Q), and the Paved PLS/Lime Plant Roads (SN-26P).

#### Portable Trommel Screen Operations

A portable trommel screen (SN-46Q), and an associated portable diesel fueled generator, is used to screen overburden from the quarry for useable limestone rock. The equipment is periodically moved around the site to process the various overburden piles. The trammel screen is subject to NSPS Subpart OOO, which affects non-metallic mineral processing plants.

The associated portable diesel generator is not subject to NSPS Subpart IIII or NESHAP Subpart ZZZZ since it is not considered a stationary engine.

### Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective March 14, 2016
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective March 14, 2016
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective March 14, 2016
40 C.F.R. § 60 Subpart Y, New Source Performance Standards for Coal Preparation Plants
40 C.F.R. § 60 Subpart HH, New Source Performance Standards for Lime Manufacturing Plants
40 C.F.R. § 60 Subpart OOO, New Source Performance Standards for Non Metallic Mineral Processing Plants
40 C.F.R. § 60 Subpart IIII, Standards of Performance for Stationary Internal Combustion Compression Ignition Engines
40 C.F.R. § 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. § 63 Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants
40 C.F.R. § 64, Compliance Assurance Monitoring
40 C.F.R. § 52, Prevention of Significant Deterioration

### Emission Summary

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				
Source Number	Description <sup>b</sup>	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	114.2	325.5
		PM <sub>10</sub>	93.0	326.3
		SO <sub>2</sub>	135.3	426.0
		VOC	11.4	43.8

EMISSION SUMMARY				
Source Number	Description <sup>b</sup>	Pollutant	Emission Rates	
			lb/hr	tpy
		CO	261.6	1034.1
		NO <sub>x</sub>	313.2	1213.0
		HCl	24.0	95.64
		Total HAPs (Excluding HCl)	0.05	0.16
01Q	Primary Crusher	PM	0.5	0.8
		PM <sub>10</sub>	0.3	0.4
02Qb	Secondary Crusher	PM	0.5	1.1
		PM <sub>10</sub>	0.3	0.5
03Qa	Triple Deck Screen	PM	1.9	4.1
		PM <sub>10</sub>	0.7	1.4
03Qb	Scalp Screen	PM	1.0	2.2
		PM <sub>10</sub>	0.4	0.8
03Qc	Scalp Screen	PM	1.0	1.7
		PM <sub>10</sub>	0.4	0.6
04Q	Storage Piles	PM	4.6	20.2
		PM <sub>10</sub>	2.3	10.1
05Q	Railcar Loadout	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
06Q	Unpaved Quarry Haul Roads	PM	27.2	59.5
		PM <sub>10</sub>	7.8	17.0
07Q	Conveyor Transfer Points	PM	7.5	14.8
		PM <sub>10</sub>	3.4	6.6
09Q	PLS/Ag-Lime Screen	PM	0.7	0.9
		PM <sub>10</sub>	0.3	0.3
10Q	Kiln Feed Screen	PM	0.6	1.6
		PM <sub>10</sub>	0.2	0.6
11Q	Rotary Kiln 1	PM	6.9	27.4
		PM <sub>10</sub>	17.8	70.8
		SO <sub>2</sub>	44.8	141.7
		VOC	3.4	14.2
		CO	85.9	342.2
		NO <sub>x</sub>	100.2	399.3
		HCl	8.00	31.88
12aQ	Kiln-Dust Bin Vent Dust Collector	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
12bQ	Kiln-Dust Loadout Dust Collector	PM	0.2	0.9
		PM <sub>10</sub>	0.2	0.9

Arkansas Lime Company  
 Permit #: 0045-AOP-R8  
 AFIN: 32-00014

EMISSION SUMMARY				
Source Number	Description <sup>b</sup>	Pollutant	Emission Rates	
			lb/hr	tpy
13Q	#1 Lime Discharge (Nuisance Dust Collector)	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
14Q	Lime Product Silo Dust Collector	PM	0.2	0.9
		PM <sub>10</sub>	0.2	0.9
15Q	Lime Screen/Storage Dust Collector	PM	1.8	7.9
		PM <sub>10</sub>	1.8	7.9
16Q	Lime Loadout Dust Collector	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
17Q	Off-Spec Lime Loadout/Bin Vent	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
18Q	Lime Loadout to Railcars	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
19Q	Coal/Coke Receiving Area	PM	0.4	0.3
		PM <sub>10</sub>	0.2	0.2
20Q	Coal/Coke Storage Piles	PM	0.5	2.1
		PM <sub>10</sub>	0.3	1.1
21Q	Coal/Coke Transfer Points	PM	0.3	0.2
		PM <sub>10</sub>	0.2	0.1
22Q	Ag-Lime Loadout to Truck	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
24Q	Rotary Kiln 2	PM	5.8	22.9
		PM <sub>10</sub>	16.7	66.2
		SO <sub>2</sub>	44.8	141.7
		VOC	3.4	14.2
		CO	85.9	342.2
		NO <sub>x</sub>	100.2	399.3
		HCl	8.00	31.88
25Q	#2 Lime Discharge (Nuisance Dust Collector)	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
26Q	#1 and #2 Coal Bin Vents	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
27Q	Kiln Feed Belt into #2 Kiln Surge Bin	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
28Q	#1 and #2 Coal/Coke Transfer Points	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
29Q	Paved Quarry/Kiln Area Roads	PM	13.8	30.1
		PM <sub>10</sub>	2.7	5.9

EMISSION SUMMARY				
Source Number	Description <sup>b</sup>	Pollutant	Emission Rates	
			lb/hr	tpy
30Q	Rotary Lime Kiln 3	PM	5.8	22.9
		PM <sub>10</sub>	16.7	66.2
		SO <sub>2</sub>	44.8	141.7
		VOC	3.4	14.2
		CO	85.9	342.2
		NO <sub>x</sub>	100.2	399.3
		HCl	8.00	31.88
31Q	Transfer Points to Extended RKFS Pile	PM	0.7	1.9
		PM <sub>10</sub>	0.4	0.9
32Q	#3 Lime Discharge (Nuisance Dust Collector)	PM	0.3	1.2
		PM <sub>10</sub>	0.3	1.2
33Q	#3 Coal Bin Vent	PM	0.2	0.6
		PM <sub>10</sub>	0.2	0.6
34Q	#3 Coal/Coke Transfer Point	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
35Q	Kiln Feed Belt into #3 Kiln Surge Bin	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
36Q	Lime Storage Silo Dust Collector	PM	0.9	4.0
		PM <sub>10</sub>	0.9	4.0
37Q	Lime Storage Silo Dust Collector	PM	0.9	4.0
		PM <sub>10</sub>	0.9	4.0
38Q	Lime Loadout Dust Collector	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
39Q	Lime Loadout Dust Collector	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
40Q	LKD Truck Loading	PM	2.0	3.0
		PM <sub>10</sub>	1.0	1.4
41Q	LKD Truck Dumping	PM	2.0	3.0
		PM <sub>10</sub>	1.0	1.4
43Q	Emergency Generator (Diesel, 382 hp)	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.1	0.1
		CO	0.7	0.2
		NO <sub>x</sub>	2.9	0.8
		Total HAPs	0.02	0.01
46Q	Portable Trommel Screen Operations	PM	1.4	6.1
		PM <sub>10</sub>	0.5	2.1

EMISSION SUMMARY				
Source Number	Description <sup>b</sup>	Pollutant	Emission Rates	
			lb/hr	tpy
47Qa	Storage Bins #1 and 2	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
47Qb	Storage Bin #5	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.1
01P	Limestone Drop Points	PM	0.6	1.5
		PM <sub>10</sub>	0.3	0.7
12P	Hydrate Separator System Dust Collector	PM	1.9	8.1
		PM <sub>10</sub>	1.9	8.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.1	0.2
		CO	0.4	1.5
		NO <sub>x</sub>	0.4	1.8
		Total HAPs	0.01	0.04
13P	Hydrate Storage Tank Loadout	PM	0.3	1.0
		PM <sub>10</sub>	0.3	1.0
14P	Hydrated Lime Bagging Operations	PM	0.4	1.7
		PM <sub>10</sub>	0.2	0.6
18P	Stone and Roller Mill Plant #1	PM	2.6	11.4
		PM <sub>10</sub>	2.6	11.4
		SO <sub>2</sub>	0.1	0.1
		VOC	0.1	0.2
		CO	0.6	2.3
		NO <sub>x</sub>	0.7	2.8
		Total HAPs	0.02	0.06
19P	Stone and Roller Mill Plant #2	PM	1.8	7.7
		PM <sub>10</sub>	1.8	7.7
		SO <sub>2</sub>	0.1	0.1
		VOC	0.1	0.2
		CO	0.5	1.9
		NO <sub>x</sub>	0.6	2.3
		Total HAPs	0.01	0.05
20P	PLS Screening Operations	PM	1.4	6.0
		PM <sub>10</sub>	0.4	1.5
24P	PLS Bagging Operations	PM	0.4	1.7
		PM <sub>10</sub>	0.2	0.6
26P	Paved PLS/Lime Plant Roads	PM	7.3	15.9
		PM <sub>10</sub>	1.5	3.1
29P	Hydrate Storage Dust Collector	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8

Arkansas Lime Company  
 Permit #: 0045-AOP-R8  
 AFIN: 32-00014

EMISSION SUMMARY				
Source Number	Description <sup>b</sup>	Pollutant	Emission Rates	
			lb/hr	tpy
30P	Consolidated PLS Loadout Bin Vent	PM	0.4	1.5
		PM <sub>10</sub>	0.4	1.5
31P	New Consolidated PLS Truck Loadout	This source vents back into the loadout bin		
33P	Consolidated PLS 140 Railcar Drop-Out	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
34P	Consolidated PLS 270 Railcar Drop-Out	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8
35P	Quicklime Fines Rail Unloading Pit	PM	2.6	11.4
		PM <sub>10</sub>	0.9	3.8
36P	Modified PLS Products Loading Station	PM	0.2	0.8
		PM <sub>10</sub>	0.2	0.8

\*PM<sub>2.5</sub> limits are source specific, if required. Not all sources have PM<sub>2.5</sub> limits.

\*\*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.



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

Operations at what is now known as Arkansas Lime Company began in 1925.

Permit 45-A was issued to Rangeaire Corporation, Batesville, White Lime Division, on August 18, 1970. This permit allowed for the installation of one Sly 12-A Dynaclone and associated equipment.

Permit 45-AR-1 was issued on February 1, 1971, to allow for the installation of two Western Precipitation Turbalaire Scrubbers and associated equipment.

Permit 45-AR-2 was issued on July 24, 1979, to allow for the installation of several baghouses. Three baghouses were installed to control emissions from crushing, bagging, screening, and storage operations. A fourth baghouse was installed as a place for trucks to discard dust at before receiving shipments.

Permit 45-AR-3 was issued to Arkansas Lime Company, formerly known as Rangeaire Corporation, Batesville, White Lime Division, on April 22, 1987. This permit allowed for the installation of a new stone and rolling mill. A new baghouse on the old stone and rolling mill was also permitted.

Permit 45-AR-4 was issued on July 25, 1990, to allow for modifications to the hydrated lime process. It was stated in this permit that the emissions were not increasing from the rates set forth in 45-AR-3.

Permit 45-AR-5 was issued to Arkansas Lime Company -- Lime Plant on July 30, 1996. With this permit, the quarry and the lime plant began to operate under separate permits. The quarry is now operating under permit #1698-A. Permit 45-AR-5, which quantified annual emissions for the first time for this facility, set maximum emission rates at 405.6 tons per year of particulate matter, 0.8 tons per year of sulfur dioxide, 1.4 tons per year of volatile organic compounds (VOC), 1315.0 tons per year of carbon monoxide, and 43.0 tons per year of oxides of nitrogen.

Permit 1698-A was issued to Arkansas Lime Company for its quarry operations on July 11, 1996.

Permit 45-AOP-R0 was issued to Arkansas Lime Company -- Lime Plant on February 17, 1998. This was the first operating permit issued to Arkansas Lime Company under Regulation 26. Permitted emissions of volatile organic compounds increased to 2.6 tpy while the permitted emissions of particulate matter decreased to 374.3 tpy with this permit. No physical changes or changes in the method of operation were allowed under this permit.

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

Permit 45-AOP-R1 was issued to Arkansas Lime Company on September 14, 1999, and was administratively amended on October 21, 1999. (The administrative amendment was done to correct the effective dates of the permit on the title page of the permit.) This permit allowed for the installation of a new 625 ton per day rotary kiln at the quarry which replaced the six vertical kilns located at the lime plant. Several new sources were installed as a result of the new kiln and others were removed and/or replaced at both the quarry and the lime plant. The modifications caused significant net emissions increases in sulfur dioxide (226.0 tons per year) and oxides of nitrogen (395.0 tons per year). As a result, Arkansas Lime submitted a PSD permit application addressing the modifications taking place, including a BACT analysis and an ambient air impact analysis. The PSD section of this permit is included in Appendix F.

Permit 0045-AOP-2 was issued to Arkansas Lime Company on May 18, 2000. This permit was to install a second 625 tpd rotary lime kiln at its quarry near Batesville. Due to the installation of the new kiln, Arkansas Lime also proposed to install a new lime product cooler, a new lime product silo dust collector, a new limestone conveyor belt, and a new conveyor belt at the coal/coke preparation plant. The net emission increases of total suspended particulate, particulate matter with a diameter less than 10 microns, sulfur dioxide, and oxides of nitrogen exceeded the PSD Significant Increases. The PSD Significant Increase Level for carbon monoxide was not exceeded although there is a net emission increase of this pollutant. Permitted emissions of VOCs also increased.

Permit 0045-AOP-2 was Administratively Amended on May 8, 2001. This amendment removed references to the Top Bench Screen (SN-08Q), Feed Hopper, Conveyor, and Top-Off Bin (SN-23Q), and the Lime Crusher and Conveyor Point (SN-09P).

Permit 0045-AOP-R3 was issued on August 30, 2005. This permit modification was both a renewal and a PSD modification. The following changes occurred in this revision: the construction and operation of a third Preheater Rotary Lime Kiln (Kiln 3) along with associated new sources, Limestone Transfer Points (31Q), #3 Lime Product Cooler (32Q), and #3 Coal/Coke Bin Vent (33Q), #3 Coal/Coke Transfer Points (34Q), Kiln Feed Belt to #3 Kiln Limestone Surge Bin (35Q), Lime Storage Silo Dust Collector (36Q), Lime Storage Silo Dust Collector (37Q), Lime Loadout Dust Collector (38Q), Lime Loadout Dust Collector (39Q); the addition of Compliance Assurance Monitoring (CAM) and Lime MACT requirements; established new %O<sub>2</sub> ranges used to demonstrate compliance with the NO<sub>x</sub> and CO limits for each kiln; updated the Insignificant Activities List; changed the averaging period for production limits; changed the monitoring requirements for NO<sub>x</sub> emissions; installed a new Modified PLS Products Loading Station (SN-36P); quantified emissions of HCl from the kilns; increased SO<sub>2</sub> dry scrubbing control efficiency in the kilns from 92% to 95%.

Permit 0045-AOP-R4 was issued on May 22, 2009. The following changes occurred in this revision: Reduced the frequency of testing for PM<sub>10</sub>, CO, and NO<sub>x</sub>, at the rotary kiln sources, SN-11Q, SN-24Q, and SN-30Q from annual testing to once every five years. The tons of limestone products increased per consecutive 12 month period at Ag-Lime Loadout to Truck, SN-22Q, from 100,000 to 200,000 tons per year. Clarification of particulate testing for the rotary kiln sources, SN-11Q, SN-24Q, and SN-30Q. Clarification of the language for operation of water

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

sprays. The Coal/Coke Rail Dump, SN-19Q, was changed to the Coal/Coke Receiving Area to account for truck transfer unloading. The emission rates at the Coal/Coke Storage Pile (SN-20) was modified to account for a larger pile. Clarification of the opacity language to require action to be taken only if visible emissions exceed the opacity limits. Dribble Chutes storage pile was added to the sources at SN-04Q. Previously Insignificant Activities, The Emergency Lime Stockpile, the LKD Stockpile, and the Hydrate Rejects Stockpile, was added to the sources at SN-04Q. SN-15P and SN-16P, Rice Lime Screen & Crusher and Lime Storage Tank Loadouts, was removed from the list of permitted sources. Several Insignificant Activities were also added. SN-44P, Hydrate Rejects Discharge, and SN-42Q, Open Top Truck Lime Loading, have been added as a permitted source.

Permit 0045-AOP-R5 was issued on January 21, 2011. The following changes were included in Title V renewal permit:

- SN-12Qa, SN-12Qb, and SN-17Q emissions were updated to reflect the process maximum capacity therefore previous Specific Conditions concerning synthetic limitations were removed.
- Synthetic long term (annual) production limits for the kilns were added to the Specific Condition concerning short-term production limits.
- The emergency generator was removed from the insignificant activity list and is being designated SN-43Q.
- The Water Pump Engines were added to the permit as SN-44Q
- The hydrate reject discharge (SN-44P) was reclassified as an insignificant activity.
- The periodic five-year testing conditions were clarified to state the testing is required by June 30<sup>th</sup> of the testing year.
- The throughput limits for the crushers (SN-01Q and SN-02Q) will be used to demonstrate throughput limits for the conveyors, SN-07Q.
- Specific Conditions were added for the water sprays used for dust suppression on the site roads (SN-06Q and SN-29Q)

These changes and updated calculations resulted in emission increases of 92.7 tpy PM, 25.1 tpy PM<sub>10</sub>, 8.1 tpy SO<sub>2</sub>, 9.6 tpy VOC, 27.4 tpy CO, and 47.7 tpy NO<sub>x</sub>.

Permit 0045-AOP-R6 was issued on March 16, 2015. The facility added a portable generator (SN-45Q) to provide power for the new trommel screen operations (SN-46Q). The permitted emission increases included 6.7 tpy PM, 2.7 tpy PM<sub>10</sub>, 0.1 tpy SO<sub>2</sub>, 12.0 tpy VOC, 10.5 tpy CO, 12.0 tpy NO<sub>x</sub>, and 4.92E-02 tpy Total HAPs.

Permit 0045-AOP-R7 was issued on December 18, 2015. The following changes were included in the Title V renewal: The non-stationary engines (SN-44Q and SN-45Q) were removed from the source list because they are non-road engines exempt from permitting. The condensable PM<sub>10</sub> emission rates are now included for SN-11Q, SN-24Q and SN-30Q due to EPA's clarification that condensables shall be incorporated into PM<sub>10</sub> emission limits. HAPs from natural gas combustion are included for SN-12P, SN-18P and SN-19P. Permit conditions associated with the use of water sprays have been updated to denote water sprays are not required when ambient temperatures are near or below freezing. The total emissions changes are -8.7 tpy PM, +121.5 PM<sub>10</sub>, -7.3 tpy SO<sub>2</sub>, -20.8 tpy VOC, -34.1 tpy CO, -48.8 tpy NO<sub>x</sub> and +0.14 tpy Total HAPs.

## SECTION IV: SPECIFIC CONDITIONS

### SN-01Q and SN-02Qb Primary and Secondary Crusher

#### Source Description

The primary crusher has been designated as source SN-01Q while the secondary crusher has been designated as source SN-02Qb. The SN-01Q crusher was last replaced in 2006. The SN-02Qb crusher was installed in 2019, to replace the secondary crusher SN-02Q.

The crushers are both subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. Water sprays are the only type of control equipment associated with these sources.

#### 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 and #7 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
01Q	PM <sub>10</sub>	0.3	0.4
02Qb	PM <sub>10</sub>	0.3	0.5

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 Conditions #5 and #7 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
01Q	PM	0.5	0.8
02Qb	PM	0.5	1.1

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
01Q	15%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E
02Qb	12%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

4. The permittee shall conduct weekly observations of the opacity from sources SN-01Q and SN-02Qb and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Limestone per consecutive 12 month period
01Q	1,251,200
02Qb	1,746,468

6. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #5. The permittee shall update these records by the fifteenth day of the month following the month. The permittee shall keep these records onsite, and make them available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Arkansas Lime Company

Permit #: 0045-AOP-R8

AFIN: 32-00014

7. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-01Q and SN-02Qb. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1104, Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
8. Sources SN-01Q and SN-02Qb are subject to 40 C.F.R. § Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO can be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the requirements found in Specific Condition #3 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-03Qa, SN-03Qb, SN-03Qc, SN-09Q, & SN-10Q  
Quarry Limestone Screens

Source Description

The triple deck screen (SN-03Qa) replaced the old quarry screen in 2000. Scalp Screens SN-03Qb and SN-03Qc were installed in 2019. The PLS/AG-Lime Screen (SN-09Q) and the Kiln Feed Screen (SN-10Q) were installed in 2000.

These sources are subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. Water sprays are the only control equipment associated with these screens.

Specific Conditions

9. 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 #13 and #15 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
03Qa	PM <sub>10</sub>	0.7	1.4
03Qb	PM <sub>10</sub>	0.4	0.8
03Qc	PM <sub>10</sub>	0.4	0.6
09Q	PM <sub>10</sub>	0.3	0.3
10Q	PM <sub>10</sub>	0.2	0.6

10. 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 #13 and #15 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
03Qa	PM	1.9	4.1
03Qb	PM	1.0	2.2
03Qc	PM	1.0	1.7
09Q	PM	0.7	0.9
10Q	PM	0.6	1.6

11. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
03Qa, 09Q and 10Q	10%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E
03Qb and 03Qc	7%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

12. The permittee shall conduct weekly observations of the opacity from sources SN-03Qa, SN-03Qb, SN-03Qc, SN-09Q, and SN-10Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
13. The permittee shall not exceed the following process rates set forth in the following table at the designated sources. [Reg.18.1004 Reg.19.705, 40 C.F.R. § 70.6, and/or Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Limestone per consecutive 12 month period
03Qa	3,701,467
03Qb	1,955,000
03Qc	1,500,040
09Q	822,000
10Q	1,368,750



14. The permittee shall maintain records of the amounts of limestone processed at sources SN-03Qa, SN-03Qb, SN-03Qc, SN-09Q, and SN-10Q in order to demonstrate compliance with Specific Condition #13 which may be used by the Department for enforcement purposes. These records shall be updated by the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
15. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-09Q and at SN-10Q. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and/or Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
16. Sources SN-03Qa, SN-03Qb, SN-03Qc, SN-09Q, and SN-10Q are subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO can be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #11 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-04Q  
Storage Piles

Source Description

The Storage Piles have been designated as source SN-04Q. Source SN-04Q was originally installed prior to 1960. New piles were made in 2000, 2005, and 2018.

Several sources - The Emergency Lime Stockpile, the LKD Stockpile, and the Hydrate Rejects Stockpile - were previously considered insignificant sources and are now permitted under SN-04Q.

Specific Conditions

17. 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 #19 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
04Q	PM <sub>10</sub>	2.3	10.1

18. 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 #19 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
04Q	PM	4.6	20.2

19. The permittee shall water storage piles as needed to insure that no nuisance visible emissions extend beyond the property line of the facility. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-04Q. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-05Q  
Railcar Loadout

Source Description

Limestone from the roller mill feed surge stockpile is loaded out via railcar and transported to the lime plant. Water sprays are the only controls associated with this source. This source was replaced in 2000.

Specific Conditions

20. 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 #24 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
05Q	PM <sub>10</sub>	0.1	0.1

21. 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 #24 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	Pollutant	lb/hr	tpy
05Q	PM	0.1	0.1

22. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
05Q	20%	Reg.19.503, 40 C.F.R. § 52 Subpart E

23. The permittee shall conduct weekly observations of the opacity from source SN-05Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

24. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Number of Railcars Loaded per consecutive 12 month period
05Q	16,000

25. The permittee shall maintain records of the number of railcars loaded out at SN-05Q in order to demonstrate compliance with Specific Condition #24 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-06Q and SN-29Q  
Quarry Haul Roads

Source Description

A new loadout road was added to the existing roads in 2000. The only controls associated with the quarry haul roads are water sprays. The unpaved haul roads have been designated as source SN-06Q and consist of the roads leading down to the quarry bottom. The paved haul roads have been designated as source SN-29Q and consists of the roads around the lime kilns and storage areas.

Specific Conditions

26. 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 #28 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
06Q	PM <sub>10</sub>	7.8	17.0
29Q	PM <sub>10</sub>	2.7	5.9

27. 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 #28 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
06Q	PM	27.2	59.5
29Q	PM	13.8	30.1

28. The permittee shall water the haul roads as necessary in order to reduce fugitive emissions. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
29. The permittee shall not operate in a manner such that fugitive emissions from the storage piles, aggregate handling, and haul roads (SN-06Q & SN-29Q) would cause a nuisance off-site. The permittee shall use water sprays, sweeping, or other techniques as necessary to control fugitive emissions that could potentially migrate off-site. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

30. Nothing in this permit shall be construed to authorize a violation of the Arkansas Water and Air Pollution Control Act or the federal National Pollutant Discharge Elimination System (NPDES). [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-07Q  
 Conveyor Transfer Points

Source Description

The Conveyor Transfer Points have been designated as source SN-07Q. Source SN-07Q was originally installed prior to 1970, but was modified in 2000 and 2018.

Source SN-07Q is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants and 40 C.F.R. § 63 Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants.

Specific Conditions

31. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
07Q	PM <sub>10</sub>	3.4	6.6

32. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through equipment limitations. [§18.801 of Regulation #18 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	Pollutant	lb/hr	tpy
07Q	PM	7.5	14.8

33. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
07Q	7%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), 40 C.F.R. § 63.7080 Table 1, Item 7, 40 C.F.R. § 63.7080 Table 3, Item 4, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

34. The permittee shall conduct weekly observations of the opacity from source SN-07Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
35. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-07Q. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
36. Source SN-07Q is subject to 40 C.F.R. § Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants upon replacement. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions #33 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
37. Transfer Point D06 (Kiln Feed Belt into Stone Bin) of Source SN-07Q is subject to the provisions of 40 C.F.R. § Part 63, Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #33 and #38 and Plantwide Conditions #13 through #15. [40 C.F.R. § 63.7080 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
38. Source SN-07Q has been defined as an existing processed stone handling (PSH) operation because construction or reconstruction began before December 20, 2002. [Reg.19.304 and 40 C.F.R. § 63.7082(b)]



SN-11Q  
 Rotary Lime Kiln 1

Source Description

Construction on this rotary lime kiln began in late 1999. The fuels for this kiln are a blend of coal and coke with natural gas. The permittee may use 100% natural gas at times when it is necessary to produce a low sulfur lime product. Particulate matter emissions are controlled through the use of a baghouse. Sulfur dioxide emissions are controlled through dry scrubbing which occurs naturally in the lime kiln and at the filter cake on the baghouse. No other control equipment is associated with this lime kiln.

This source is subject to 40 C.F.R. § 60 Subpart HH - Standards of Performance for Lime Manufacturing Plants, 40 C.F.R. § 63 Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

The following table lists the BACT Limits and Determinations for this source:

Pollutant	BACT Limit	BACT Determination
SO <sub>2</sub>	4% by Weight Sulfur in Fuel on a Daily Basis and 3% by Weight Sulfur in Fuel on a 30-Day Rolling Average	Natural Dry Scrubbing In Kiln and Baghouse
NO <sub>x</sub>	3.5 lb NO <sub>x</sub> per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation

Specific Conditions

39. 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 #44, #46, #51, #54, #62, and #76 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
11Q	PM <sub>10</sub>	17.8	70.8
	VOC	3.4	14.2
	CO	85.9	342.2

40. 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 #44, #46, #51, #71, and #73 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
11Q	SO <sub>2</sub>	44.8	141.7
	NO <sub>x</sub>	100.2	399.3

41. 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 #44, #46, #51, #54, and #62 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
11Q	PM	6.9	27.4
	HCl	8.0	31.88

42. Visible emissions may not exceed the limits specified in the following table. Compliance with the opacity limits shall be demonstrated through compliance with Specific Condition 43. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Limit	Regulatory Citation
11Q	15%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.342(a)(2), 40 C.F.R. § 63.7080 Table 2, Item 1, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

43. The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40% opacity. The recordings shall be kept on site and made available to Department personnel upon request. [Reg.19.304, Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 C.F.R. §§ 60.343(a), 63.7113(g), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

44. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705, Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Coal and/or Coke per consecutive 12 month period
11Q	47,254

45. The permittee shall maintain records of the amount of coal and coke fired in the lime kiln in order to demonstrate compliance with Specific Condition #44 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.*, and 40 C.F.R. § 52 Subpart E]

46. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Lime per day
11Q	687.0

47. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Lime Per Year
11Q	228,125

48. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #46 and #47 and which may be used by the Department for enforcement purposes. These records shall be updated daily, kept on site, and made available to Department personnel upon request. An annual total and each month's individual data shall be submitted to the Department in accordance with General Provision 7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

49. The permittee shall obtain a manufacturer's certification of the ash mineral analysis of the coal in order to demonstrate that any possible emissions of Hazardous Air Pollutants (HAPs) are below the de minimis levels. A new certification shall be obtained each time that coal is obtained from a different mine. This certification shall be kept on site and shall be made available to Department personnel upon request. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

50. All required tests shall be conducted while firing coal and/or coke. All required tests shall also be conducted in accordance with Plantwide Condition #3. [Reg.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
51. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
52. The permittee shall test SN-11Q every five years for particulate matter using EPA Reference Method 5. The permittee shall also conduct test for condensable particulate emissions concurrently using EPA reference Method 202 and include these results in PM<sub>10</sub> value for compliance with emission rates. Results shall be used in order to demonstrate compliance with the particulate emission limits of Specific Condition #39. All tests shall take place in accordance with Plantwide Condition #3 and shall occur by June 30 of the testing year. The most recent test date for this source is July 2014. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]

*NSPS Subpart HH*

53. Source SN-11Q is subject to the provisions of 40 C.F.R. § 60 Subpart HH - Standards of Performance for Lime Manufacturing Plants. A copy of Subpart HH has been included in Appendix B of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #54 through #58. [40 C.F.R. § 60.340(a) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
54. On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed. [Reg.19.304 and Reg.19.501 *et seq.*, 40 C.F.R. § 60.342(a)(1), and 40 C.F.R. § 52 Subpart E]
55. The owner or operator shall determine compliance with the particulate matter standards in Specific Condition #54 as follows. Performance testing for SN-11Q was performed on April, 2001. [Reg.19.304 and Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 60.344(b)(1) through (4), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
  - a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (Cs \text{ Qsd})/PK$$

where:

E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed  
Cs = concentration of particulate matter, g/dscm (g/dscf)  
Qsd = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)  
P = stone feed rate, Mg/hr (ton/hr)  
K = conversion factor, 1000 g/kg (453.6g/lb)

- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
  - c. The monitoring device of §60.343(d) (Specific Condition #56) shall be used to determine the stone feed rate (P) for each run.
  - d. Method 9 and the procedures in §60.11 shall be used to determine opacity.
56. For the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the affected rotary lime kiln. The measuring device used must be accurate to within + or - 5 percent of the mass rate over its operating range. The permittee shall continue to maintain and operate this device after the initial performance test has been completed. [Reg.19.304 and Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 60.343(d), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
57. For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent. [Reg.19.304 and 40 C.F.R. § 60.343(e)]
58. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). [Reg.19.304 and Reg.19.702, 40 C.F.R. § 52 Subpart E, and 40 C.F.R. § 60.344(a)]

*MACT AAAAA*

59. Source SN-11Q is subject to the provisions of 40 C.F.R. § 63 Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #60 through #70 and Plantwide Conditions #13 through #15. [40 C.F.R. § 63.7080 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
60. Source SN-11Q has been defined as an existing lime kiln because construction or reconstruction began before December 20, 2002. [Reg.19.304 and 40 C.F.R. § 63.7082(e)]
61. Because SN-11Q has been defined as an existing source, the permittee must comply with the limitations set forth in Specific Conditions #61 through #70 by January 5, 2007. [Reg.19.304 and 40 C.F.R. § 63.7083(b)]
62. Particulate emissions from SN-11Q shall not exceed 0.12 lbs per ton of stone fed. [Reg.19.304 and 40 C.F.R. § 63.7080 Table 1, Item 1]
63. The owner or operator shall determine compliance with the MACT particulate matter standards in Specific Condition #62 as follows: [Reg.19.304 and 40 C.F.R. § 63.7080 Table 3, Item 1 and §63.7111]
- a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:
- $$E = (Cs \text{ Qsd})/PK$$
- where:
- E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed  
Cs = concentration of particulate matter, g/dscm (g/dscf)  
Qsd = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)  
P = stone feed rate, Mg/hr (ton/hr)  
K = conversion factor, 1000 g/kg (453.6g/lb)
- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).

- c. The monitoring device of Specific Condition #56 shall be used to determine the stone feed rate (P) for each run.
  - d. The permittee shall conduct the performance test of #63 a, b, and c every five years following the initial performance test.
64. The permittee shall maintain a fabric filter on SN-11Q such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [Reg.19.304 and 40 C.F.R. § 63.7080 Table 2, Item 1]
65. For each emission unit equipped with an add-on air pollution control device, the permittee must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Item 6 of Table 2 to this subpart and record the results of each inspection. These records shall be maintained on site and made available to Department Personnel upon request. [Reg.19.304 and 40 C.F.R. § 63.7113(f)]
66. For each COMS used to monitor an add-on air pollution control device, the permittee must meet the following requirements: [Reg.19.304 and 40 C.F.R. § 63.7113(g)]
- 1. Install the COMS at the outlet of the control device.
  - 2. Install, maintain, calibrate, and operate the COMS as required by 40 C.F.R. § 63 Subpart A, General Provisions and according to Performance Specification – 1 of Appendix B to Part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
67. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 5, Item 4(a)(ii)]
68. The permittee shall implement the written Operations, Maintenance, and Monitoring (OM&M) plan submitted with this permit application. Any subsequent changes to the plan must be submitted for review and approval. [Reg.19.304 and 40 C.F.R. § 63.7100(d)]
69. Rotary Lime Kiln 1 (SN-11Q) must vent captured emissions through a closed system. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 2, Item 6a]
70. Rotary Lime Kiln 1 (SN-11Q) must operate each capture/collection system according to procedures in the OM&M plan. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 2, Item 6b]

*SO<sub>2</sub> Conditions*

71. The sulfur content of the fuel mix used to fire the kiln shall not exceed 4% by weight on a daily basis as fired in the kiln and shall not exceed 3% on a rolling 30-day average. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
72. The permittee shall obtain manufacturer's certification of the sulfur content of each shipment of the coal/coke mix or conduct tests of each shipment of fuel to determine the sulfur content and shall perform any necessary calculations in order to demonstrate compliance with Specific Condition #71 and which may be used by the Department for enforcement purposes. These records shall be updated for each shipment, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NO<sub>x</sub>*

73. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
74. The permittee shall test source SN-11Q for oxides of nitrogen using EPA Reference Method 7E. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat the test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [Reg.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]



75. The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions limit in Specific Condition #73 for source SN-11Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Reg.19.703 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- a. The permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor in the exhaust end, but before the preheater, of source SN-11Q. The permittee shall operate the oxygen monitor in accordance with the QA/QC practices listed in Specific Conditions #75e through #75h.
  - b. The permittee shall operate the kiln at all times, except during startup, shutdown, and malfunction, such that the 30-day rolling average kiln gas percent oxygen (%O<sub>2</sub>) content (measured at the oxygen monitor) is less than or equal to 0.93%.
  - c. The permittee shall use this oxygen monitor to demonstrate compliance with the maximum %O<sub>2</sub> kiln gas limit established by Specific Condition #75b. The permittee shall use the data from the continuous oxygen monitor (to predict the NO<sub>x</sub> emission rate), along with lime production records, to demonstrate compliance with Specific Condition #73.
  - d. The permittee shall measure at least four, evenly spaced %O<sub>2</sub> values every hour that the kiln is in operation and use the hourly data to develop a 24-hour average for each day. Each daily average shall be used to determine the actual rolling 30-day average for comparison to the limit established by Specific Condition #75b.
  - e. The oxygen monitor shall meet a minimum frequency of monitor operation of 95% up-time.
  - f. Source SN-11Q shall comply with the limit in Specific Condition #75b by meeting a minimum frequency of 95% compliance on a 30-day rolling average.
  - g. The permittee shall conduct calibration and zero-span checks of the O<sub>2</sub> monitor when the cells are replaced and every four weeks following installation per the manufacturer's recommended calibration procedures. Records of this maintenance shall be maintained on site and made available for department personnel upon request.
  - h. Within 14 days prior to the kiln performance stack tests, a kiln gas sample from the O<sub>2</sub> monitor shall be split and analyzed by a certified, third-party O<sub>2</sub> analyzer. The relative accuracy (RA) of the O<sub>2</sub> monitor shall be determined by this split sample and the RA estimation method in 40 C.F.R. § 60, Appendix B, Performance Draft Specification 2. The RA of the O<sub>2</sub> monitor shall be no greater than 20%. Results of the RA calculation shall be included with the performance test report.

- i. Monitor up-time, monitor calibration checks, the %O<sub>2</sub> rolling 30-day average values, and any deviations from the rolling 30-day O<sub>2</sub> limit shall be recorded daily, kept on-site, and made available to Department personnel upon request. A report including the total monitor up-time, kiln operating time, 30-day rolling average %O<sub>2</sub> values, and percent compliance shall be submitted to the Department in accordance with General Provision #7.

*CO*

76. The permittee shall test source SN-11Q for carbon monoxide using EPA Reference Method 10. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat the test every five years. The test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]
77. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #39 for source SN-11Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Reg.19.703, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
  - a. The permittee shall operate the kiln at all times, except during startup, shutdown, and malfunction, such that the 30-day rolling average kiln gas percent oxygen (%O<sub>2</sub>) content (measured at the oxygen monitor) is not less than 0.60%.
  - b. The permittee shall use the oxygen monitor required by Specific Condition #75a to demonstrate compliance with the minimum %O<sub>2</sub> kiln gas limit established by Specific Condition #77a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #75e through #75i.
  - c. The permittee shall measure at least four, evenly spaced %O<sub>2</sub> values every hour that the kiln is in operation and use the hourly data to develop a 24-hour average for each day. Each daily average shall be used to determine the actual rolling 30-day average for comparison to the limit established by Specific Condition #77a.

SN-12Qa, SN-12Qb, & SN-13Q  
Kiln-Dust Bin Vent Dust Collectors and #1 Lime Discharge (Nuisance Dust Collector)

Source Description

The lime dust collected by the baghouse on the lime kiln is sold off site. The emissions generated by the kiln-dust bin vent are controlled through fabric-filter type dust collectors which have been designated as source SN-12Qa and SN-12Qb. Also included in the emission rates for source SN-12Qa and SN-12Qb are the emissions generated by the bin loadout.

After the limestone has been calcined in the kiln, it is sent to the lime product cooler. Emissions from the lime product cooler are controlled through the use of a fabric filter which has been designated as source SN-13Q.

Source SN-13Q is subject to CAM for particulate emissions. Daily opacity observations are the method used to demonstrate compliance.

Specific Conditions

78. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
12Qa	PM <sub>10</sub>	0.3	1.2
12Qb	PM <sub>10</sub>	0.2	0.9
13Q	PM <sub>10</sub>	0.3	1.2

79. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
12Qa	PM	0.3	1.2
12Qb	PM	0.2	0.9
13Q	PM	0.3	1.2

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

80. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
12Q(a&b) and 13Q	5%	Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

81. The permittee shall conduct weekly observations of the opacity from source SN-12Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
82. The permittee shall conduct daily observations of the opacity from source SN-13Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501, 40 C.F.R. § 64, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-14Q & SN-15Q  
Lime Product Silo Dust Collector and Screen/Storage Dust Collector

Source Description

After the lime has been cooled in the product cooler, it is transferred to the lime product silo. Emissions from this silo are controlled through the use of a fabric filter type dust collector which has been designated as source SN-14Q.

Emissions generated by the lime screen and crusher are controlled through the use of a dust collector. This source has been designated as SN-15Q.

Source SN-15Q is subject to CAM for particulate emissions. Daily opacity observations are the method used to demonstrate compliance.

Specific Conditions

83. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
14Q	PM <sub>10</sub>	0.2	0.9
15Q	PM <sub>10</sub>	1.8	7.9

84. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
14Q	PM	0.2	0.9
15Q	PM	1.8	7.9

85. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
14Q and 15Q	5%	Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

86. The permittee shall conduct weekly observations of the opacity from source SN-14Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
87. The permittee shall conduct daily observations of the opacity from source SN-15Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501, 40 C.F.R. § 64, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-16Q, SN-17Q, & SN-18Q  
Lime Loadout Dust Collector, Off Spec Lime Loadout/Bin Vent, and  
Lime Loadout to Railcars

Source Description

Source SN-16Q controls emissions generated by the truck loadout of quicklime, source SN-17Q controls emissions generated by the truck loadout of off-spec lime, and source SN-18Q controls emissions generated by the rail loadout of quicklime sales and transfer. All of these sources use fabric filter type dust collectors.

Specific Conditions

88. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
16Q	PM <sub>10</sub>	0.2	0.8
17Q	PM <sub>10</sub>	0.2	0.8
18Q	PM <sub>10</sub>	0.2	0.8

89. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
16Q	PM	0.2	0.8
17Q	PM	0.2	0.8
18Q	PM	0.2	0.8

90. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
16Q, 17Q and 18Q	5%	Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

91. The permittee shall conduct weekly observations of the opacity from sources SN-16Q, SN-17Q, and SN-18Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]



SN-19Q, SN-20Q, & SN-21Q  
Coal/Coke Preparation Plant

Source Description

Source SN-19Q is the Coal/Coke Receiving Area. Source SN-20Q consists of the Coal and Coke Storage Piles. Source SN-21Q consists of the Coal/Coke Conveyor Transfer Points. No control equipment is associated with the other sources at the coal/coke preparation plant.

Compliance with these emission rates are demonstrated through the limit on the amount of coal and coke that the permittee is allowed to fire in the rotary lime kilns. The Department recognizes that source SN-21Q handles some of the coal and coke more than one time. However, since the permittee not be buying significantly more coal and coke than be burned in the lime kilns, no additional record keeping will be required for source SN-21Q. The coal preparation plant also consists of coal processing and storage operations (as defined in 40 C.F.R. § 60.251). No emissions are expected from these sources due to their design. However, the permittee will be required to test these sources as required under 40 C.F.R. § 60.

Due to the additional coal being handled, the coal/coke preparation plant is subject to the requirements of 40 C.F.R. § 60 Subpart Y - Standards of Performance for Coal Preparation Plants.

Specific Conditions

92. 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 #96 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
19Q	PM <sub>10</sub>	0.2	0.2
20Q	PM <sub>10</sub>	0.3	1.1
21Q	PM <sub>10</sub>	0.2	0.1

93. 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 #96 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
19Q	PM	0.4	0.3
20Q	PM	0.5	2.1
21Q	PM	0.3	0.2

94. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
19Q and 20Q	20%	Reg.19.503 and 40 C.F.R. § 52 Subpart E
21Q	20%	Reg.19.304, Reg.19.503, 40 C.F.R. § 60.252(c), and 40 C.F.R. § 52 Subpart E

95. The permittee shall conduct weekly observations of the opacity from sources SN-19Q, SN-20Q, and SN-21Q, and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
96. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Coal/Coke per consecutive 12 month period
19Q	141,759

97. The permittee shall maintain records of the coal/coke throughput at source SN-19Q in order to demonstrate compliance with Specific Condition #96 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
98. Source SN-21Q as well as the coal processing and storage operations (other than the open storage piles) is subject to the applicable provisions of 40 C.F.R. § 60, Subpart Y - Standards of Performance for Coal Preparation Plants due to the size of the coal preparation plant and its date of installation. A copy of Subpart Y has been included in Appendix A of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items contained in Specific Conditions #99 through #100. [40 C.F.R. § 60.250(a) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
99. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). [Reg.19.304 and 40 C.F.R. § 60.254(a)]
100. The owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11. [Reg.19.304 and 40 C.F.R. § 60.254(b)(2)]

SN-22Q  
Ag-Lime Loadout to Truck

Source Description

The Ag-Lime truck loadout operations have been designated as source SN-22Q. No control equipment is associated with this source.

Specific Conditions

101. 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 #105 and #107 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
22Q	PM <sub>10</sub>	0.1	0.1

102. 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 #105 and #107 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
22Q	PM	0.1	0.1

103. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
22Q	20%	Reg.19.503 and 40 C.F.R. § 52 Subpart E

104. The permittee shall conduct weekly observations of the opacity from source SN-22Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
105. The permittee shall not exceed the following process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Tons of limestone products (including but not limited to Ag- Lime) per consecutive 12 month period
22Q	200,000

106. The permittee shall maintain records of the amounts of limestone products (including but not limited to Ag-Lime) processed at SN-22Q in order to demonstrate compliance with Specific Condition #105 and which may be used by the Department for enforcement purposes. These records shall be updated by the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
107. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-22Q. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-24Q  
 Rotary Lime Kiln 2

Source Description

Construction on this rotary lime kiln was in the fall of 2003. The fuels for this kiln are blend of coal and coke with natural gas. The permittee may use 100% natural gas when it is necessary to produce a low sulfur lime product. Particulate matter emissions are controlled through the use of a baghouse. Sulfur dioxide emissions are controlled through dry scrubbing which occurs naturally in the lime kiln and at the filter cake on the baghouse. No other control equipment is associated with this lime kiln.

This source is subject to 40 C.F.R. § 60 Subpart HH - Standards of Performance for Lime Manufacturing Plants, 40 C.F.R. § 63 Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

The following table lists the BACT Limits and Determinations for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.015 gr/dscf 15% Opacity	Baghouse-type Dust Collector
SO <sub>2</sub>	4% by Weight Sulfur in Fuel on a Daily Basis and 3% by Weight Sulfur in Fuel on a 30-Day Rolling Average	Natural Dry Scrubbing In Kiln and Baghouse
NO <sub>x</sub>	3.5 lb NO <sub>x</sub> per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation

Specific Conditions

108. 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 #112, #113, #115, #119, #129, #137, and #140, and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
24Q	PM <sub>10</sub>	16.7	66.2
	PM	5.8	22.9
	SO <sub>2</sub>	44.8	141.7
	NO <sub>x</sub>	100.2	399.3

109. 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 #112, #113, #115, and #143 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
24Q	VOC	3.4	14.2
	CO	85.9	342.2

110. 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 #113 and #115 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
24Q	HCl	8.00	31.88

111. All required tests shall be conducted while firing coal and/or coke. All required tests shall also be conducted in accordance with Plantwide Condition 3. [Reg.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
112. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
113. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Coal and/or Coke per consecutive 12 month period
24Q	47,254

114. The permittee shall maintain records of the amount of coal and coke fired in the lime kiln in order to demonstrate compliance with Specific Condition #113 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

115. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Lime per day
24Q	687.0

116. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Lime per year
24Q	228,125

117. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #115 and #116, which may be used by the Department for enforcement purposes. These records shall be updated daily, kept on site, and made available to Department personnel upon request. An annual total and each month's individual data shall be submitted to the Department in accordance with General Provision 7. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
118. The permittee shall obtain a manufacturer's certification of the ash mineral analysis of the coal in order to demonstrate that any possible emissions of Hazardous Air Pollutants (HAPs) are below the de minimis levels. A new certification shall be obtained each time that coal is obtained from a different mine. This certification shall be kept on site and shall be made available to Department personnel upon request. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

*PM/PM<sub>10</sub> & Opacity*

119. Particulate matter emissions from source SN-24Q shall not exceed 0.015 grains per dry standard cubic foot of air. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]



120. The permittee shall test SN-24Q every five years for particulate matter using Method 5. EPA Reference Method 5 results shall be used in order to demonstrate compliance with the pound per hour emission limit set forth in Specific Condition #108 and the grain loading factor set forth in Specific Condition #119. The permittee shall also conduct test for condensable particulate emissions concurrently using EPA reference Method 202 and include these results in PM<sub>10</sub> value for compliance with emission rates. All tests shall take place in accordance with the plantwide conditions of this permit and shall occur by June 30 of the testing year. The most recent test was performed May 15, 2013. [Reg.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NSPS Subpart HH*

121. Source SN-24Q is subject to the provisions of 40 C.F.R. § 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants. A copy of Subpart HH has been included in Appendix B of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #122 through #126. [40 C.F.R. § 60.340(a) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
122. For the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the affected rotary lime kiln. The measuring device used must be accurate to within + or - 5 percent of the mass rate over its operating range. The permittee shall continue to maintain and operate this device after the initial performance test has been completed. This testing was performed in April, 2004. [Reg.19.304 and Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 60.343(d), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
123. Visible emissions may not exceed the limits specified in the following table. Compliance with the opacity limits shall be demonstrated through compliance with Specific Condition 124. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Limit	Regulatory Citation
24Q	15%	Reg.18.501, Reg.19.304 and Reg.19.901 <i>et seq.</i> , 40 C.F.R. § 60.342(a)(2), 40 C.F.R. § 63.7080 Table 2, Item 1, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

124. The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40 percent opacity. These records shall be maintained on site and made available to Department Personnel upon request. [Reg.19.304 and Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 60.343(a), 40 C.F.R. § 63.7113(g), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
125. For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent. [Reg.19.304 and 40 C.F.R. § 60.343(e)]
126. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). [Reg.19.304 and Reg.19.702, 40 C.F.R. § 52 Subpart E, and 40 C.F.R. § 60.344(a)]

*MACT AAAAA*

127. Source SN-24Q is subject to the provisions of 40 C.F.R. § 63 Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #128 through #137 and Plantwide Conditions #13 through #15. [40 C.F.R. § 63.7080 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
128. Source SN-24Q has been defined as a new lime kiln because construction or reconstruction began after December 20, 2002. [Reg.19.304 and 40 C.F.R. § 63.7082(b)]
129. Particulate emissions from SN-24Q shall not exceed 0.10 lbs per ton of stone fed. [Reg.19.304 and 40 C.F.R. § 63.7080 Table 1, Item 3]

130. The owner or operator shall determine compliance with the particulate matter standards in Specific Condition #129 as follows: [Reg.19.304 and 40 C.F.R. § 63.7080 Table 3, Item 1]

- a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (Cs \text{ Qsd})/PK$$

where:

E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed  
Cs = concentration of particulate matter, g/dscm (g/dscf)  
Qsd = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)  
P = stone feed rate, Mg/hr (ton/hr)  
K = conversion factor, 1000 g/kg (453.6g/lb)

- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
- c. The monitoring device of Specific Condition #122 shall be used to determine the stone feed rate (P) for each run.
- d. The permittee shall conduct the performance test of #130 a, b, and c every five years following the initial performance test.
131. The permittee shall maintain a fabric filter on SN-24Q such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [Reg.19.304 and 40 C.F.R. § 63.7080 Table 2, Item 1]
132. For Rotary Lime Kiln 2 (SN-24Q), the permittee must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Item 6 of Table 2 to this subpart and record the results of each inspection. [Reg.19.304 and 40 C.F.R. § 63.7113(f)]

133. For each COMS used to monitor an add-on air pollution control device, the permittee must meet the following requirements: [Reg.19.304 and 40 C.F.R. § 63.7113(g)]
1. Install the COMS at the outlet of the control device.
  2. Install, maintain, calibrate, and operate the COMS as required by 40 C.F.R. § 63, Subpart A, General Provisions and according to Performance Specification – 1 of Appendix B to Part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
134. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 5, Item 4(a)(ii)]
135. The permittee shall implement the written Operations, Maintenance, and Monitoring (OM&M) plan submitted with this permit application. Any subsequent changes to the plan must be submitted for review and approval. [Reg.19.304 and 40 C.F.R. § 63.7100(d)]
136. Rotary Lime Kiln 2 (SN-24Q) must vent captured emissions through a closed system. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 2, Item 6a]
137. Rotary Lime Kiln 2 (SN-24Q) must operate each capture/collection system according to procedures in the OM&M plan. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 2, Item 6b]

$SO_2$

138. The sulfur content of the fuel mix used to fire the kiln shall not exceed 4% by weight on a daily basis as fired in the kiln and shall not exceed 3% on a rolling 30-day average. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
139. The permittee shall obtain manufacturer's certification of the sulfur content of each shipment of the coal/coke mix or conduct tests of each shipment of fuel to determine the sulfur content and shall perform any necessary calculations in order to demonstrate compliance with Specific Condition #138 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NO<sub>x</sub>*

140. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
141. The permittee shall test source SN-24Q for oxides of nitrogen using EPA Reference Method 7E. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat this test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed May 15, 2013. [Reg.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
142. The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions limit in Specific Condition #140 for source SN-24Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Reg.19.703 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
  - a. The permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor in the exhaust end, but before the preheater, of source SN-24Q. The permittee shall operate the oxygen monitor in accordance with the QA/QC practices listed in Specific Conditions #142e through #142h.
  - b. The permittee shall operate the kiln at all times, except during startup, shutdown, and malfunction, such that the 30-day rolling average kiln gas percent oxygen (%O<sub>2</sub>) content (measured at the oxygen monitor) is less than or equal to 0.93%.
  - c. The permittee shall use this oxygen monitor to demonstrate compliance with the maximum %O<sub>2</sub> kiln gas limit established by the testing required by Specific Condition #141. The permittee shall use the data from the continuous oxygen monitor (to predict the NO<sub>x</sub> emission rate), along with lime production records, to demonstrate compliance with Specific Condition #140.
  - d. The permittee shall measure at least four, evenly spaced %O<sub>2</sub> values every hour that the kiln is in operation and use the hourly data to develop a 24-hour average for each day. Each daily average shall be used to determine the actual rolling 30-day average for comparison to the limit established by Specific Condition #142b.
  - e. The oxygen monitor shall meet a minimum frequency of monitor operation of 95% up-time.
  - f. Source SN-24Q shall comply with the limit in Specific Condition #142b by meeting a minimum frequency of 95% compliance on a 30-day rolling average.

- g. The permittee shall conduct calibration and zero-span checks of the O<sub>2</sub> monitor when the cells are replaced and every four weeks following installation per the manufacturer's recommended calibration procedures.
- h. Within 14 days prior to the kiln performance stack tests, a kiln gas sample from the O<sub>2</sub> monitor shall be split and analyzed by a certified, third-party O<sub>2</sub> analyzer. The relative accuracy (RA) of the O<sub>2</sub> monitor shall be determined by this split sample and the RA estimation method in 40 CFR 60, Appendix B, Performance Draft Specification 2. The RA of the O<sub>2</sub> monitor shall be no greater than 20%. Results of the RA calculation shall be included with the performance test report.
- i. Monitor up-time, monitor calibration checks, the %O<sub>2</sub> rolling 30-day average values, and any deviations from the rolling 30-day O<sub>2</sub> limit shall be recorded daily, kept on-site, and made available to Department personnel upon request. A report including the total monitor up-time, kiln operating time, 30-day rolling average %O<sub>2</sub> values, and percent compliance shall be submitted to the Department in accordance with General Provision #7.

## CO

- 143. The permittee shall test source SN-24Q for carbon monoxide using EPA Reference Method 10. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat this test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed May 15, 2013. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]
- 144. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #109 for source SN-24Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Reg.19.703, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
  - a. The permittee shall operate the kiln at all times, except during startup, shutdown, and malfunction, such that the 30-day rolling average kiln gas percent oxygen (%O<sub>2</sub>) content (measured at the oxygen monitor) is not less than 0.60%.
  - b. The permittee shall use the oxygen monitor required by Specific Condition #142a to demonstrate compliance with the minimum %O<sub>2</sub> kiln gas limit established by Specific Condition #144a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #142e through #142i.
  - c. The permittee shall measure at least four, evenly spaced %O<sub>2</sub> values every hour that the kiln is in operation and use the hourly data to develop a 24-hour average for each day. Each daily average shall be used to determine the actual rolling 30-day average for comparison to the limit established by Specific Condition #144a.

SN-25Q  
 #2 Lime Discharge (Nuisance Dust Collector)

Source Description

After the limestone has been calcined in the #2 Rotary Lime Kiln, it is sent to the #2 Lime Product Cooler. Emissions from this source are controlled through the use of a dust collector.

This source is subject to PSD and CAM for particulate emissions. Daily opacity observations are the method used to demonstrate CAM.

The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

145. 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 #148 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
25Q	PM <sub>10</sub>	0.3	1.2
	PM	0.3	1.2

146. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
25Q	5%	Reg.18.501, Reg.19.901 <i>et seq.</i> , Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8- 4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

147. The permittee shall conduct daily observations of the opacity from source SN-25Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501, 40 C.F.R. § 64, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
148. Particulate matter emissions from source SN-25Q shall not exceed 0.015 grains per dry standard cubic foot of air. Compliance with this condition is demonstrated by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]



SN-26Q  
 #1 and #2 Coal/Coke Bin Vents

Source Description

The Coal Bin Vents were last modified in 2004.

This source is subject to PSD. The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

149. 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 #152 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
26Q	PM <sub>10</sub>	0.3	1.2
	PM	0.3	1.2

150. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
26Q	5%	Reg.18.501, Reg.19.901 <i>et seq.</i> , Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

151. The permittee shall conduct weekly observations of the opacity from sources SN-26Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
152. Particulate matter emissions from source SN-26Q shall not exceed 0.015 grains per dry standard cubic foot of air. Compliance with this condition will be demonstrated by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN-27Q  
 Kiln Feed Belt into #2 Kiln Surge Bin

Source Description

SN-27Q was installed in 2003.

This source is subject to 40 C.F.R. § 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants, 40 C.F.R. § 63, Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	10% Opacity	Water Spray Upstream and Surge Bin Vacuum

Specific Conditions

153. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through physical limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
27Q	PM	0.1	0.1
	PM <sub>10</sub>	0.1	0.1

154. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
27Q	10%	Reg.18.501, Reg.19.304, Reg.19.901 <i>et seq.</i> 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

155. The permittee shall conduct weekly observations of the opacity from source SN-27Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
156. Source SN-27Q is subject to 40 C.F.R. § 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions #154 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
157. Source SN-27Q is subject to the provisions of 40 C.F.R. § 63, Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #154 and #158 and Plantwide Conditions #13 through #15. [40 C.F.R. § 63.7080 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
158. Source SN-27Q has been defined as a new processed stone handling (PSH) operation because construction or reconstruction began after December 20, 2002. [Reg.19.304 and 40 C.F.R. § 63.7082(c)]

SN-28Q  
#1 and #2 Coal/Coke Transfer Points

Source Description

Source SN-28Q, which was subject to PSD review for the Kiln 2 permit (R2 permit), is the emissions from the transfer of coal/coke from the Incline Belt into the diverter chute leading to the #1 and #2 Fuel Bins (also called the Coal/Coke Bins).

Compliance with these emission rates are demonstrated through the limit on the amount of coal and coke that the permittee is allowed to fire in the rotary lime kilns. The Department recognizes that source SN-28Q handles some of the coal and coke more than one time. However, since the permittee will not be buying significantly more coal and coke than will be burned in the lime kilns, no additional record keeping will be required for source SN-28Q.

Due to the additional coal being handled, the coal/coke preparation plant is subject to the requirements of 40 C.F.R. § 60 Subpart Y - Standards of Performance for Coal Preparation Plants. This source is also subject to PSD.

The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	20% Opacity	Non-Point Source

Specific Conditions

159. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
28Q	PM	0.1	0.1
	PM <sub>10</sub>	0.1	0.1

160. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
28Q	20%	Reg.19.304, Reg.19.503, and Reg.19.901, 40 C.F.R. § 60.252(c), and 40 C.F.R. § 52 Subpart E

161. The permittee shall conduct weekly observations of the opacity from source SN-28Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
162. Source SN-28Q is subject to the applicable provisions of 40 C.F.R. § 60, Subpart Y - Standards of Performance for Coal Preparation Plants due to the size of the coal preparation plant and its date of installation. A copy of Subpart Y has been included in Appendix A of this permit. The applicable provisions of this subpart include, but are not necessarily limited to, the items contained in Specific Conditions #160, #163, and #164. [40 C.F.R. § 60.250(a) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
163. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). [Reg.19.304 and 40 C.F.R. § 60.254(a)]
164. The owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11. [Reg.19.304 and 40 C.F.R. § 60.254(b)(2)]

SN-30Q  
 Rotary Lime Kiln 3

Source Description

The fuels for this kiln are a blend of coal and coke with natural gas. The permittee may use 100% natural gas when it is necessary to produce a low sulfur lime product. Particulate matter emissions are controlled through the use of a baghouse. Sulfur dioxide emissions are controlled through dry scrubbing which occurs naturally in the lime kiln and at the filter cake on the baghouse. No other control equipment is associated with this lime kiln.

This source is subject to 40 C.F.R. § 60 Subpart HH - Standards of Performance for Lime Manufacturing Plants, 40 C.F.R. § 63 Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, PSD, and CAM.

The following table lists the BACT Limits and Determinations for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.10 lb/ton of Stone Feed 15% Opacity	Baghouse-type Dust Collector type Dust Collector
SO <sub>2</sub>	4% by Weight Sulfur in Fuel on a Daily Basis and 3% by Weight Sulfur in Fuel on a 30-Day Rolling Average	Natural Dry Scrubbing In Kiln and Baghouse
CO	3.0 lb of CO per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation
NO <sub>x</sub>	3.5 lb NO <sub>x</sub> per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation

Specific Conditions

165. 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 #169, #170, #172, #176, #187, #195, #198, and #202 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
30Q	PM <sub>10</sub>	16.7	66.2
	PM	5.8	22.9

SN	Pollutant	lb/hr	tpy
	SO <sub>2</sub>	44.8	141.7
	CO	85.9	342.2
	NO <sub>x</sub>	100.2	399.3

166. 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 #169, #170, #172, and #200 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
30Q	VOC	3.4	14.2

167. 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 #170 and #172 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
30Q	HCl	8.00	31.88

168. All required tests shall be conducted while firing coal and/or coke. All required tests shall also be conducted in accordance with Plantwide Condition #3. [Reg.19.702 and Reg.19.901 *et seq.*, and 40 C.F.R. § 52 Subpart E]
169. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
170. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Coal and/or Coke per consecutive 12 month period
30Q	47,254



171. The permittee shall maintain records of the amount of coal and coke fired in the lime kiln in order to demonstrate compliance with Specific Condition #170 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq*, and 40 C.F.R. § 52 Subpart E]
172. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Lime per day
30Q	687.0

173. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Lime per Year
30Q	228,125

174. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #172 and #173, which may be used by the Department for enforcement purposes. These records shall be updated daily, kept on site, and made available to Department personnel upon request. An annual total and each month's individual data shall be submitted to the Department in accordance with General Provision 7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
175. The permittee shall obtain a manufacturer's certification of the ash mineral analysis of the coal in order to demonstrate that any possible emissions of Hazardous Air Pollutants (HAPs) are below the de minimis levels. A new certification shall be obtained each time that coal is obtained from a different mine. This certification shall be kept on site and shall be made available to Department personnel upon request. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

*PM/PM<sub>10</sub> & Opacity Conditions*

176. Particulate matter emissions from source SN-30Q shall not exceed 0.10 lb/ton of stone feed. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
177. The permittee shall test SN-30Q for particulate matter using EPA Reference Method 5 every five years in order to demonstrate compliance with the pound per hour emission limit set forth in Specific Condition #165 and the pound per ton limit set forth in Specific Condition #176. The permittee shall also conduct test for condensable particulate emissions concurrently using EPA reference Method 202 and include these results in PM<sub>10</sub> value for compliance with emission rates. This test shall occur by June 30 of the testing year. The most recent test was performed May 14, 2013. All tests shall take place in accordance with the plantwide conditions of this permit. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NSPS HH*

178. Source SN-30Q is subject to the provisions of 40 C.F.R. § 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants. A copy of Subpart HH has been included in Appendix B of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #179 through #183. [40 C.F.R. § 60.340(a) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
179. Visible emissions may not exceed the limits specified in the following table. Compliance with the opacity limits shall be demonstrated through compliance with Specific Condition #180. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Limit	Regulatory Citation
30Q	15%	Reg.18.501, Reg.19.304, Reg.19.901 <i>et seq.</i> 40 C.F.R. § §60.342(a)(2), 40 C.F.R. § 63.7080 Table 2, Item 1, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4- 304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

180. The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40 percent opacity. [Reg.19.304, Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 60.343(a), 40 C.F.R. § 63.7113(g), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
181. For the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the affected rotary lime kiln. The measuring device used must be accurate to within + or - 5 percent of the mass rate over its operating range. The permittee shall continue to maintain and operate this device after the initial performance test has been completed. [Reg.19.304, Reg.19.703, 40 C.F.R. § 52 Subpart E, 40 CFR §60.343(d), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
182. For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent. [Reg.19.304 and 40 C.F.R. § 60.343(e)]
183. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). [Reg.19.304, Reg.19.702, 40 C.F.R. § 52 Subpart E, and 40 C.F.R. § 60.344(a)]

*MACT AAAAA*

184. Source SN-30Q is subject to the provisions of 40 C.F.R. § 63 Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #179, #185 through #194 and Plantwide Conditions #13 through #15. [40 C.F.R. § 63.7080 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
185. Source SN-30Q has been defined as a new lime kiln because construction or reconstruction began after December 20, 2002. [Reg.19.304 and 40 C.F.R. § 63.7082(b)]
186. Particulate emissions from SN-30Q shall not exceed 0.10 lbs per ton of stone fed. [Reg.19.304 and 40 C.F.R. § 63.7080 Table 1, Item 3]

187. The owner or operator shall determine compliance with the particulate matter standards in Specific Condition #186 as follows: [Reg.19.304 and 40 C.F.R. § 63.7080 Table 3, Item 1]

- a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (Cs \text{ Qsd})/PK$$

where:

E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed  
Cs = concentration of particulate matter, g/dscm (g/dscf)  
Qsd = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)  
P = stone feed rate, Mg/hr (ton/hr)  
K = conversion factor, 1000 g/kg (453.6g/lb)

- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
- c. The monitoring device of Specific Condition #181 shall be used to determine the stone feed rate (P) for each run.
- d. The permittee shall conduct the performance test of #187 a, b, and c every five years following the initial performance test.
188. The permittee shall maintain a fabric filter on SN-30Q such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [Reg.19.304 and 40 C.F.R. § 63.7080 Table 2, Item 1]
189. For Rotary Lime Kiln 3 (SN-30Q), the permittee must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Item 6 of Table 2 to this subpart and record the results of each inspection. [Reg.19.304 and 40 C.F.R. § 63.7113(f)]

190. For each COMS used to monitor an add-on air pollution control device, the permittee must meet the following requirements: [Reg.19.304 and 40 C.F.R. § 63.7113(g)]
1. Install the COMS at the outlet of the control device.
  2. Install, maintain, calibrate, and operate the COMS as required by 40 C.F.R. § 63 Subpart A, General Provisions and according to Performance Specification – 1 of Appendix B to Part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
191. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 5, Item 4(a)(ii)]
192. The permittee shall implement the written Operations, Maintenance, and Monitoring (OM&M) plan submitted with this permit application. Any subsequent changes to the plan must be submitted for review and approval. [Reg.19.304 and 40 C.F.R. § 63.7100(d)]
193. Rotary Lime Kiln 3 (SN-30Q) must vent captured emissions through a closed system. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 2, Item 6a]
194. Rotary Lime Kiln 3 (SN-30Q) must operate each capture/collection system according to procedures in the OM&M plan. [Reg.19.304 and 40 C.F.R. § 63.7180 Table 2, Item 6b]

$SO_2$

195. The sulfur content of the fuel mix used to fire the kiln shall not exceed 4% by weight on a daily basis as fired in the kiln and shall not exceed 3% on a rolling 30-day average. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
196. The permittee shall obtain manufacturer's certification of the sulfur content of each shipment of the coal/coke mix or conduct tests of each shipment of fuel to determine the sulfur content and shall perform any necessary calculations in order to demonstrate compliance with Specific Condition #195 and which may be used by the Department for enforcement purposes. These records shall be updated daily, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NO<sub>x</sub>*

197. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
198. The permittee shall test source SN-30Q for oxides of nitrogen using EPA Reference Method 7E. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat this test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed May 14, 2013. [Reg.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
199. The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions limit in Specific Condition #197 for source SN-30Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Reg.19.703 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
  - a. The permittee shall install, calibrate, maintain, and operate a continuous oxygen monitor in the exhaust end, but before the preheater, of source SN-30Q. The permittee shall operate the oxygen monitor in accordance with the QA/QC practices listed in Specific Conditions #199e through #199h.
  - b. The permittee shall operate the kiln at all times, except during startup, shutdown, and malfunction, such that the 30-day rolling average kiln gas percent oxygen (%O<sub>2</sub>) content (measured at the oxygen monitor) is less than or equal to 0.93%.
  - c. The permittee shall use this oxygen monitor to demonstrate compliance with the maximum %O<sub>2</sub> kiln gas limit established by the testing required by Specific Condition #198. The permittee shall use the data from the continuous oxygen monitor (to predict the NO<sub>x</sub> emission rate), along with lime production records, to demonstrate compliance with Specific Condition #197.
  - d. The permittee shall measure at least four, evenly spaced %O<sub>2</sub> values every hour that the kiln is in operation and use the hourly data to develop a 24-hour average for each day. Each daily average shall be used to determine the actual rolling 30-day average for comparison to the limit established by Specific Condition #199b
  - e. The oxygen monitor shall meet a minimum frequency of monitor operation of 95% up-time.
  - f. Source SN-30Q shall comply with the limit in Specific Condition #199b by meeting a minimum frequency of 95% compliance on a 30-day rolling average.

- g. The permittee shall conduct calibration and zero-span checks of the O<sub>2</sub> monitor when the cells are replaced and every four weeks following installation per the manufacturer's recommended calibration procedures.
- h. Within 14 days prior to the kiln performance stack tests, a kiln gas sample from the O<sub>2</sub> monitor shall be split and analyzed by a certified, third-party O<sub>2</sub> analyzer. The relative accuracy (RA) of the O<sub>2</sub> monitor shall be determined by this split sample and the RA estimation method in 40 CFR 60, Appendix B, Performance Draft Specification 2. The RA of the O<sub>2</sub> monitor shall be no greater than 20%. Results of the RA calculation shall be included with the performance test report.
- i. Monitor up-time, monitor calibration checks, the %O<sub>2</sub> rolling 30-day average values, and any deviations from the rolling 30-day O<sub>2</sub> limit shall be recorded daily, kept on-site, and made available to Department personnel upon request. A report including the total monitor up-time, kiln operating time, 30-day rolling average %O<sub>2</sub> values, and percent compliance shall be submitted to the Department in accordance with General Provision #7.

#### VOC

- 200. The permittee shall test the rotary lime kiln for volatile organic compounds using EPA Reference Method 25A within 60 days of achieving maximum production but no later than 180 days after initial start-up. Using the results of this test, the permittee shall correlate the VOC emissions to the solid fuel usage rate. This requirement has been satisfied as a condition of Air Permit 0045-AOP-R3. Continued compliance with the VOC emission rates will be demonstrated through the coal and coke usage limits. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]

#### CO

- 201. Emissions of CO shall not exceed 3.0 lbs per ton of lime produced on a 30-day rolling average. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- 202. The permittee shall test source SN-30Q for carbon monoxide using EPA Reference Method 10. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat the test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed May 14, 2013. [Reg.19.702 and 40 C.F.R. § 52 Subpart E]

203. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #201 for source SN-30Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Reg.19.703, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
- a. The permittee shall operate the kiln at all times, except during startup, shutdown, and malfunction, such that the 30-day rolling average kiln gas percent oxygen (%O<sub>2</sub>) content (measured at the oxygen monitor) is not less than 0.60%.
  - b. The permittee shall use the oxygen monitor required by Specific Condition #199a to demonstrate compliance with the minimum %O<sub>2</sub> kiln gas limit established by Specific Condition #203a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #199e through #199i.
  - c. The permittee shall measure at least four, evenly spaced %O<sub>2</sub> values every hour that the kiln is in operation and use the hourly data to develop a 24-hour average for each day. Each daily average shall be used to determine the actual rolling 30-day average for comparison to the limit established by Specific Condition #203a.



SN-31Q  
 Transfer Points to Extended RKFS Pile

Source Description

Source SN-31Q is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants and PSD.

The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	20% Opacity	Water Sprays (upstream)

Specific Conditions

204. 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 #207 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
31Q	PM	0.7	1.9
	PM <sub>10</sub>	0.4	0.9

205. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
31Q	20%	Reg.19.304, Reg.19.503, and Reg.19.901 <i>et seq.</i> , 40 C.F.R. § 60.252(c), and 40 C.F.R. § 52 Subpart E

206. The permittee shall conduct weekly observations of the opacity from sources SN-31Q, and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]
207. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Limestone per consecutive 12 month period
31Q	1,100,000

208. The permittee shall maintain records of the limestone throughput at source SN-31Q in order to demonstrate compliance with Specific Condition #207 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
209. Source SN-31Q is subject to 40 C.F.R. § 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #205 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-32Q  
 #3 Lime Discharge (Nuisance Dust Collector)

Source Description

After the limestone has been calcined in the #3 Rotary Lime Kiln, it is sent to the #3 Lime Product Cooler. Emissions from this source are controlled through the use of a dust collector.

This source is subject to PSD and CAM for particulate emissions. Daily opacity observations are the method used to demonstrate CAM.

The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.010 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

210. 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 #213 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
32Q	PM	0.3	1.2
	PM <sub>10</sub>	0.3	1.2

211. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
32Q	5%	Reg.18.501, Reg.19.304, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

212. The permittee shall conduct daily observations of the opacity from source SN-32Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501, 40 C.F.R. § 64, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
213. Particulate matter emissions from source SN-32Q shall not exceed 0.010 grains per dry standard cubic foot of air. Compliance with this condition will be demonstrated by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN-33Q  
 #3 Coal/Coke Bin Vent

Source Description

This source will be installed after permit issuance.

This source is subject to PSD. The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

214. 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 #217 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
33Q	PM	0.2	0.6
	PM <sub>10</sub>	0.2	0.6

215. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
33Q	5%	Reg.18.501, Reg.19.304, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4- 304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

216. The permittee shall conduct weekly observations of the opacity from sources SN-33Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
217. Particulate matter emissions from source SN-33Q shall not exceed 0.015 grains per dry standard cubic foot of air. Compliance with this condition will be demonstrated by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN-34Q  
 #3 Coal/Coke Transfer Point

Source Description

The #3 Coal Transfer Point is subject to PSD. The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	20% Opacity	Non-Point Source

Specific Conditions

218. 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 #170 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
34Q	PM	0.1	0.1
	PM <sub>10</sub>	0.1	0.1

219. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
34Q	20%	Reg.19.304, Reg.19.503, and Reg.19.901 <i>et seq.</i> , 40 C.F.R. § 60.252(c), and 40 C.F.R. § 52 Subpart E

220. The permittee shall conduct weekly observations of the opacity from sources SN-34Q, and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.19.503 and 40 C.F.R. § 52 Subpart E]

SN-35Q  
 Kiln Feed Belt into No. 3 Kiln Surge Bin

Source Description

Source SN-35 is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants, 40 C.F.R. § 63 Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

The following table lists the BACT Limit and Determination for this source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	10% Opacity	Water Sprays (upstream)

Specific Conditions

221. 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 #224 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
35Q	PM	0.1	0.2
	PM <sub>10</sub>	0.1	0.1

222. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
35Q	10%	Reg.18.501, Reg.19.304, and Reg.19.901 <i>et seq.</i> , 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E



223. The permittee shall conduct weekly observations of the opacity from source SN-35Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
224. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.19.705 and Reg.19.901 *et seq.*, 40 C.F.R. § 52 Subpart E, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Limestone per consecutive 12 month period
35Q	450,000

225. The permittee shall maintain records of the limestone throughput at source SN-35Q in order to demonstrate compliance with Specific Condition #224 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.19.705 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
226. Source SN-35Q is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants upon replacement. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #222 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
227. Source SN-35Q is subject to the provisions of 40 C.F.R. § 63 Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #222 and #228 and Plantwide Conditions #13 through #15. [40 C.F.R. § 63.7080 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
228. Source SN-35Q has been defined as a new processed stone handling (PSH) operation because construction or reconstruction began after December 20, 2002. [Reg.19.304 and 40 C.F.R. § 63.7082(c)]

SN-36Q & SN-37Q  
 Lime Storage Silo Dust Collectors

Source Description

The Lime Storage Silo Dust Collectors are subject to PSD. The following table lists the BACT Limit and Determination for each source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

229. 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 #232 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
36Q	PM	0.9	4.0
	PM <sub>10</sub>	0.9	4.0
37Q	PM	0.9	4.0
	PM <sub>10</sub>	0.9	4.0

230. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
36Q and 37Q	5%	Reg.18.501, Reg.19.901 <i>et seq.</i> , Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

231. The permittee shall conduct weekly observations of the opacity from sources SN-36Q and SN-37Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
232. Particulate matter emissions from source SN-36Q and SN-37Q shall not exceed 0.015 grains per dry standard cubic foot of air for each source. Compliance with this condition will be demonstrated by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN-38Q & SN-39Q  
 Lime Loadout Dust Collector

Source Description

The Lime Loadout Dust Collectors are subject to PSD. The following table lists the BACT Limit and Determination for each source:

Pollutant	BACT Limit	BACT Determination
TSP and PM <sub>10</sub>	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

233. 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 #236 and equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
38Q	PM	0.2	0.8
	PM <sub>10</sub>	0.2	0.8
39Q	PM	0.2	0.8
	PM <sub>10</sub>	0.2	0.8

234. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
38Q and 39Q	5%	Reg.18.501, Reg.19.901 <i>et seq.</i> , Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

235. The permittee shall conduct weekly observations of the opacity from sources SN-38Q and SN-39Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
236. Particulate matter emissions from source SN-38Q and SN-39Q shall not exceed 0.015 grains per dry standard cubic foot of air for each source. Compliance with this condition will be demonstrated by equipment limitations. [Reg.19.501 *et seq.* and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

SN-40Q  
LKD Truck Loading

Source Description

This source is where trucks are loaded for transfer to the quarry pile.

Specific Conditions

237. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
40Q	PM <sub>10</sub>	1.0	1.4

238. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
40Q	PM	2.0	3.0

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

SN-41Q  
LKD Truck Dumping

Source Description

Source SN-41Q is the site where trucks from SN-40Q are dumped into a quarry pile.

Specific Conditions

239. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
41Q	PM <sub>10</sub>	1.0	1.4

240. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	Pollutant	lb/hr	tpy
41Q	PM	2.0	3.0

SN-43Q  
Emergency Generator  
Diesel Fuel, 382hp

Source Description

The emergency generator is a 382-hp, Tier 3 EPA-certified compression-ignition engine. The engine's requirements under 40 C.F.R. § 63 Subpart ZZZZ are met by complying with its requirements under 40 C.F.R. § 60 Subpart IIII. The engine was manufactured and installed in 2019, replacing an engine manufactured in 2000.

Specific Conditions

241. The permittee shall not exceed the emission rates set forth in the following table. The pounds per hour rates are based on maximum capacity. The tons per year limit shall be demonstrated by compliance with Specific Conditions #247 through #255 and by burning only diesel fuel. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
43Q	PM <sub>10</sub>	0.1	0.1
	SO <sub>2</sub>	0.1	0.1
	VOC	0.1	0.1
	CO	0.7	0.2
	NO <sub>x</sub>	2.9	0.8

242. The permittee shall not exceed the emission rates set forth in the following table. The pounds per hour rates are based on maximum capacity. The tons per year limit shall be demonstrated by compliance with Specific Conditions #247 through #255 and by burning only diesel fuel. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
43Q	PM	0.1	0.1
	Total HAPs	0.02	0.01



243. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
43Q	20%	Reg.18.501

244. The permittee shall conduct annual observations of the opacity from source SN-43Q during periods of operation and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
245. The permittee shall not operate the emergency generator SN-43Q in excess of 500 hours (emergency and non-emergency) per calendar year in order to demonstrate compliance with the annual emission rate limits. Emergency operation in excess of these hours may be allowable but shall be reported and will be evaluated in accordance with Reg.19.602 and other applicable regulations. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
246. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #245. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The calendar year totals and each individual month's data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

NESHAP 40 C.F.R. § 60 Subpart IIII

247. SN-43Q is subject to 40 C.F.R. § 60 Subpart IIII. The permittee shall comply with all applicable provisions of 40 C.F.R. § 60 Subpart IIII which includes, but is not limited to, Interim Specific Conditions #248 through #255. [Reg.19.304 and 40 C.F.R. § 60 Subpart IIII]
248. The provisions of 40 C.F.R. Part 60 Subpart IIII are applicable to owners and operators of stationary compression ignition (CI) internal combustion engines (ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines. For the purposes of 40 C.F.R. Part 60

Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator. [Reg.19.304 and 40 C.F.R. §60.4200(a)(2)(i)]

249. Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [Reg.19.304 and 40 C.F.R. §60.4205(b)]
250. Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [Reg.19.304 and 40 C.F.R. §60.4207(b)]
251. After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines. [Reg.19.304 and 40 C.F.R. §60.4208(a)]
252. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine. [Reg.19.304 and 40 C.F.R. §60.4209(a)]
253. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:
  - a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
  - b. Change only those emission-related settings that are permitted by the manufacturer; and
  - c. Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [Reg.19.304 and 40 C.F.R. §60.4211(a)]
254. If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section. [Reg.19.304 and 40 C.F.R. §60.4211(c)]

255. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- a. There is no time limit on the use of emergency stationary ICE in emergency situations.
  - b. You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
    - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
    - ii. Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
    - iii. Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
  - c. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

- iv. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  - 1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
  - 2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  - 3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  - 4. The power is provided only to the facility itself or to support the local transmission and distribution system.
  - 5. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.  
[Reg.19.304 and 40 C.F.R. §60.4211(f)]

NESHAP 40 C.F.R. § 63 Subpart ZZZZ

256. Source SN-43Q is subject to the provisions of 40 C.F.R. § 63 Subpart ZZZZ – National Emissions Standards for Stationary Reciprocating Internal Combustion Engines. The engine will meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. § 60 Subpart IIII. [40 C.F.R. § 63.6590(c)(1) and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-46Q  
Portable Trommel Screen Operations

A portable trommel screen (SN-46Q) and associated equipment will be used to screen overburden from the quarry for useable limestone rock. The equipment is periodically moved around the site to process the various overburden piles.

The portable trommel screen operations consist of the Trommel Screen (SN-46Q), and the following support equipment:

- A front end loader to feeder;
- A front end loader to truck; and
- Two conveyor transfer points.

Even though these four additional sources are not explicitly listed in the permit, the emissions from these sources are accounted for in SN-46Q.

The trommel screen and belt conveyor are subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.

257. 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 #5 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
46Q	PM <sub>10</sub>	0.5	2.1

258. 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 #5 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
46Q	PM	1.4	6.1

259. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
46Q	7%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

260. The permittee shall conduct weekly observations of the opacity from sources associated with SN-46Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
261. The permittee shall install and operate water sprays on SN-46Q if it is determined during the initial startup of the equipment that water sprays are necessary to control the opacity of visible emissions to a maximum of 7% (the NSPS Subpart OOO limit). If water sprays are installed, they shall be used whenever the feed material moisture is not sufficient to adequately control the opacity of the visible emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and/or Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-31]
262. Source SN-46Q is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO can be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #259 and Specific Conditions #263 through #274. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
263. Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of 40 C.F.R. § 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of 40 C.F.R. § 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. [Reg.19.304 and 40 C.F.R. § 60.672(b)]

264. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b). [Reg.19.304 and 40 C.F.R. § 60.674(b)]
265. If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays. [Reg.19.304 and 40 C.F.R. § 60.674(b)(2)]
266. Method 9 of Appendix A-4 of 40 C.F.R. § 60 and the procedures in §60.11 shall be used to determine opacity. [Reg.19.304 and 40 C.F.R. § 60.675(b)(2)]
267. In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of 40 C.F.R. § 60 and the procedures in §60.11, with the following additions:
- a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
  - b. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 C.F.R. § 60, Section 2.1) must be followed.
  - c. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- [Reg.19.304 and 40 C.F.R. § 60.675(c)(1)]
268. When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of 40 C.F.R. § 60 Subpart OOO, the duration of the Method 9 (40 C.F.R. § 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 C.F.R. § 60 Subpart OOO must be based on the average of the five 6-minute averages. [Reg.19.304 and 40 C.F.R. § 60.675(c)(3)]

269. For performance tests involving only Method 9 (40 C.F.R. § 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification. [Reg.19.304 and 40 C.F.R. § 60.675(g)]
270. Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request. [Reg.19.304 and 40 C.F.R. § 60.676(b)(1)]
271. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of 40 C.F.R. § 60 Subpart OOO, including reports of opacity observations made using Method 9 (40 C.F.R. § 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). [Reg.19.304 and 40 C.F.R. § 60.676(f)]
272. The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under 40 C.F.R. § 60 Subpart OOO. [Reg.19.304 and 40 C.F.R. § 60.676(h)]
273. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. [Reg.19.304 and 40 C.F.R. § 60.676(i)]
274. Notifications and reports required under 40 C.F.R. § 60 Subpart OOO and under Subpart A of 40 C.F.R. § 60 to demonstrate compliance with 40 C.F.R. § 60 Subpart OOO need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b). [Reg.19.304 and 40 C.F.R. § 60.676(k)]

Table 1 to Subpart OOO of 40 C.F.R. § 60 - Exceptions to Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Explanation
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).



Subpart A reference	Applies to Subpart OOO	Explanation
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 C.F.R. § 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 C.F.R. § 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675(c)), Method 9 (40 C.F.R. § 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

Table 3 to Subpart OOO of 40 C.F.R. § 60 - Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	An initial performance test according to §60.11 of 40 C.F.R. § 60 and §60.675 of 40 C.F.R. § 60 Subpart OOO; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b);

SN-47Qa and 47Qb  
Storage Bins #1, 2, and 5

Source Description

This source consists of three storage bins located near the building containing the sorting machines. Storage Bins #1 and #2 (SN-47Qa) are fed by a surge pile after SN-03Qa. Storage Bin #5 (SN-47Qb) is fed by selected material from the Sorting Machines (Insignificant Activity).

This source is subject to the provisions of 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Non-Metallic Mineral Processing Plants. Water sprays are the only controls associated with this source.

Specific Conditions

275. 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 #279 and #281 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

Source	Pollutant	lb/hr	tpy
SN-47Qa	PM <sub>10</sub>	0.1	0.1
SN-47Qb	PM <sub>10</sub>	0.1	0.1

276. 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 #279 and #281 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
SN-47Qa	PM	0.1	0.2
SN-47Qb	PM	0.1	0.1

277. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
47Qa and 47Qb	7%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

278. The permittee shall conduct weekly observations of the opacity from sources SN-47Qa and SN-47Qb and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
279. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Limestone per consecutive 12 month period
47Qa	1,672,611
47Qb	250,892

280. The permittee shall maintain records of the amount of limestone processed at SN-47Qa and SN-47Qb in order to demonstrate compliance with Specific Condition #279 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
281. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from sources SN-47Qa and SN-47Qb. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient

temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

282. Sources SN-47Qa and SN-47Qb are subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #277 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
283. Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of 40 C.F.R. § 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of 40 C.F.R. § 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. [Reg.19.304 and 40 C.F.R. § 60.672(b)]
284. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b). [Reg.19.304 and 40 C.F.R. § 60.674(b)]
285. If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of §60.674(b):
- a. The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and § 60.676(b), and
  - b. The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and § 60.675 of this subpart.

[Reg.19.304 and 40 C.F.R. § 60.674(b)(1)]

286. If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays. [Reg.19.304 and 40 C.F.R. § 60.674(b)(2)]
287. In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of 40 C.F.R. § 60 and the procedures in §60.11, with the following additions:
- a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
  - b. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 C.F.R. § 60, Section 2.1) must be followed.
  - c. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- [Reg.19.304 and 40 C.F.R. § 60.675(c)(1)]
288. When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of 40 C.F.R. § 60 Subpart OOO, the duration of the Method 9 (40 C.F.R. § 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 C.F.R. § 60 Subpart OOO must be based on the average of the five 6-minute averages. [Reg.19.304 and 40 C.F.R. § 60.675(c)(3)]
289. For performance tests involving only Method 9 (40 C.F.R. § 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification. [Reg.19.304 and 40 C.F.R. § 60.675(g)]
290. Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request. [Reg.19.304 and 40 C.F.R. § 60.676(b)(1)]

291. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of 40 C.F.R. § 60 Subpart OOO, including reports of opacity observations made using Method 9 (40 C.F.R. § 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). [Reg.19.304 and 40 C.F.R. § 60.676(f)]
292. The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under 40 C.F.R. § 60 Subpart OOO. [Reg.19.304 and 40 C.F.R. § 60.676(h)]
293. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. [Reg.19.304 and 40 C.F.R. § 60.676(i)]
294. Notifications and reports required under 40 C.F.R. § 60 Subpart OOO and under Subpart A of 40 C.F.R. § 60 to demonstrate compliance with 40 C.F.R. § 60 Subpart OOO need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b). [Reg.19.304 and 40 C.F.R. § 60.676(k)]

#### Prevention of Significant Deterioration Conditions

295. The following provisions of 40 CFR 52.21(r)(6) apply to the Beneficiation project submitted in the modification application dated April 1, 2019. [Regulation 19 §19.304 and 40 CFR 52.21(r)(6)]
  - a. The permittee shall document and maintain a record of the following information regarding the Beneficiation project: [Regulation 19 §19.304 and 40 CFR 52.21(r)(6)(i)]
    - i. A description of the project;
    - ii. Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
    - iii. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph (b)(41)(ii)(c) of 40 CFR 52.21 and an explanation for why such amount was excluded.

- b. The permittee shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in paragraph (r)(6)(i)(b) of 40 CFR 52.21; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 10 years following resumption of regular operations after the change.  
[Regulation 19 §19.304 and 40 CFR 52.21(r)(6)(iii)]
- c. The permittee shall submit a report to the Administrator if the annual emissions, in tons per year, from the project, exceed the baseline actual emissions (as documented and maintained pursuant to Specific Condition #295 (a)(iii)), by a significant amount (as defined in paragraph (b)(23) of this section) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to Specific Condition #295 (a)(iii). Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:
  - i. The name, address and telephone number of the major stationary source;
  - ii. The annual emissions as calculated pursuant to paragraph (r)(6)(iii) of this section; and
  - iii. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).  
[Regulation 19 §19.304 and 40 CFR 52.21(r)(6)(v)]
- d. For a project for which a reasonable possibility occurs only within the meaning of paragraph (d)(i) of this condition, and not also within the meaning of paragraph (d)(ii) of this condition, then paragraphs (b) and (c) of this condition do not apply to the project. A “reasonable possibility” under paragraph (e) of this condition occurs when the owner or operator calculates the project to result in either:
  - i. A projected actual emissions increase of at least 50 percent of the amount that is a “significant emissions increase,” as defined under paragraph (b)(40) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant; or
  - ii. A projected actual emissions increase that, added to the amount of emissions excluded under paragraph (b)(41)(ii)(c) of this section, sums to at least 50 percent of the amount that is a “significant emissions increase,” as defined under paragraph (b)(40) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant.

[Regulation 19 §19.304 and 40 CFR 52.21(r)(6)(vi)]

Arkansas Lime Company

Permit #: 0045-AOP-R8

AFIN: 32-00014

- e. The permittee shall make the information required to be documented and maintained pursuant to paragraph (r)(6) of 40 CFR 52.21 available for review upon a request for inspection by the Administrator or the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of Chapter I. [Regulation 19 §19.304 and 40 CFR 52.21(r)(7)]

[Regulation 19 §19.304 and 40 CFR 52.21(r)(6)(v) and (vi) and (r)(7)]



SN-01P  
Limestone Drop Points

Source Description

Currently, this source consists of four conveyor transfer or drop points located at the PLS plant portion of this facility.

This source is subject to the provisions of 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Non-Metallic Mineral Processing Plants. Water sprays are the only controls associated with this source.

Specific Conditions

296. 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 #300 and #302 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
01P	PM <sub>10</sub>	0.3	0.7

297. 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 #300 and #302 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
01P	PM	0.6	1.5

298. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
01P	10%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

299. The permittee shall conduct weekly observations of the opacity from source SN-01P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
300. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Limestone per consecutive 12 month period
01P	432,000

301. The permittee shall maintain records of the amount of limestone processed at SN-01P in order to demonstrate compliance with Specific Condition #300 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
302. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-01P. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. Water spray operation shall not be required if the ambient temperature is below 40 degrees F. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
303. Source SN-01P is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #298 and Plantwide Conditions #7 through #12.

SN-12P, SN-13P, SN-14P, & SN-29P  
Hydrated Lime System

Source Description

Quicklime is reacted with water to form hydrated lime which is a soft powder. Emissions from sources SN-10 and SN-11 have been routed through the baghouse located at source SN-12. Previously, emissions from source SN-10 and SN-11 were controlled through the use of wet scrubbers.

The Hydrate Separator System Dust Collector (SN-12P) was installed in 1998. Source SN-12 is equipped with a natural gas fired heater.

The Hydrate Storage Tank Loadout (SN-13P) is a fabric filter type dust collector which controls emissions generated by the hydrate sales loadout. The Hydrated Lime Bagging Operations (SN-14P) is partial enclosed in order to controls emissions generated by the hydrate bagging operations. The Hydrate Storage Dust Collector (SN-29P) is a fabric filter type dust collector which controls emissions generated by the hydrate storage tank.

Source SN-12P is subject to CAM for particulate emissions. Daily opacity observations are the method used to demonstrate CAM.

Specific Conditions

304. 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 #308 and #311 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
12P	PM <sub>10</sub>	1.9	8.1
	SO <sub>2</sub>	0.1	0.1
	VOC	0.1	0.2
	CO	0.4	1.5
	NO <sub>x</sub>	0.4	1.8
13P	PM <sub>10</sub>	0.3	1.0
14P	PM <sub>10</sub>	0.2	0.6
29P	PM <sub>10</sub>	0.2	0.8

305. 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 #308 and #311 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
12P	PM	1.9	8.1
	Total HAPs	0.01	0.04
13P	PM	0.3	1.0
14P	PM	0.4	1.7
29P	PM	0.2	0.8

306. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
12P, 13P, 14P and 29P	5%	Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

307. The permittee shall conduct weekly observations of the opacity from sources SN-13P, SN-14P, and SN-29P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

308. The permittee shall conduct daily observations of the opacity from source SN-12P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501, 40 C.F.R. § 64, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
309. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Bagged Hydrated Lime per consecutive 12 month period
14P	35,040

310. The permittee shall maintain records of the amount of lime processed at SN-14P in order to demonstrate compliance with Specific Condition #309 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
311. Pipeline quality natural gas shall be the only fuel used to fire the heater located at source SN-12P. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-18P & SN-19P  
Stone and Roller Mill Plants #1 and #2

Source Description

The two roller mills are nearly identical. These systems rely on air circulation to remove the ground limestone from the mill and also rely on baghouses for the control of particulate matter emissions. The two roller mills are also both fired by natural gas.

Source SN-19P is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. Both sources SN-18P and SN-19P are subject to CAM for particulate emissions. Daily opacity observations are the method used to demonstrate CAM.

Specific Conditions

312. 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 #316 and equipment limitations. [Reg.19.501 *et seq.*9 and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
18P	PM <sub>10</sub>	2.6	11.4
	SO <sub>2</sub>	0.1	0.1
	VOC	0.1	0.2
	CO	0.6	2.3
	NO <sub>x</sub>	0.7	2.8
19P	PM <sub>10</sub>	1.8	7.7
	SO <sub>2</sub>	0.1	0.1
	VOC	0.1	0.2
	CO	0.5	1.9
	NO <sub>x</sub>	0.6	2.3

313. 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 #316 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
18P	PM	2.6	11.4
	Total HAPs	0.02	0.06
19P	PM	1.8	7.7
	Total HAPs	0.01	0.05

314. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
18P	5%	Reg.19.503 and 40 C.F.R. § 52 Subpart E
19P	5%	Reg.18.501, 40 C.F.R. § 60.672(c), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

315. The permittee shall conduct daily observations of the opacity from sources SN-18P and SN-19P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501, 40 C.F.R. § 64, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

316. The permittee shall use only pipeline quality natural gas to fire sources SN-18P and SN-19P. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
317. Source SN-19P is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants upon replacement. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #314 and Plantwide Conditions #7 through #12. [40 C.F.R. § 60.670 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]



SN-20P & SN-24P  
PLS Screening Operations and PLS Bagging Operations

Source Description

The PLS screening operations have been designated as source SN-20P. These operations take place inside a partially enclosed building which has flexible strips on the openings in order to reduce emissions. The PLS bagging operations have been designated as source SN-24P. These operations also take place inside a partially enclosed building.

Specific Conditions

318. 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 #322 and #324 and equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
20P	PM <sub>10</sub>	0.4	1.5
24P	PM <sub>10</sub>	0.2	0.6

319. 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 #322 and #324 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
20P	PM	1.4	6.0
24P	PM	0.4	1.7

320. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
20P	20%	Reg.19.503 and 40 C.F.R. § 52 Subpart E
24P	5%	Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

321. The permittee shall conduct weekly observations of the opacity from sources SN-20P and SN-24P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
322. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Source	Tons of Pulverized Limestone per consecutive 12 month period
20P	262,800
24P	35,040

323. The permittee shall maintain records of the amount of Pulverized Limestone (PLS) processed at SN-20P and SN-24P in order to demonstrate compliance with Specific Condition #322 and which may be used by the Department for enforcement purposes. These records shall be updated no later than the fifteenth day of the month following the month which the records represent, shall be kept on site, and shall be made available to Department personnel upon request. [Reg.18.1004, Reg.19.705, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
324. The permittee shall maintain flexible strips (canvas or plastic) at the building(s) partially enclosing source SN-20P. [Reg.19.705, 40 C.F.R. § 70.6, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

SN-26P  
Paved PLS/Lime Plant Roads

Source Descriptions

The plant roads were paved in 2002.

Specific Conditions

325. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
26P	PM <sub>10</sub>	1.5	3.1

326. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
26P	PM	7.3	15.9

SN-30P, SN-31P, SN-33P, & SN-34P  
Consolidated PLS Truck Loadouts and Railcar Drop-Outs

Source Description

Source SN-30P controls the emissions generated by the new consolidated PLS loadout bin vent. Source SN-31P controls the emissions generated by new consolidated PLS truck loadout and will vent back into the loadout bin. Source SN-33P controls the emissions generated by the consolidated PLS 140 railcar drop-out. Source SN-34P controls the emissions generated by the consolidated PLS 270 railcar drop-out.

These sources are subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. All of these sources use fabric-filter type dust collectors to control the emissions.

Specific Conditions

327. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
30P	PM <sub>10</sub>	0.4	1.5
31P	This source vents back into the loadout bin		
33P	PM <sub>10</sub>	0.2	0.8
34P	PM <sub>10</sub>	0.2	0.8

328. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
30P	PM	0.4	1.5
31P	This source vents back into the loadout bin		
33P	PM	0.2	0.8
34P	PM	0.2	0.8

329. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
30P	7%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(f), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8- 4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E
33P and 34P	10%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(b), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8- 4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E

330. The permittee shall conduct weekly observations of the opacity from sources SN-30P, SN-33P, and SN-34P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
331. Sources SN-30P, SN-33P, and SN-34P are subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #329 and Plantwide Conditions #7 through #12.

SN-35P  
Quicklime Fines Rail Unloading Pit

Source Description

Emissions are generated by the unloading of railcars containing lime.

Specific Conditions

332. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
35P	PM <sub>10</sub>	0.9	3.8

333. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
35P	PM	2.6	11.4

334. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
35P	20%	Reg.19.503 and 40 C.F.R. § 52 Subpart E

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

335. The permittee shall conduct weekly observations of the opacity from source SN-35P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-36P  
Modified PLS Products Loading Station

Source Description

The Modified PLS Products Loading Station includes a new classifier along with a new screw conveyor extension. Source SN-36P will be installed in the Roller Mill #2 system. This change is not related to the proposed Kiln 3 PSD project. This project is located in the “old Lime plant” portion of the facility and not the quarry site where the kilns are located. The new classifier will allow production of PLS products with size characteristics different than the products currently produced. A loading chute with a slide gate and loading spout will also be installed at the end of the screw conveyor extension to allow truck or railcar loading of modified PLS products.

Source SN-36P is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.

Specific Conditions

336. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
36P	PM <sub>10</sub>	0.2	0.8

337. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
36P	PM <sub>10</sub>	0.2	0.8

338. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

Source	Limit	Regulatory Citation
36P	7%	Reg.18.501, Reg.19.304, 40 C.F.R. § 60.672(a)(2), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311 and 40 C.F.R. § 52 Subpart E



Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

339. The permittee shall conduct weekly observations of the opacity from source SN-36P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
340. Source SN-36P is subject to 40 C.F.R. § 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Condition #338 and Plantwide Conditions #7 through #12.

Arkansas Lime Company  
Permit #: 0045-AOP-R8  
AFIN: 32-00014

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

Arkansas Lime 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. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 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. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise 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) business days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee must provide:
  - 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.

[Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
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. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Reg. 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

NSPS Subpart OOO

7. In conducting the performance tests required in 40 CFR §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section. [§19.304 of Regulation #19 and 40 CFR §60.675(a)]
8. In determining the compliance with the particulate matter standards in §60.672(c) for Crushers (SN-01Q and SN-02Q), the owner or operator shall use Method 9 and the procedures in 40 CFR §60.11, with the following additions: [§19.304 of Regulation #19 and 40 CFR §60.675(c)(1)]
  - a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
  - b. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
  - c. For affected facilities using wet dust suppression for particulate matter, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not considered to be a visible emission. When a water mist of this nature is present, the observation of the emissions is to be made at a point in the plume where the mist is no longer visible.
9. When determining compliance with the fugitive emission standard for any crusher at which a capture system is not used as described under 40 CFR §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [§19.304 of Regulation #19 and 40 CFR §60.675(c)(4)]
  - a. There are no individual opacity readings greater than 15 percent opacity; and
  - b. There are no more than 3 readings of 15 percent for the 1-hour period.
10. When determining compliance with the fugitive emissions standard for any transfer point on belt conveyors (SN-03Q, SN-07Q, SN-09Q, SN-10Q, SN-31Q, SN-01P, SN-30P, SN-33P, and SN-34P), the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [§19.304 of Regulation #19 and 40 CFR §60.675(c)(3)]
  - a. There are no individual readings greater than 10 percent opacity; and
  - b. There are no more than 3 readings of 10 percent for the 1-hour period.

11. If any conveyor transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each affected facility must comply with the emission limits in paragraph §60.672(b), or the building enclosing the affected facility or facilities must comply with the following emission limits: [§19.304 and §19.503 of Regulation #19, 40 CFR Part 52, Subpart E, and 40 CFR §60.672(e)]
  - a. No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive except emissions from a vent as defined in §60.671.
  - b. No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.
12. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b). [§19.304 of Regulation #19 and 40 CFR §60.676(f)]

MACT AAAAA

13. The permittee shall conduct all performance tests as required in Table 4 of 40 CFR part 63, Subpart AAAAA. Subsequent performance tests are to be repeated every 5 years and shall occur by June 30 of the testing year. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 4]
14. The permittee shall submit all reports as required in Table 7 of 40 CFR part 63, Subpart AAAAA. Source SN-11Q is considered an existing source and is not subject to this requirement until January 5, 2007. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 7]
15. The permittee shall comply with all General Provisions to 40 CFR Part 63 as required in Table 8 of 40 CFR part 63, Subpart AAAAA. This includes the preparation of a Startup, Shutdown, and Malfunction Plan as required by §63.6(e)(3). Source SN-11Q is considered an existing source and is not subject to this requirement until January 5, 2007. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 8]

Title VI Provisions

16. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 C.F.R. § 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.
17. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 C.F.R. § 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.
18. 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 C.F.R. § 82 Subpart A, Production and Consumption Controls.

19. 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 C.F.R. § 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.

20. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 C.F.R. § 82 Subpart G.

#### Permit Shield

21. 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 February 25, 2010.

#### Applicable Regulations

Source No.	Regulation	Description
01Q, 02Q, 03Q, 07Q, 09Q, 10Q, 27Q, 31Q, 35Q, 36Q, 01P, 19P, 30P, 33P, 34P, and 36P	40 CFR 60, Subpart OOO	New Source Performance Standards for Non Metallic Mineral Processing Plants
11Q, 24Q, and 30Q	40 CFR 60, Subpart HH	New Source Performance Standards for Lime Manufacturing Plants
21Q, 28Q, and Coal systems	40 CFR 60, Subpart Y	New Source Performance Standards for Coal Preparation Plants

Arkansas Lime Company  
 Permit #: 0045-AOP-R8  
 AFIN: 32-00014

Source No.	Regulation	Description
Transfer Point D06 (Kiln Feed Belt into Stone Bin) of SN-07Q, 11Q, 24Q, 27Q, 30Q, and 35Q	40 CFR 63, Subpart AAAAA	National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants
43Q	40 CFR 63, Subpart ZZZZ	Stationary Reciprocation Internal Combustion Engines
11Q, 24Q, 25Q, 26Q, 27Q, 28Q, 30Q through 39Q	40 CFR 52	Prevention of Significant Deterioration
11Q, 13Q, 15Q, 24Q, 25Q, 32Q, 12P, 18P, and 19P	40 CFR 64	Compliance Assurance Monitoring

The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated February 25, 2010.

#### Inapplicable Regulations

Source No.	Regulation	Description
43Q & 44Q	40 CFR 60 Subpart IIII	Stationary Combustion Engines
Gasoline Storage Tank	40 CFR Part 63 Subpart CCCCC	Gasoline Dispensing Facilities (area sources)
Facility	40 CFR Part 68	Chemical Accident Prevention



## SECTION VII: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and Regulation 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in applications dated February 25, 2010; August 20, 2018; and April 1, 2019. [Reg.26.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Description	Category
Lime Cooler Rejects Discharge	A-13
Dribble Chute Discharge	A-13
Railcar Cleanout	A-13
Blast Hole Drilling	A-13
Quarry Blasting	A-13
8,000 gallon Diesel Storage Tank	A-3
1,000 gallon Diesel Storage Tank	A-3
(2) 500 gallon Diesel Storage Tanks	A-3
Laboratory	A-5
Portable Conveyors	A-13
Big Bag Filling	A-13
1,000 gallon gasoline tank	A-13
Hydrate Rejects Discharge	A-13
(2) 1,000 gallon Lube Oil Storage Tank	A-3
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	N/A

## 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 (Ark. Code Ann. § 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 (Ark. Code Ann. § 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 (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 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 C.F.R. § 70.6(a)(2) and Reg.26.701(B)]
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. [Reg.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 C.F.R. § 70.6(a)(1)(ii) and Reg.26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
  - 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.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and Reg.26.701(C)(2)]

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 C.F.R. § 70.6(a)(3)(ii)(B) and Reg.26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Reg.26.2 must certify all required reports. The permittee will send the reports to the address below:

Arkansas Department of Environmental Quality  
Office of Air Quality  
ATTN: Compliance Inspector Supervisor  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and Reg.26.701(C)(3)(a)]

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 Reg.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 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.

[Reg.19.601, Reg.19.602, Reg.26.701(C)(3)(b), and 40 C.F.R. § 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 C.F.R. § 70.6(a)(5), Reg.26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 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 C.F.R. § 70.6(a)(6)(i) and Reg.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 C.F.R. § 70.6(a)(6)(ii) and Reg.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 C.F.R. § 70.6(a)(6)(iii) and Reg.26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Reg.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 C.F.R. § 70.6(a)(6)(v) and Reg.26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 C.F.R. § 70.6(a)(7) and Reg.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 C.F.R. § 70.6(a)(8) and Reg.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 C.F.R. § 70.6(a)(9)(i) and Reg.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 C.F.R. § 70.6(b) and Reg.26.702(A) and (B)]
19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in Reg.26.2. [40 C.F.R. § 70.6(c)(1) and Reg.26.703(A)]
20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Reg.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. If the 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 on the first day of the second month after the end of the reporting period. The permittee must also 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 C.F.R. § 70.6(c)(5) and Reg.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; and
  - e. 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: [Reg.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. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
  - a. Such an extension does not violate a federal requirement;
  - b. The permittee demonstrates the need for the extension; and
  - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Reg.18.314(A), Reg.19.416(A), Reg.26.1013(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:
- a. Such a request does not violate a federal requirement;
  - b. Such a request is temporary in nature;
  - c. Such a request will not result in a condition of air pollution;
  - d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
  - e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
  - f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Reg.18.314(B), Reg.19.416(B), Reg.26.1013(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:
- a. The request does not violate a federal requirement;
  - b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
  - c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Reg.18.314(C), Reg.19.416(C), Reg.26.1013(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

27. Any credible evidence based on sampling, monitoring, and reporting may be used to determine violations of applicable emission limitations. [Reg.18.1001, Reg.19.701, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

## ***Appendix A***

***40 C.F.R. Part 60 Subpart Y—  
Standards of Performance  
for Coal Preparation and Processing Plants***



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## Subpart Y—Standards of Performance for Coal Preparation and Processing Plants

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### Contents

- §60.250 Applicability and designation of affected facility.
  - §60.251 Definitions.
  - §60.252 Standards for thermal dryers.
  - §60.253 Standards for pneumatic coal-cleaning equipment.
  - §60.254 Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles.
  - §60.255 Performance tests and other compliance requirements.
  - §60.256 Continuous monitoring requirements.
  - §60.257 Test methods and procedures.
  - §60.258 Reporting and recordkeeping.
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SOURCE: 74 FR 51977, Oct. 8, 2009, unless otherwise noted.

[↑ Back to Top](#)

### **§60.250 Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to affected facilities in coal preparation and processing plants that process more than 181 megagrams (Mg) (200 tons) of coal per day.

(b) The provisions in §§60.251, 60.252(a), 60.253(a), 60.254(a), 60.255(a), and 60.256(a) of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after October 27, 1974, and on or before April 28, 2008: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.

(c) The provisions in §§60.251, 60.252(b)(1) and (c), 60.253(b), 60.254(b), 60.255(b) through (h), 60.256(b) and (c), 60.257, and 60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after April 28, 2008, and on or before May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.

(d) The provisions in §§60.251, 60.252(b)(1) through (3), and (c), 60.253(b), 60.254(b) and (c), 60.255(b) through (h), 60.256(b) and (c), 60.257, and 60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after

May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, transfer and loading systems, and open storage piles.

[↑ Back to Top](#)

### **§60.251 Definitions.**

As used in this subpart, all terms not defined herein have the meaning given them in the Clean Air Act (Act) and in subpart A of this part.

(a) *Anthracite* means coal that is classified as anthracite according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

(b) *Bag leak detection system* means a system that is capable of continuously monitoring relative particulate matter (dust loadings) in the exhaust of a fabric filter to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

(c) *Bituminous coal* means solid fossil fuel classified as bituminous coal by ASTM D388 (incorporated by reference—see §60.17).

(d) *Coal* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference—see §60.17).

(2) For units constructed, reconstructed, or modified after May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference—see §60.17), and coal refuse.

(e) *Coal preparation and processing plant* means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.

(f) *Coal processing and conveying equipment* means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts. Equipment located at the mine face is not considered to be part of the coal preparation and processing plant.

(g) *Coal refuse* means waste products of coal mining, physical coal cleaning, and coal preparation operations (e.g., culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

(h) *Coal storage system* means any facility used to store coal except for open storage piles.

(i) *Design controlled potential PM emissions rate* means the theoretical particulate matter (PM) emissions (Mg) that would result from the operation of a control device at its design emissions rate

(grams per dry standard cubic meter (g/dscm)), multiplied by the maximum design flow rate (dry standard cubic meter per minute (dscm/min)), multiplied by 60 (minutes per hour (min/hr)), multiplied by 8,760 (hours per year (hr/yr)), divided by 1,000,000 (megagrams per gram (Mg/g)).

(j) *Indirect thermal dryer* means a thermal dryer that reduces the moisture content of coal through indirect heating of the coal through contact with a heat transfer medium. If the source of heat (the source of combustion or furnace) is subject to another subpart of this part, then the furnace and the associated emissions are not part of the affected facility. However, if the source of heat is not subject to another subpart of this part, then the furnace and the associated emissions are part of the affected facility.

(k) *Lignite* means coal that is classified as lignite A or B according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

(l) *Mechanical vent* means any vent that uses a powered mechanical drive (machine) to induce air flow.

(m) *Open storage pile* means any facility, including storage area, that is not enclosed that is used to store coal, including the equipment used in the loading, unloading, and conveying operations of the facility.

(n) *Operating day* means a 24-hour period between 12 midnight and the following midnight during which coal is prepared or processed at any time by the affected facility. It is not necessary that coal be prepared or processed the entire 24-hour period.

(o) *Pneumatic coal-cleaning equipment* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).

(2) For units constructed, reconstructed, or modified after May 27, 2009, any facility which classifies coal by size or separates coal from refuse by application of air stream(s).

(p) *Potential combustion concentration* means the theoretical emissions (nanograms per joule (ng/J) or pounds per million British thermal units (lb/MMBtu) heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems, as determined using Method 19 of appendix A-7 of this part.

(q) *Subbituminous coal* means coal that is classified as subbituminous A, B, or C according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

(r) *Thermal dryer* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.

(2) For units constructed, reconstructed, or modified after May 27, 2009, any facility in which the moisture content of coal is reduced by either contact with a heated gas stream which is

exhausted to the atmosphere or through indirect heating of the coal through contact with a heated heat transfer medium.

(s) *Transfer and loading system* means any facility used to transfer and load coal for shipment.

 [Back to Top](#)

#### **§60.252 Standards for thermal dryers.**

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified on or before April 28, 2008, subject to the provisions of this subpart must meet the requirements in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall not cause to be discharged into the atmosphere from the thermal dryer any gases which contain PM in excess of 0.070 g/dscm (0.031 grains per dry standard cubic feet (gr/dscf)); and

(2) The owner or operator shall not cause to be discharged into the atmosphere from the thermal dryer any gases which exhibit 20 percent opacity or greater.

(b) Except as provided in paragraph (c) of this section, on and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after April 28, 2008, subject to the provisions of this subpart must meet the applicable standards for PM and opacity, as specified in paragraph (b)(1) of this section. In addition, and except as provided in paragraph (c) of this section, on and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after May 29, 2009, subject to the provisions of this subpart must also meet the applicable standards for sulfur dioxide (SO<sub>2</sub>), and combined nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) as specified in paragraphs (b)(2) and (b)(3) of this section.

(1) The owner or operator must meet the requirements for PM emissions in paragraphs (b)(1)(i) through (iii) of this section, as applicable to the affected facility.

(i) For each thermal dryer constructed or reconstructed after April 28, 2008, the owner or operator must meet the requirements of (b)(1)(i)(A) and (b)(1)(i)(B).

(A) The owner or operator must not cause to be discharged into the atmosphere from the thermal dryer any gases that contain PM in excess of 0.023 g/dscm (0.010 grains per dry standard cubic feet (gr/dscf)); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the thermal dryer any gases that exhibit 10 percent opacity or greater.

(ii) For each thermal dryer modified after April 28, 2008, the owner or operator must meet the requirements of paragraphs (b)(1)(ii)(A) and (b)(1)(ii)(B) of this section.

(A) The owner or operator must not cause to be discharged to the atmosphere from the affected facility any gases which contain PM in excess of 0.070 g/dscm (0.031 gr/dscf); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 20 percent opacity or greater.

(2) Except as provided in paragraph (b)(2)(iii) of this section, for each thermal dryer constructed, reconstructed, or modified after May 27, 2009, the owner or operator must meet the requirements for SO<sub>2</sub> emissions in either paragraph (b)(2)(i) or (b)(2)(ii) of this section.

(i) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 85 ng/J (0.20 lb/MMBtu) heat input; or

(ii) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that either contain SO<sub>2</sub> in excess of 520 ng/J (1.20 lb/MMBtu) heat input or contain SO<sub>2</sub> in excess of 10 percent of the potential combustion concentration (*i.e.*, the facility must achieve at least a 90 percent reduction of the potential combustion concentration and may not exceed a maximum emissions rate of 1.2 lb/MMBtu (520 ng/J)).

(iii) Thermal dryers that receive all of their thermal input from a source other than coal or residual oil, that receive all of their thermal input from a source subject to an SO<sub>2</sub> limit under another subpart of this part, or that use waste heat or residual from the combustion of coal or residual oil as their only thermal input are not subject to the SO<sub>2</sub> limits of this section.

(3) Except as provided in paragraph (b)(3)(iii) of this section, the owner or operator must meet the requirements for combined NO<sub>x</sub> and CO emissions in paragraph (b)(3)(i) or (b)(3)(ii) of this section, as applicable to the affected facility.

(i) For each thermal dryer constructed after May 27, 2009, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which contain a combined concentration of NO<sub>x</sub> and CO in excess of 280 ng/J (0.65 lb/MMBtu) heat input.

(ii) For each thermal dryer reconstructed or modified after May 27, 2009, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which contain combined concentration of NO<sub>x</sub> and CO in excess of 430 ng/J (1.0 lb/MMBtu) heat input.

(iii) Thermal dryers that receive all of their thermal input from a source other than coal or residual oil, that receive all of their thermal input from a source subject to a NO<sub>x</sub> limit and/or CO limit under another subpart of this part, or that use waste heat or residual from the combustion of coal or residual oil as their only thermal input, are not subject to the combined NO<sub>x</sub> and CO limits of this section.

(c) Thermal dryers receiving all of their thermal input from an affected facility covered under another 40 CFR Part 60 subpart must meet the applicable requirements in that subpart but are not subject to the requirements in this subpart.

 [Back to Top](#)

### **§60.253 Standards for pneumatic coal-cleaning equipment.**

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of pneumatic coal-cleaning equipment constructed, reconstructed, or modified on or before April 28, 2008, must meet the requirements of paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that contain PM in excess of 0.040 g/dscm (0.017 gr/dscf); and

(2) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that exhibit 10 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of pneumatic coal-cleaning equipment constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) and (b)(2) of this section.

(1) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that contain PM in excess of 0.023 g/dscm (0.010 gr/dscf); and

(2) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that exhibit greater than 5 percent opacity.

 [Back to Top](#)

#### **§60.254 Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles.**

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of this section, as applicable to the affected facility.

(1) Except as provided in paragraph (b)(3) of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

(2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

(3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of this section.

(c) The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal

dust emissions control plan that is appropriate for the site conditions as specified in paragraphs (c)(1) through (6) of this section.

(1) The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.

(2) For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable fugitive coal dust: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when the provisions of paragraph (c)(6) of this section are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.

(3) Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph (c)(2) of this section as specified in paragraphs (c)(3)(i) through (iv) of this section.

(i) The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph (c)(3)(ii) of this section.

(ii) The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternate control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph (c)(2).

(iii) While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions control plan that contains one of the control measures specifically identified in paragraph (c)(2) of this section while the petition is pending.

(iv) If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(4) The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority as specified in paragraphs (c)(4)(i) and (c)(4)(ii) of this section.



(i) The plan must be submitted to the Administrator or delegated authority prior to startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.

(ii) The plan must be revised as needed to reflect any changing conditions at the source. Such revisions must be dated and submitted to the Administrator or delegated authority before a source can operate pursuant to these revisions. The Administrator or delegated authority may also object to such revisions as specified in paragraph (c)(5) of this section.

(5) The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs (c)(5)(i) and (c)(5)(ii) of this section.

(i) The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.

(ii) If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegated authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph (c)(5) of this section, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.

(6) Where appropriate chemical dust suppression agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions, (1) only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)-compliant material safety data sheets (MSDS) are to be allowed; (2) the MSDS must be included in the fugitive coal dust emissions control plan; and (3) the owner or operator must consider and document in the fugitive coal dust emissions control plan the site-specific impacts associated with the use of such chemical dust suppressants.

[↑ Back to Top](#)

#### **§60.255 Performance tests and other compliance requirements.**

(a) An owner or operator of each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standards using the methods identified in §60.257.

(b) An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(1) and (2) of this section.

(1) For each affected facility subject to a PM, SO<sub>2</sub>, or combined NO<sub>x</sub> and CO emissions standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according the requirements in paragraphs (b)(1)(i) through (iii) of this section, as applicable.

(i) If the results of the most recent performance test demonstrate that emissions from the affected facility are greater than 50 percent of the applicable emissions standard, a new



performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(ii) If the results of the most recent performance test demonstrate that emissions from the affected facility are 50 percent or less of the applicable emissions standard, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.

(iii) An owner or operator of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

(2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of this section.

(i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.

(ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(iii) An owner or operator of an affected facility continuously monitoring scrubber parameters as specified in §60.256(b)(2) is exempt from the requirements in paragraphs (b)(2)(i) and (ii) if opacity performance tests are conducted concurrently with (or within a 60-minute period of) PM performance tests.

(c) If any affected coal processing and conveying equipment (e.g., breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in §60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards.

(d) An owner or operator of an affected facility (other than a thermal dryer) that commenced construction, reconstruction, or modification after April 28, 2008, is subject to a PM emission standard and uses a control device with a design controlled potential PM emissions rate of 1.0 Mg (1.1 tons) per year or less is exempted from the requirements of paragraphs (b)(1)(i) and (ii) of this section provided that the owner or operator meets all of the conditions specified in paragraphs (d)(1) through (3) of this section. This exemption does not apply to thermal dryers.

(1) PM emissions, as determined by the most recent performance test, are less than or equal to the applicable limit,

(2) The control device manufacturer's recommended maintenance procedures are followed, and

(3) All 6-minute average opacity readings from the most recent performance test are equal to or less than half the applicable opacity limit or the monitoring requirements in paragraphs (e) or (f) of this section are followed.

(e) For an owner or operator of a group of up to five of the same type of affected facilities that commenced construction, reconstruction, or modification after April 28, 2008, that are subject to PM emissions standards and use identical control devices, the Administrator or delegated authority may allow the owner or operator to use a single PM performance test for one of the affected control devices to demonstrate that the group of affected facilities is in compliance with the applicable emissions standards provided that the owner or operator meets all of the conditions specified in paragraphs (e)(1) through (3) of this section.

(1) PM emissions from the most recent performance test for each individual affected facility are 90 percent or less of the applicable PM standard;

(2) The manufacturer's recommended maintenance procedures are followed for each control device; and

(3) A performance test is conducted on each affected facility at least once every 5 calendar years.

(f) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, may elect to comply with the requirements in paragraph (f)(1) or (f)(2) of this section.

(1) Monitor visible emissions from each affected facility according to the requirements in paragraphs (f)(1)(i) through (iii) of this section.

(i) Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in §2.3 of Method 22 of appendix A-7 of this part. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of appendix A-4 of this part, performance test must be conducted within 45 operating days.

(ii) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(iii) Conduct a performance test using Method 9 of appendix A-4 of this part at least once every 5 calendar years for each affected facility.

(2) Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the Administrator or delegated authority. The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day. An approvable monitoring plan must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is

available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. The monitoring plan approved by the Administrator or delegated authority shall be implemented by the owner or operator.

(g) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, subject to a visible emissions standard under this subpart may install, operate, and maintain a continuous opacity monitoring system (COMS). Each COMS used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (g)(1) and (2) of this section.

(1) The COMS must meet Performance Specification 1 in 40 CFR part 60, appendix B.

(2) The COMS must comply with the quality assurance requirements in paragraphs (g)(2)(i) through (v) of this section.

(i) The owner or operator must automatically (intrinsic to the opacity monitor) check the zero and upscale (span) calibration drifts at least once daily. For particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of Performance Specification 1 in 40 CFR part 60, appendix B.

(ii) The owner or operator must adjust the zero and span whenever the 24-hour zero drift or 24-hour span drift exceeds 4 percent opacity. The COMS must allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. The optical surfaces exposed to the effluent gases must be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. For systems using automatic zero adjustments, the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(iii) The owner or operator must apply a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. All procedures applied must provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

(iv) Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the COMS must be in continuous operation and must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(v) The owner or operator must reduce all data from the COMS to 6-minute averages. Six-minute opacity averages must be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages. An arithmetic or integrated average of all data may be used.

(h) The owner or operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in paragraphs (h)(1) through (3) of this section.

(1) Conduct an initial performance test using Method 9 of appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and(ii).

(i) Opacity readings shall be taken during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position.

(ii) Compliance with the applicable opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events.

(2) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(3) Conduct a performance test using Method 9 of appendix A-4 of this part at least once every 5 calendar years for each affected facility.

 [Back to Top](#)

#### **§60.256 Continuous monitoring requirements.**

(a) The owner or operator of each affected facility constructed, reconstructed, or modified on or before April 28, 2008, must meet the monitoring requirements specified in paragraphs (a)(1) and (2) of this section, as applicable to the affected facility.

(1) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

(i) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1.7^{\circ}\text{C}$  ( $\pm 3^{\circ}\text{F}$ ).

(ii) For affected facilities that use wet scrubber emission control equipment:

(A) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge.

(B) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator shall have discretion to grant requests for approval of alternative monitoring locations.

(2) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under §60.13(b).

(b) The owner or operator of each affected facility constructed, reconstructed, or modified after April 28, 2008, that has one or more mechanical vents must install, calibrate, maintain, and continuously operate the monitoring devices specified in paragraphs (b)(1) through (3) of this section, as applicable to the mechanical vent and any control device installed on the vent.

(1) For mechanical vents with fabric filters (baghouses) with design controlled potential PM emissions rates of 25 Mg (28 tons) per year or more, a bag leak detection system according to the requirements in paragraph (c) of this section.

(2) For mechanical vents with wet scrubbers, monitoring devices according to the requirements in paragraphs (b)(2)(i) through (iv) of this section.

(i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge.

(ii) A monitoring device for the continuous measurement of the water supply flow rate to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design water supply flow rate.

(iii) A monitoring device for the continuous measurement of the pH of the wet scrubber liquid. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design pH.

(iv) An average value for each monitoring parameter must be determined during each performance test. Each monitoring parameter must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

(3) For mechanical vents with control equipment other than wet scrubbers, a monitoring device for the continuous measurement of the reagent injection flow rate to the control equipment, as applicable. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design injection flow rate. An average reagent injection flow rate value must be determined during each performance test. The reagent injection flow rate must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

(c) Each bag leak detection system used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (c)(1) through (3) of this section.

(1) The bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (mg/dscm) (0.00044 grains per actual cubic foot (gr/acf)) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (c)(2)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator must develop and submit to the Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. This plan must be submitted to the Administrator or delegated authority 30 days prior to startup of the affected facility. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow the owner and operator more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (c)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the PM emissions.

[↑ Back to Top](#)

#### **§60.257 Test methods and procedures.**

(a) The owner or operator must determine compliance with the applicable opacity standards as specified in paragraphs (a)(1) through (3) of this section.

(1) Method 9 of appendix A-4 of this part and the procedures in §60.11 must be used to determine opacity, with the exceptions specified in paragraphs (a)(1)(i) and (ii).

(i) The duration of the Method 9 of appendix A-4 of this part performance test shall be 1 hour (ten 6-minute averages).

(ii) If, during the initial 30 minutes of the observation of a Method 9 of appendix A-4 of this part performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

(2) To determine opacity for fugitive coal dust emissions sources, the additional requirements specified in paragraphs (a)(2)(i) through (iii) must be used.

(i) The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.

(ii) The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.

(iii) The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.

(3) A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in paragraphs (a)(3)(i) through (iii) of this section are met.

(i) No more than three emissions points may be read concurrently.

(ii) All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

(b) The owner or operator must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emissions standards specified in §60.252 according to the requirements in §60.8 using the applicable test methods and procedures in paragraphs (b)(1) through (8) of this section.

(1) Method 1 or 1A of appendix A-4 of this part shall be used to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(2) Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A-4 of this part shall be used to determine the volumetric flow rate of the stack gas.

(3) Method 3, 3A, or 3B of appendix A-4 of this part shall be used to determine the dry molecular weight of the stack gas. The owner or operator may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses (incorporated by reference—see §60.17) as an alternative to Method 3B of appendix A-2 of this part.

(4) Method 4 of appendix A-4 of this part shall be used to determine the moisture content of the stack gas.

(5) Method 5, 5B or 5D of appendix A-4 of this part or Method 17 of appendix A-7 of this part shall be used to determine the PM concentration as follows:

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. A minimum of three valid test runs are needed to comprise a PM performance test.

(ii) Method 5 of appendix A of this part shall be used only to test emissions from affected facilities without wet flue gas desulfurization (FGD) systems.

(iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.

(iv) Method 5D of appendix A-4 of this part shall be used for positive pressure fabric filters and other similar applications (e.g., stub stacks and roof vents).

(v) Method 17 of appendix A-6 of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B of appendix A-3 of this part may be used in Method 17 of appendix A-6 of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A-6 of this part after wet FGD systems if the effluent is saturated or laden with water droplets.



(6) Method 6, 6A, or 6C of appendix A-4 of this part shall be used to determine the SO<sub>2</sub> concentration. A minimum of three valid test runs are needed to comprise an SO<sub>2</sub> performance test.

(7) Method 7 or 7E of appendix A-4 of this part shall be used to determine the NO<sub>x</sub> concentration. A minimum of three valid test runs are needed to comprise an NO<sub>x</sub> performance test.

(8) Method 10 of appendix A-4 of this part shall be used to determine the CO concentration. A minimum of three valid test runs are needed to comprise a CO performance test. CO performance tests are conducted concurrently (or within a 60-minute period) with NO<sub>x</sub> performance tests.

 [Back to Top](#)

### **§60.258 Reporting and recordkeeping.**

(a) The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:

(1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.

(2) The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.

(3) The amount and type of coal processed each calendar month.

(4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.

(5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.

(6) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well.

(7) For each bag leak detection system, the owner or operator must keep the records specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(8) A copy of any applicable monitoring plan for a digital opacity compliance system and monthly certification that the plan was implemented as described. Any variance from plan, if any, shall be noted.

(9) During a performance test of a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the scrubber pressure loss, water supply flow rate, and pH of the wet scrubber liquid.

(10) During a performance test of control equipment other than a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the reagent injection flow rate, as applicable.

(b) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow:

(1) The owner or operator of an affected facility with a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the scrubber pressure loss, water supply flow rate, or pH of the wet scrubber liquid vary by more than 10 percent from the average determined during the most recent performance test.

(2) The owner or operator of an affected facility with control equipment other than a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the reagent injection flow rate, as applicable, vary by more than 10 percent from the average determined during the most recent performance test.

(3) All 6-minute average opacities that exceed the applicable standard.

(c) The owner or operator of an affected facility shall submit the results of initial performance tests to the Administrator or delegated authority, consistent with the provisions of section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. The owner or operator electing to comply with section 60.255(d) shall also include information which demonstrates that the control devices are identical.

(d) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

 [Back to Top](#)

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## Subpart Y—Standards of Performance for Coal Preparation and Processing Plants

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### Contents

- §60.250 Applicability and designation of affected facility.
  - §60.251 Definitions.
  - §60.252 Standards for thermal dryers.
  - §60.253 Standards for pneumatic coal-cleaning equipment.
  - §60.254 Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles.
  - §60.255 Performance tests and other compliance requirements.
  - §60.256 Continuous monitoring requirements.
  - §60.257 Test methods and procedures.
  - §60.258 Reporting and recordkeeping.
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SOURCE: 74 FR 51977, Oct. 8, 2009, unless otherwise noted.

[↑ Back to Top](#)

### **§60.250 Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to affected facilities in coal preparation and processing plants that process more than 181 megagrams (Mg) (200 tons) of coal per day.

(b) The provisions in §§60.251, 60.252(a), 60.253(a), 60.254(a), 60.255(a), and 60.256(a) of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after October 27, 1974, and on or before April 28, 2008: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.

(c) The provisions in §§60.251, 60.252(b)(1) and (c), 60.253(b), 60.254(b), 60.255(b) through (h), 60.256(b) and (c), 60.257, and 60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after April 28, 2008, and on or before May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.

(d) The provisions in §§60.251, 60.252(b)(1) through (3), and (c), 60.253(b), 60.254(b) and (c), 60.255(b) through (h), 60.256(b) and (c), 60.257, and 60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after

May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, transfer and loading systems, and open storage piles.

[↑ Back to Top](#)

### **§60.251 Definitions.**

As used in this subpart, all terms not defined herein have the meaning given them in the Clean Air Act (Act) and in subpart A of this part.

(a) *Anthracite* means coal that is classified as anthracite according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

(b) *Bag leak detection system* means a system that is capable of continuously monitoring relative particulate matter (dust loadings) in the exhaust of a fabric filter to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

(c) *Bituminous coal* means solid fossil fuel classified as bituminous coal by ASTM D388 (incorporated by reference—see §60.17).

(d) *Coal* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference—see §60.17).

(2) For units constructed, reconstructed, or modified after May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference—see §60.17), and coal refuse.

(e) *Coal preparation and processing plant* means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.

(f) *Coal processing and conveying equipment* means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts. Equipment located at the mine face is not considered to be part of the coal preparation and processing plant.

(g) *Coal refuse* means waste products of coal mining, physical coal cleaning, and coal preparation operations (e.g., culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

(h) *Coal storage system* means any facility used to store coal except for open storage piles.

(i) *Design controlled potential PM emissions rate* means the theoretical particulate matter (PM) emissions (Mg) that would result from the operation of a control device at its design emissions rate

(grams per dry standard cubic meter (g/dscm)), multiplied by the maximum design flow rate (dry standard cubic meter per minute (dscm/min)), multiplied by 60 (minutes per hour (min/hr)), multiplied by 8,760 (hours per year (hr/yr)), divided by 1,000,000 (megagrams per gram (Mg/g)).

(j) *Indirect thermal dryer* means a thermal dryer that reduces the moisture content of coal through indirect heating of the coal through contact with a heat transfer medium. If the source of heat (the source of combustion or furnace) is subject to another subpart of this part, then the furnace and the associated emissions are not part of the affected facility. However, if the source of heat is not subject to another subpart of this part, then the furnace and the associated emissions are part of the affected facility.

(k) *Lignite* means coal that is classified as lignite A or B according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

(l) *Mechanical vent* means any vent that uses a powered mechanical drive (machine) to induce air flow.

(m) *Open storage pile* means any facility, including storage area, that is not enclosed that is used to store coal, including the equipment used in the loading, unloading, and conveying operations of the facility.

(n) *Operating day* means a 24-hour period between 12 midnight and the following midnight during which coal is prepared or processed at any time by the affected facility. It is not necessary that coal be prepared or processed the entire 24-hour period.

(o) *Pneumatic coal-cleaning equipment* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).

(2) For units constructed, reconstructed, or modified after May 27, 2009, any facility which classifies coal by size or separates coal from refuse by application of air stream(s).

(p) *Potential combustion concentration* means the theoretical emissions (nanograms per joule (ng/J) or pounds per million British thermal units (lb/MMBtu) heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems, as determined using Method 19 of appendix A-7 of this part.

(q) *Subbituminous coal* means coal that is classified as subbituminous A, B, or C according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

(r) *Thermal dryer* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.

(2) For units constructed, reconstructed, or modified after May 27, 2009, any facility in which the moisture content of coal is reduced by either contact with a heated gas stream which is

exhausted to the atmosphere or through indirect heating of the coal through contact with a heated heat transfer medium.

(s) *Transfer and loading system* means any facility used to transfer and load coal for shipment.

 [Back to Top](#)

#### **§60.252 Standards for thermal dryers.**

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified on or before April 28, 2008, subject to the provisions of this subpart must meet the requirements in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall not cause to be discharged into the atmosphere from the thermal dryer any gases which contain PM in excess of 0.070 g/dscm (0.031 grains per dry standard cubic feet (gr/dscf)); and

(2) The owner or operator shall not cause to be discharged into the atmosphere from the thermal dryer any gases which exhibit 20 percent opacity or greater.

(b) Except as provided in paragraph (c) of this section, on and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after April 28, 2008, subject to the provisions of this subpart must meet the applicable standards for PM and opacity, as specified in paragraph (b)(1) of this section. In addition, and except as provided in paragraph (c) of this section, on and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after May 29, 2009, subject to the provisions of this subpart must also meet the applicable standards for sulfur dioxide (SO<sub>2</sub>), and combined nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) as specified in paragraphs (b)(2) and (b)(3) of this section.

(1) The owner or operator must meet the requirements for PM emissions in paragraphs (b)(1)(i) through (iii) of this section, as applicable to the affected facility.

(i) For each thermal dryer constructed or reconstructed after April 28, 2008, the owner or operator must meet the requirements of (b)(1)(i)(A) and (b)(1)(i)(B).

(A) The owner or operator must not cause to be discharged into the atmosphere from the thermal dryer any gases that contain PM in excess of 0.023 g/dscm (0.010 grains per dry standard cubic feet (gr/dscf)); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the thermal dryer any gases that exhibit 10 percent opacity or greater.

(ii) For each thermal dryer modified after April 28, 2008, the owner or operator must meet the requirements of paragraphs (b)(1)(ii)(A) and (b)(1)(ii)(B) of this section.

(A) The owner or operator must not cause to be discharged to the atmosphere from the affected facility any gases which contain PM in excess of 0.070 g/dscm (0.031 gr/dscf); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 20 percent opacity or greater.

(2) Except as provided in paragraph (b)(2)(iii) of this section, for each thermal dryer constructed, reconstructed, or modified after May 27, 2009, the owner or operator must meet the requirements for SO<sub>2</sub> emissions in either paragraph (b)(2)(i) or (b)(2)(ii) of this section.

(i) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 85 ng/J (0.20 lb/MMBtu) heat input; or

(ii) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that either contain SO<sub>2</sub> in excess of 520 ng/J (1.20 lb/MMBtu) heat input or contain SO<sub>2</sub> in excess of 10 percent of the potential combustion concentration (*i.e.*, the facility must achieve at least a 90 percent reduction of the potential combustion concentration and may not exceed a maximum emissions rate of 1.2 lb/MMBtu (520 ng/J)).

(iii) Thermal dryers that receive all of their thermal input from a source other than coal or residual oil, that receive all of their thermal input from a source subject to an SO<sub>2</sub> limit under another subpart of this part, or that use waste heat or residual from the combustion of coal or residual oil as their only thermal input are not subject to the SO<sub>2</sub> limits of this section.

(3) Except as provided in paragraph (b)(3)(iii) of this section, the owner or operator must meet the requirements for combined NO<sub>x</sub> and CO emissions in paragraph (b)(3)(i) or (b)(3)(ii) of this section, as applicable to the affected facility.

(i) For each thermal dryer constructed after May 27, 2009, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which contain a combined concentration of NO<sub>x</sub> and CO in excess of 280 ng/J (0.65 lb/MMBtu) heat input.

(ii) For each thermal dryer reconstructed or modified after May 27, 2009, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which contain combined concentration of NO<sub>x</sub> and CO in excess of 430 ng/J (1.0 lb/MMBtu) heat input.

(iii) Thermal dryers that receive all of their thermal input from a source other than coal or residual oil, that receive all of their thermal input from a source subject to a NO<sub>x</sub> limit and/or CO limit under another subpart of this part, or that use waste heat or residual from the combustion of coal or residual oil as their only thermal input, are not subject to the combined NO<sub>x</sub> and CO limits of this section.

(c) Thermal dryers receiving all of their thermal input from an affected facility covered under another 40 CFR Part 60 subpart must meet the applicable requirements in that subpart but are not subject to the requirements in this subpart.

 [Back to Top](#)

### **§60.253 Standards for pneumatic coal-cleaning equipment.**

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of pneumatic coal-cleaning equipment constructed, reconstructed, or modified on or before April 28, 2008, must meet the requirements of paragraphs (a)(1) and (a)(2) of this section.



(1) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that contain PM in excess of 0.040 g/dscm (0.017 gr/dscf); and

(2) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that exhibit 10 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of pneumatic coal-cleaning equipment constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) and (b)(2) of this section.

(1) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that contain PM in excess of 0.023 g/dscm (0.010 gr/dscf); and

(2) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that exhibit greater than 5 percent opacity.

 [Back to Top](#)

#### **§60.254 Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles.**

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of this section, as applicable to the affected facility.

(1) Except as provided in paragraph (b)(3) of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

(2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

(3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of this section.

(c) The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal

dust emissions control plan that is appropriate for the site conditions as specified in paragraphs (c)(1) through (6) of this section.

(1) The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.

(2) For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable fugitive coal dust: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when the provisions of paragraph (c)(6) of this section are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.

(3) Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph (c)(2) of this section as specified in paragraphs (c)(3)(i) through (iv) of this section.

(i) The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph (c)(3)(ii) of this section.

(ii) The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternate control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph (c)(2).

(iii) While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions control plan that contains one of the control measures specifically identified in paragraph (c)(2) of this section while the petition is pending.

(iv) If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(4) The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority as specified in paragraphs (c)(4)(i) and (c)(4)(ii) of this section.

(i) The plan must be submitted to the Administrator or delegated authority prior to startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.

(ii) The plan must be revised as needed to reflect any changing conditions at the source. Such revisions must be dated and submitted to the Administrator or delegated authority before a source can operate pursuant to these revisions. The Administrator or delegated authority may also object to such revisions as specified in paragraph (c)(5) of this section.

(5) The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs (c)(5)(i) and (c)(5)(ii) of this section.

(i) The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.

(ii) If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegated authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph (c)(5) of this section, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.

(6) Where appropriate chemical dust suppression agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions, (1) only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)-compliant material safety data sheets (MSDS) are to be allowed; (2) the MSDS must be included in the fugitive coal dust emissions control plan; and (3) the owner or operator must consider and document in the fugitive coal dust emissions control plan the site-specific impacts associated with the use of such chemical dust suppressants.

[↑ Back to Top](#)

#### **§60.255 Performance tests and other compliance requirements.**

(a) An owner or operator of each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standards using the methods identified in §60.257.

(b) An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(1) and (2) of this section.

(1) For each affected facility subject to a PM, SO<sub>2</sub>, or combined NO<sub>x</sub> and CO emissions standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according the requirements in paragraphs (b)(1)(i) through (iii) of this section, as applicable.

(i) If the results of the most recent performance test demonstrate that emissions from the affected facility are greater than 50 percent of the applicable emissions standard, a new

performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(ii) If the results of the most recent performance test demonstrate that emissions from the affected facility are 50 percent or less of the applicable emissions standard, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.

(iii) An owner or operator of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

(2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of this section.

(i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.

(ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(iii) An owner or operator of an affected facility continuously monitoring scrubber parameters as specified in §60.256(b)(2) is exempt from the requirements in paragraphs (b)(2)(i) and (ii) if opacity performance tests are conducted concurrently with (or within a 60-minute period of) PM performance tests.

(c) If any affected coal processing and conveying equipment (e.g., breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in §60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards.

(d) An owner or operator of an affected facility (other than a thermal dryer) that commenced construction, reconstruction, or modification after April 28, 2008, is subject to a PM emission standard and uses a control device with a design controlled potential PM emissions rate of 1.0 Mg (1.1 tons) per year or less is exempted from the requirements of paragraphs (b)(1)(i) and (ii) of this section provided that the owner or operator meets all of the conditions specified in paragraphs (d)(1) through (3) of this section. This exemption does not apply to thermal dryers.

(1) PM emissions, as determined by the most recent performance test, are less than or equal to the applicable limit,

(2) The control device manufacturer's recommended maintenance procedures are followed, and

(3) All 6-minute average opacity readings from the most recent performance test are equal to or less than half the applicable opacity limit or the monitoring requirements in paragraphs (e) or (f) of this section are followed.

(e) For an owner or operator of a group of up to five of the same type of affected facilities that commenced construction, reconstruction, or modification after April 28, 2008, that are subject to PM emissions standards and use identical control devices, the Administrator or delegated authority may allow the owner or operator to use a single PM performance test for one of the affected control devices to demonstrate that the group of affected facilities is in compliance with the applicable emissions standards provided that the owner or operator meets all of the conditions specified in paragraphs (e)(1) through (3) of this section.

(1) PM emissions from the most recent performance test for each individual affected facility are 90 percent or less of the applicable PM standard;

(2) The manufacturer's recommended maintenance procedures are followed for each control device; and

(3) A performance test is conducted on each affected facility at least once every 5 calendar years.

(f) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, may elect to comply with the requirements in paragraph (f)(1) or (f)(2) of this section.

(1) Monitor visible emissions from each affected facility according to the requirements in paragraphs (f)(1)(i) through (iii) of this section.

(i) Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in §2.3 of Method 22 of appendix A-7 of this part. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of appendix A-4 of this part, performance test must be conducted within 45 operating days.

(ii) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(iii) Conduct a performance test using Method 9 of appendix A-4 of this part at least once every 5 calendar years for each affected facility.

(2) Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the Administrator or delegated authority. The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day. An approvable monitoring plan must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is

available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. The monitoring plan approved by the Administrator or delegated authority shall be implemented by the owner or operator.

(g) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, subject to a visible emissions standard under this subpart may install, operate, and maintain a continuous opacity monitoring system (COMS). Each COMS used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (g)(1) and (2) of this section.

(1) The COMS must meet Performance Specification 1 in 40 CFR part 60, appendix B.

(2) The COMS must comply with the quality assurance requirements in paragraphs (g)(2)(i) through (v) of this section.

(i) The owner or operator must automatically (intrinsic to the opacity monitor) check the zero and upscale (span) calibration drifts at least once daily. For particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of Performance Specification 1 in 40 CFR part 60, appendix B.

(ii) The owner or operator must adjust the zero and span whenever the 24-hour zero drift or 24-hour span drift exceeds 4 percent opacity. The COMS must allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. The optical surfaces exposed to the effluent gases must be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. For systems using automatic zero adjustments, the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(iii) The owner or operator must apply a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. All procedures applied must provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

(iv) Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the COMS must be in continuous operation and must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(v) The owner or operator must reduce all data from the COMS to 6-minute averages. Six-minute opacity averages must be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages. An arithmetic or integrated average of all data may be used.

(h) The owner or operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in paragraphs (h)(1) through (3) of this section.

(1) Conduct an initial performance test using Method 9 of appendix A-4 of this part according to the requirements in paragraphs (h)(1)(i) and(ii).

(i) Opacity readings shall be taken during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position.

(ii) Compliance with the applicable opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events.

(2) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(3) Conduct a performance test using Method 9 of appendix A-4 of this part at least once every 5 calendar years for each affected facility.

 [Back to Top](#)

#### **§60.256 Continuous monitoring requirements.**

(a) The owner or operator of each affected facility constructed, reconstructed, or modified on or before April 28, 2008, must meet the monitoring requirements specified in paragraphs (a)(1) and (2) of this section, as applicable to the affected facility.

(1) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

(i) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1.7^{\circ}\text{C}$  ( $\pm 3^{\circ}\text{F}$ ).

(ii) For affected facilities that use wet scrubber emission control equipment:

(A) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge.

(B) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator shall have discretion to grant requests for approval of alternative monitoring locations.

(2) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under §60.13(b).

(b) The owner or operator of each affected facility constructed, reconstructed, or modified after April 28, 2008, that has one or more mechanical vents must install, calibrate, maintain, and continuously operate the monitoring devices specified in paragraphs (b)(1) through (3) of this section, as applicable to the mechanical vent and any control device installed on the vent.

(1) For mechanical vents with fabric filters (baghouses) with design controlled potential PM emissions rates of 25 Mg (28 tons) per year or more, a bag leak detection system according to the requirements in paragraph (c) of this section.

(2) For mechanical vents with wet scrubbers, monitoring devices according to the requirements in paragraphs (b)(2)(i) through (iv) of this section.

(i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge.

(ii) A monitoring device for the continuous measurement of the water supply flow rate to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design water supply flow rate.

(iii) A monitoring device for the continuous measurement of the pH of the wet scrubber liquid. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design pH.

(iv) An average value for each monitoring parameter must be determined during each performance test. Each monitoring parameter must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

(3) For mechanical vents with control equipment other than wet scrubbers, a monitoring device for the continuous measurement of the reagent injection flow rate to the control equipment, as applicable. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design injection flow rate. An average reagent injection flow rate value must be determined during each performance test. The reagent injection flow rate must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

(c) Each bag leak detection system used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (c)(1) through (3) of this section.

(1) The bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (mg/dscm) (0.00044 grains per actual cubic foot (gr/acf)) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.



(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (c)(2)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator must develop and submit to the Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. This plan must be submitted to the Administrator or delegated authority 30 days prior to startup of the affected facility. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow the owner and operator more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (c)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the PM emissions.

[↑ Back to Top](#)

#### **§60.257 Test methods and procedures.**

(a) The owner or operator must determine compliance with the applicable opacity standards as specified in paragraphs (a)(1) through (3) of this section.

(1) Method 9 of appendix A-4 of this part and the procedures in §60.11 must be used to determine opacity, with the exceptions specified in paragraphs (a)(1)(i) and (ii).

(i) The duration of the Method 9 of appendix A-4 of this part performance test shall be 1 hour (ten 6-minute averages).

(ii) If, during the initial 30 minutes of the observation of a Method 9 of appendix A-4 of this part performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

(2) To determine opacity for fugitive coal dust emissions sources, the additional requirements specified in paragraphs (a)(2)(i) through (iii) must be used.

(i) The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.

(ii) The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.

(iii) The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.

(3) A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in paragraphs (a)(3)(i) through (iii) of this section are met.

(i) No more than three emissions points may be read concurrently.

(ii) All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

(b) The owner or operator must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emissions standards specified in §60.252 according to the requirements in §60.8 using the applicable test methods and procedures in paragraphs (b)(1) through (8) of this section.

(1) Method 1 or 1A of appendix A-4 of this part shall be used to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(2) Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A-4 of this part shall be used to determine the volumetric flow rate of the stack gas.

(3) Method 3, 3A, or 3B of appendix A-4 of this part shall be used to determine the dry molecular weight of the stack gas. The owner or operator may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses (incorporated by reference—see §60.17) as an alternative to Method 3B of appendix A-2 of this part.

(4) Method 4 of appendix A-4 of this part shall be used to determine the moisture content of the stack gas.

(5) Method 5, 5B or 5D of appendix A-4 of this part or Method 17 of appendix A-7 of this part shall be used to determine the PM concentration as follows:

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. A minimum of three valid test runs are needed to comprise a PM performance test.

(ii) Method 5 of appendix A of this part shall be used only to test emissions from affected facilities without wet flue gas desulfurization (FGD) systems.

(iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.

(iv) Method 5D of appendix A-4 of this part shall be used for positive pressure fabric filters and other similar applications (e.g., stub stacks and roof vents).

(v) Method 17 of appendix A-6 of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B of appendix A-3 of this part may be used in Method 17 of appendix A-6 of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A-6 of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

(6) Method 6, 6A, or 6C of appendix A-4 of this part shall be used to determine the SO<sub>2</sub> concentration. A minimum of three valid test runs are needed to comprise an SO<sub>2</sub> performance test.

(7) Method 7 or 7E of appendix A-4 of this part shall be used to determine the NO<sub>x</sub> concentration. A minimum of three valid test runs are needed to comprise an NO<sub>x</sub> performance test.

(8) Method 10 of appendix A-4 of this part shall be used to determine the CO concentration. A minimum of three valid test runs are needed to comprise a CO performance test. CO performance tests are conducted concurrently (or within a 60-minute period) with NO<sub>x</sub> performance tests.

 [Back to Top](#)

### **§60.258 Reporting and recordkeeping.**

(a) The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:

(1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.

(2) The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.

(3) The amount and type of coal processed each calendar month.

(4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.

(5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.

(6) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well.

(7) For each bag leak detection system, the owner or operator must keep the records specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(8) A copy of any applicable monitoring plan for a digital opacity compliance system and monthly certification that the plan was implemented as described. Any variance from plan, if any, shall be noted.

(9) During a performance test of a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the scrubber pressure loss, water supply flow rate, and pH of the wet scrubber liquid.

(10) During a performance test of control equipment other than a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the reagent injection flow rate, as applicable.

(b) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow:

(1) The owner or operator of an affected facility with a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the scrubber pressure loss, water supply flow rate, or pH of the wet scrubber liquid vary by more than 10 percent from the average determined during the most recent performance test.

(2) The owner or operator of an affected facility with control equipment other than a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the reagent injection flow rate, as applicable, vary by more than 10 percent from the average determined during the most recent performance test.

(3) All 6-minute average opacities that exceed the applicable standard.

(c) The owner or operator of an affected facility shall submit the results of initial performance tests to the Administrator or delegated authority, consistent with the provisions of section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. The owner or operator electing to comply with section 60.255(d) shall also include information which demonstrates that the control devices are identical.

(d) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

 [Back to Top](#)

## ***Appendix B***

***40 C.F.R. Part 60 Subpart HH—  
Standards of Performance  
for Lime Manufacturing Plants***

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## Subpart HH—Standards of Performance for Lime Manufacturing Plants

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### Contents

§60.340 Applicability and designation of affected facility.

§60.341 Definitions.

§60.342 Standard for particulate matter.

§60.343 Monitoring of emissions and operations.

§60.344 Test methods and procedures.

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SOURCE: 49 FR 18080, Apr. 26, 1984, unless otherwise noted.

[↑ Back to Top](#)

### **§60.340 Applicability and designation of affected facility.**

(a) The provisions of this subpart are applicable to each rotary lime kiln used in the manufacture of lime.

(b) The provisions of this subpart are not applicable to facilities used in the manufacture of lime at kraft pulp mills.

(c) Any facility under paragraph (a) of this section that commences construction or modification after May 3, 1977, is subject to the requirements of this subpart.

[↑ Back to Top](#)

### **§60.341 Definitions.**

As used in this subpart, all terms not defined herein shall have the same meaning given them in the Act and in the General Provisions.

(a) *Lime manufacturing plant* means any plant which uses a rotary lime kiln to produce lime product from limestone by calcination.

(b) *Lime product* means the product of the calcination process including, but not limited to, calcitic lime, dolomitic lime, and dead-burned dolomite.

(c) *Positive-pressure fabric filter* means a fabric filter with the fans on the upstream side of the filter bags.



(d) *Rotary lime kiln* means a unit with an inclined rotating drum that is used to produce a lime product from limestone by calcination.

(e) *Stone feed* means limestone feedstock and millscale or other iron oxide additives that become part of the product.

[↑ Back to Top](#)

#### **§60.342 Standard for particulate matter.**

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which:

(1) Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.

(2) Exhibit greater than 15 percent opacity when exiting from a dry emission control device.

[↑ Back to Top](#)

#### **§60.343 Monitoring of emissions and operations.**

(a) The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system, except as provided in paragraphs (b) and (c) of this section, to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from any rotary lime kiln. The span of this system shall be set at 40 percent opacity.

(b) The owner or operator of any rotary lime kiln having a control device with a multiple stack exhaust or a roof monitor may, in lieu of the continuous opacity monitoring requirement of §60.343(a), monitor visible emissions at least once per day of operation by using a certified visible emissions observer who, for each site where visible emissions are observed, will perform three Method 9 tests and record the results. Visible emission observations shall occur during normal operation of the rotary lime kiln at least once per day. For at least three 6-minute periods, the opacity shall be recorded for any point(s) where visible emissions are observed, and the corresponding feed rate of the kiln shall also be recorded. Records shall be maintained of any 6-minute average that is in excess of the emissions specified in §60.342(a) of this subpart.

(c) The owner or operator of any rotary lime kiln using a wet scrubbing emission control device subject to the provisions of this subpart shall not be required to monitor the opacity of the gases discharged as required in paragraph (a) of this section, but shall install, calibrate, maintain, operate, and record the resultant information from the following continuous monitoring devices:

(1) A monitoring device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be accurate within  $\pm 250$  pascals (one inch of water).

(2) A monitoring device for continuous measurement of the scrubbing liquid supply pressure to the control device. The monitoring device must be accurate within  $\pm 5$  percent of the design scrubbing liquid supply pressure.

(d) For the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used must be accurate to within  $\pm 5$  percent of the mass rate over its operating range.

(e) For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent or, in the case of wet scrubbers, any period in which the scrubber pressure drop or scrubbing liquid supply pressure is greater than 30 percent below that established during the performance test. If visible emission observations are made according to paragraph (b) of this section, reports of excess emissions shall be submitted semiannually.

[49 FR 18080, Apr. 26, 1984, as amended at 52 FR 4773, Feb. 17, 1987; 54 FR 6675, Feb. 14, 1989; 65 FR 61760, Oct. 17, 2000]

[↑ Back to Top](#)

#### **§60.344 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.342(a) as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (c_s Q_{sd})/PK$$

where:

E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.

$c_s$  = concentration of particulate matter, g/dscm (gr/dscf).

$Q_{sd}$  = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P = stone feed rate, Mg/hr (ton/hr).

K = conversion factor, 1000 g/kg (7000 gr/lb).

(2) Method 5 shall be used at negative-pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration ( $c_s$ ) and the volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

(3) The monitoring device of §60.343(d) shall be used to determine the stone feed rate (P) for each run.

(4) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c) During the particulate matter run, the owner or operator shall use the monitoring devices in §60.343(c)(1) and (2) to determine the average pressure loss of the gas stream through the scrubber and the average scrubbing liquid supply pressure.

[54 FR 6675, Feb. 14, 1989, as amended at 65 FR 61760, Oct. 17, 2000]

 [Back to Top](#)

## *Appendix C*

*40 C.F.R. Part 60 Subpart OOO—  
Standards of Performance  
for Nonmetallic Mineral Processing Plants*

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## Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

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### Contents

§60.670 Applicability and designation of affected facility.

§60.671 Definitions.

§60.672 Standard for particulate matter (PM).

§60.673 Reconstruction.

§60.674 Monitoring of operations.

§60.675 Test methods and procedures.

§60.676 Reporting and recordkeeping.

Table 1 to Subpart OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

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SOURCE: 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

[↑ Back to Top](#)

### **§60.670 Applicability and designation of affected facility.**

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in §60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

[↑ Back to Top](#)

### **§60.671 Definitions.**

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

*Bagging operation* means the mechanical process by which bags are filled with nonmetallic minerals.

*Belt conveyor* means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

*Bucket elevator* means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

*Building* means any frame structure with a roof.

*Capacity* means the cumulative rated capacity of all initial crushers that are part of the plant.

*Capture system* means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

*Control device* means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

*Conveying system* means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

*Crush or Crushing* means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

*Crusher* means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

*Enclosed truck or railcar loading station* means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

*Fixed plant* means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

*Fugitive emission* means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

*Grinding mill* means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

*Initial crusher* means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

*Nonmetallic mineral* means any of the following minerals or any mixture of which the majority is any of the following minerals:

(1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(2) Sand and Gravel.

(3) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(4) Rock Salt.

(5) Gypsum (natural or synthetic).

- (6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
- (7) Pumice.
- (8) Gilsonite.
- (9) Talc and Pyrophyllite.
- (10) Boron, including Borax, Kernite, and Colemanite.
- (11) Barite.
- (12) Fluorospars.
- (13) Feldspar.
- (14) Diatomite.
- (15) Perlite.
- (16) Vermiculite.
- (17) Mica.
- (18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

*Nonmetallic mineral processing plant* means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

*Portable plant* means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

*Production line* means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

*Saturated material* means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be “saturated” for purposes of this definition.

*Screening operation* means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static



(non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

*Seasonal shut down* means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

*Size* means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

*Stack emission* means the particulate matter that is released to the atmosphere from a capture system.

*Storage bin* means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

*Transfer point* means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

*Truck dumping* means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

*Vent* means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

*Wet material processing operation(s)* means any of the following:

(1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or

(2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

*Wet mining operation* means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

*Wet screening operation* means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

 [Back to Top](#)

## **§60.672 Standard for particulate matter (PM).**

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

[↑ Back to Top](#)

### **§60.673 Reconstruction.**

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

[↑ Back to Top](#)

#### **§60.674 Monitoring of operations.**

(a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 250$  pascals  $\pm 1$  inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 5$  percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, appendix A-7). The Method 22 (40 CFR part 60, appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse

to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR part 60, appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.*, using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous

compliance requirements in row 1 items (i) through (iii) of table 6 to subpart AAAAA of 40 CFR part 63.

[↑ Back to Top](#)

#### **§60.675 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 of appendix A-4 of this part and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of appendix A-4 of this part and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of appendix A-4 of this part, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9 (40 CFR part 60, appendix A-4), the duration of the Method 9 (40 CFR part 60, appendix A-4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, appendix A-4) performance test according to this section and §60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, appendix A-4) performance test according to this section and §60.11 to show compliance with the opacity limit in §60.672(e)(1).

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of appendix A-1 of this part [*i.e.*, velocity head <1.3 mm H<sub>2</sub>O (0.05 in. H<sub>2</sub>O)] and referred to in EPA Method 5 of appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (*e.g.*, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$V_a = \frac{Q_f}{A_v}$$

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Where:

$V_a$  = average building vent velocity (feet per minute);

$Q_f$  = average fan flow rate (cubic feet per minute); and

$A_v$  = area of building vent and measurement location (square feet).

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

[↑ Back to Top](#)

### **§60.676 Reporting and recordkeeping.**

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:



- (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and
  - (ii) The rated capacity in tons per hour of the replacement equipment.
- (2) For a screening operation:
- (i) The total surface area of the top screen of the existing screening operation being replaced and
  - (ii) The total surface area of the top screen of the replacement screening operation.
- (3) For a conveyor belt:
- (i) The width of the existing belt being replaced and
  - (ii) The width of the replacement conveyor belt.
- (4) For a storage bin:
- (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and
  - (ii) The rated capacity in megagrams or tons of replacement storage bins.
- (b)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.
- (2) For each bag leak detection system installed and operated according to §60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.
- (i) Records of the bag leak detection system output;
  - (ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
  - (iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.
- (3) The owner or operator of each affected facility demonstrating compliance according to §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in §60.672(b) and the emission test requirements of §60.11.

(h) The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

[↑ Back to Top](#)

#### **Table 1 to Subpart OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO**

<b>Subpart A reference</b>	<b>Applies to subpart OOO</b>	<b>Explanation</b>
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675(c)), Method 9 (40 CFR part 60, appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

[↑ Back to Top](#)

**Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems**

<b>For * * *</b>	<b>The owner or operator must meet a PM limit of * * *</b>	<b>And the owner or operator must meet an opacity limit of * * *</b>	<b>The owner or operator must demonstrate compliance with these limits by conducting * * *</b>
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983	0.05 g/dscm (0.022 gr/dscf) <sup>a</sup>	7 percent for dry control devices <sup>b</sup>	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and

but before April 22, 2008			Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) <sup>a</sup>	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c), (d), or (e) and §60.676(b).

<sup>a</sup>Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

<sup>b</sup>The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

[↑ Back to Top](#)

**Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits**

<b>For * * *</b>	<b>The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in</b>	<b>The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *</b>	<b>The owner or operator must demonstrate compliance with these limits by conducting * * *</b>
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	§§60.670 and 60.671) * * *		
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
			A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.

[↑ Back to Top](#)

## ***Appendix D***

***40 C.F.R. Part 60 Subpart III—  
Standards of Performance for  
Stationary Compression Ignition  
Internal Combustion Engines***

## Title 40: Protection of Environment

### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES (CONTINUED)

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#### Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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##### Contents

###### WHAT THIS SUBPART COVERS

§60.4200 Am I subject to this subpart?

###### EMISSION STANDARDS FOR MANUFACTURERS

§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

§60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

###### EMISSION STANDARDS FOR OWNERS AND OPERATORS

§60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

###### FUEL REQUIREMENTS FOR OWNERS AND OPERATORS

§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

###### OTHER REQUIREMENTS FOR OWNERS AND OPERATORS

§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

###### COMPLIANCE REQUIREMENTS

§60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

###### TESTING REQUIREMENTS FOR OWNERS AND OPERATORS

§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

## NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

## SPECIAL REQUIREMENTS

§60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

§60.4216 What requirements must I meet for engines used in Alaska?

§60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

## GENERAL PROVISIONS

§60.4218 What parts of the General Provisions apply to me?

## DEFINITIONS

§60.4219 What definitions apply to this subpart?

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

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SOURCE: 71 FR 39172, July 11, 2006, unless otherwise noted.

[↑ Back to Top](#)

### What This Subpart Covers

[↑ Back to Top](#)

#### **§60.4200 Am I subject to this subpart?**

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:



- (i) 2007 or later, for engines that are not fire pump engines;
  - (ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.
- (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
- (i) Manufactured after April 1, 2006, and are not fire pump engines, or
  - (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
- (3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.
- (4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.
- (b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.
- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.
- (e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

 [Back to Top](#)

#### **Emission Standards for Manufacturers**

**§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

(h) Stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with auxiliary emission control devices (AECDs) as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011; 81 FR 44219, July 7, 2016]

 [Back to Top](#)

**§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016]

 [Back to Top](#)

**§60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

[↑ Back to Top](#)

## Emission Standards for Owners and Operators

[↑ Back to Top](#)

### **§60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;
  - (ii)  $9.0 \cdot n^{-0.20}$  g/KW-hr ( $6.7 \cdot n^{-0.20}$  g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and
  - (iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.
- (4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).
- (d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.
- (e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.
- (f) Owners and operators of stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with AECDs as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016]

[↑ Back to Top](#)

**§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

- (a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

[↑ Back to Top](#)

**§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**



Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

 [Back to Top](#)

### **Fuel Requirements for Owners and Operators**

 [Back to Top](#)

#### **§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

 [Back to Top](#)

### **Other Requirements for Owners and Operators**

 [Back to Top](#)

#### **§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?**

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

 [Back to Top](#)

**§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

 [Back to Top](#)

### **Compliance Requirements**

 [Back to Top](#)

#### **§60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §§60.4201(a) through (c) and 60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §§60.4201(d) and (e) and 60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion

engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §60.4201 or §60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

(j) Stationary CI ICE manufacturers may equip their stationary CI internal combustion engines certified to the emission standards in 40 CFR part 1039 with AECDs for qualified emergency situations according to the requirements of 40 CFR 1039.665. Manufacturers of stationary CI ICE equipped with AECDs as allowed by 40 CFR 1039.665 must meet all of the requirements in 40 CFR 1039.665 that apply to manufacturers. Manufacturers must document that the engine complies with the Tier 1 standard in 40 CFR 89.112 when the AECD is activated. Manufacturers must provide any relevant testing, engineering analysis, or other information in sufficient detail to support such statement when applying for certification (including amending an existing certificate) of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 81 FR 44219, July 7, 2016]

 [Back to Top](#)

**§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(a) or §60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.



(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the

emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

 [Back to Top](#)

### Testing Requirements for Owners and Operators

 [Back to Top](#)

#### **§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per

cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = 1.25 \times \text{STD} - 0.04$$

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Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

**§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$R = \frac{C_i - C_o}{C_i} \times 100 = R \quad \text{Eq. 2}$$

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Where:

$C_i$  = concentration of  $\text{NO}_x$  or PM at the control device inlet,

$C_o$  = concentration of  $\text{NO}_x$  or PM at the control device outlet, and

$R$  = percent reduction of  $\text{NO}_x$  or PM emissions.

(2) You must normalize the  $\text{NO}_x$  or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen ( $\text{O}_2$ ) using Equation 3 of this section, or an equivalent percent carbon dioxide ( $\text{CO}_2$ ) using the procedures described in paragraph (d)(3) of this section.

$$C' = C \frac{5.0}{20.9 - \text{O}_2} \quad \text{Eq. 3}$$

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Where:

$C_{adj}$  = Calculated  $NO_x$  or PM concentration adjusted to 15 percent  $O_2$ .

$C_d$  = Measured concentration of  $NO_x$  or PM, uncorrected.

$5.9 = 20.9$  percent  $O_2$ –15 percent  $O_2$ , the defined  $O_2$  correction value, percent.

% $O_2$  = Measured  $O_2$  concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent  $O_2$  and  $CO_2$  concentration is measured in lieu of  $O_2$  concentration measurement, a  $CO_2$  correction factor is needed. Calculate the  $CO_2$  correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{19 \sum V_{O_2}}{F_d} \quad \text{(Eq. 4)}$$

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Where:

$F_o$  = Fuel factor based on the ratio of  $O_2$  volume to the ultimate  $CO_2$  volume produced by the fuel at zero percent excess air.

$0.209$  = Fraction of air that is  $O_2$ , percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

$F_c$  = Ratio of the volume of  $CO_2$  produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

(ii) Calculate the  $CO_2$  correction factor for correcting measurement data to 15 percent  $O_2$ , as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad \text{(Eq. 5)}$$

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Where:

$X_{CO_2}$  =  $CO_2$  correction factor, percent.

$5.9 = 20.9$  percent  $O_2$ –15 percent  $O_2$ , the defined  $O_2$  correction value, percent.

(iii) Calculate the NO<sub>x</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

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Where:

C<sub>adj</sub> = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

C<sub>d</sub> = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.

(e) To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

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Where:

ER = Emission rate in grams per KW-hour.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in ppm.

1.912x10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

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Where:

ER = Emission rate in grams per KW-hour.

$C_{adj}$  = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

 [Back to Top](#)

### Notification, Reports, and Records for Owners and Operators

 [Back to Top](#)

#### **§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.



(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

(e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

[↑ Back to Top](#)

### Special Requirements

[↑ Back to Top](#)

#### **§60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?**

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $45 \cdot n^{-0.2}$  g/KW-hr ( $34 \cdot n^{-0.2}$  g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii)  $44 \cdot n^{-0.23}$  g/KW-hr ( $33 \cdot n^{-0.23}$  g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

 [Back to Top](#)

#### **§60.4216 What requirements must I meet for engines used in Alaska?**

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in §§60.4201(f) and 60.4202(g).

(c) Manufacturers, owners, and operators of stationary CI ICE that are located in remote areas of Alaska may choose to meet the applicable emission standards for emergency engines in §§60.4202 and 60.4205, and not those for non-emergency engines in §§60.4201 and 60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine must have that engine certified as meeting at least the Tier 3 PM standards in 40 CFR 89.112 or 40 CFR 1042.101.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in remote areas of Alaska.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011, as amended at 81 FR 44219, July 7, 2016; 84 FR 61568, Nov. 13, 2019]

 [Back to Top](#)

#### **§60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?**

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

 [Back to Top](#)

### **General Provisions**

 [Back to Top](#)

#### **§60.4218 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

 [Back to Top](#)

### **Definitions**

 [Back to Top](#)

#### **§60.4219 What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

*Alaska Railbelt Grid* means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric

Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

*Certified emissions life* means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

*Combustion turbine* means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Date of manufacture* means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

*Diesel particulate filter* means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

*Emergency stationary internal combustion engine* means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.

*Fire pump engine* means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

*Freshly manufactured engine* means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

*Installed* means the engine is placed and secured at the location where it is intended to be operated.

*Manufacturer* has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

*Maximum engine power* means maximum engine power as defined in 40 CFR 1039.801.

*Model year* means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year

for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

*Reciprocating internal combustion engine* means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

*Remote areas of Alaska* means areas of Alaska that meet either paragraph (1) or (2) of this definition.

(1) Areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS).

(2) Areas of Alaska that meet all of the following criteria:

(i) The only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI ICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary CI ICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the source is less than 12 megawatts, or the stationary CI ICE is used exclusively for backup power for renewable energy.

*Rotary internal combustion engine* means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

*Spark ignition* means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a

nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

*Subpart* means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

[↑ Back to Top](#)

**Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder**

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO <sub>x</sub>	HC	NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

[↑ Back to Top](#)

**Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder**

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO <sub>x</sub> + NMHC	CO	PM
KW<8 (HP<11)	2008 +	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008 +	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008 +	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

[↑ Back to Top](#)

**Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines**

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to
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	<b>§60.4202(d)<sup>1</sup></b>
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

<sup>1</sup>Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

[↑ Back to Top](#)

**Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines**

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO <sub>x</sub>	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011 +	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.30 (0.22)

37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 + <sup>1</sup>	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 + <sup>1</sup>	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010 + <sup>2</sup>	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 + <sup>3</sup>	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 + <sup>3</sup>	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008 +	6.4 (4.8)		0.20 (0.15)

<sup>1</sup>For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

<sup>2</sup>For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

<sup>3</sup>In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

[↑ Back to Top](#)

**Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines**

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

[↑ Back to Top](#)

**Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines**

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed <sup>1</sup>	Torque (percent) <sup>2</sup>	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

<sup>1</sup>Engine speed: ±2 percent of point.

<sup>2</sup>Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

[↑ Back to Top](#)

**Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder**

As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:

Each	Complying with the	You must	Using	According to the following
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	requirement to			requirements
1. Stationary CI internal combustion engine with a displacement of $\geq 30$ liters per cylinder	a. Reduce $\text{NO}_x$ emissions by 90 percent or more;	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For $\text{NO}_x$ , $\text{O}_2$ , and moisture measurement, ducts $\leq 6$ inches in diameter may be sampled at a single point located at the duct centroid and ducts $>6$ and $\leq 12$ inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is $>12$ inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure $\text{O}_2$ at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine $\text{O}_2$ concentration must be made at the same time as the measurements for $\text{NO}_x$ concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63,	(c) Measurements to determine moisture content must be made at the same time as the measurements for $\text{NO}_x$

			appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	concentration.
		iv. Measure NO <sub>x</sub> at the inlet and outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO <sub>x</sub> concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO <sub>x</sub> in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine;		(a) For NO <sub>x</sub> , O <sub>2</sub> , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section

				8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurement for NO <sub>x</sub> concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO <sub>x</sub> concentration.
		iv. Measure NO <sub>x</sub> at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO <sub>x</sub> concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as

			A-2	the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.

		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
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[79 FR 11251, Feb. 27, 2014]

[↑ Back to Top](#)

**Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII**

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

<b>General Provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	



§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of ( $\geq$ 30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

[↑ Back to Top](#)

## ***Appendix E***

***40 C.F.R. Part 63 Subpart AAAAA—  
National Emissions Standards for  
Hazardous Air Pollutants for  
Lime Manufacturing Plants***

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## **Subpart AAAAA—National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants**

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### **Contents**

#### What This Subpart Covers

- §63.7080 What is the purpose of this subpart?
- §63.7081 Am I subject to this subpart?
- §63.7082 What parts of my plant does this subpart cover?
- §63.7083 When do I have to comply with this subpart?

#### Emission Limitations

- §63.7090 What emission limitations must I meet?

#### General Compliance Requirements

- §63.7100 What are my general requirements for complying with this subpart?

#### Testing and Initial Compliance Requirements

- §63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?
- §63.7111 When must I conduct subsequent performance tests?
- §63.7112 What performance tests, design evaluations, and other procedures must I use?
- §63.7113 What are my monitoring installation, operation, and maintenance requirements?
- §63.7114 How do I demonstrate initial compliance with the emission limitations standard?

#### Continuous Compliance Requirements

- §63.7120 How do I monitor and collect data to demonstrate continuous compliance?
- §63.7121 How do I demonstrate continuous compliance with the emission limitations standard?

## Notification, Reports, and Records

§63.7130 What notifications must I submit and when?

§63.7131 What reports must I submit and when?

§63.7132 What records must I keep?

§63.7133 In what form and for how long must I keep my records?

## Other Requirements and Information

§63.7140 What parts of the General Provisions apply to me?

§63.7141 Who implements and enforces this subpart?

§63.7142 What are the requirements for claiming area source status?

§63.7143 What definitions apply to this subpart?

Table 1 to Subpart AAAAA of Part 63—Emission Limits

Table 2 to Subpart AAAAA of Part 63—Operating Limits

Table 3 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits

Table 4 to Subpart AAAAA of Part 63—Requirements for Performance Tests

Table 5 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits

Table 6 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits

Table 7 to Subpart AAAAA of Part 63—Requirements for Reports

Table 8 to Subpart AAAAA of Part 63—Applicability of General Provisions to Subpart AAAAA

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SOURCE: 69 FR 416, Jan. 5, 2004, unless otherwise noted.

[↑ Back to Top](#)

## WHAT THIS SUBPART COVERS

[↑ Back to Top](#)

### **§63.7080 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for lime manufacturing plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

[↑ Back to Top](#)

### **§63.7081 Am I subject to this subpart?**

(a) You are subject to this subpart if you own or operate a lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions, unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, beet sugar manufacturing plant, or only processes sludge containing calcium carbonate from water softening processes.

(1) An LMP is an establishment engaged in the manufacture of lime product (calcium oxide, calcium oxide with magnesium oxide, or dead burned dolomite) by calcination of limestone, dolomite, shells or other calcareous substances.

(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site.

(b) [Reserved]

[↑ Back to Top](#)

### **§63.7082 What parts of my plant does this subpart cover?**

(a) This subpart applies to each existing or new lime kiln(s) and their associated cooler(s), and processed stone handling (PSH) operations system(s) located at an LMP that is a major source.

(b) A new lime kiln is a lime kiln, and (if applicable) its associated lime cooler, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.

(c) A new PSH operations system is the equipment in paragraph (g) of this section, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.

(d) A lime kiln or PSH operations system is reconstructed if it meets the criteria for reconstruction defined in §63.2.

(e) An existing lime kiln is any lime kiln, and (if applicable) its associated lime cooler, that does not meet the definition of a new kiln of paragraph (b) of this section.

(f) An existing PSH operations system is any PSH operations system that does not meet the definition of a new PSH operations system in paragraph (c) of this section.

(g) A PSH operations system includes all equipment associated with PSH operations beginning at the processed stone storage bin(s) or open storage pile(s) and ending where the processed stone is fed into the kiln. It includes man-made processed stone storage bins (but not open processed stone storage piles), conveying system transfer points, bulk loading or unloading systems, screening operations, surge bins, bucket elevators, and belt conveyors. No other materials processing operations are subject to this subpart.

(h) Nuisance dust collectors on lime coolers are part of the lime materials processing operations and are not covered by this subpart.

(i) Lime hydrators are not subject to this subpart.

(j) Open material storage piles are not subject to this subpart.

[↑ Back to Top](#)

### **§63.7083 When do I have to comply with this subpart?**

(a) If you have a new affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(1) If you start up your affected source before January 5, 2004, you must comply with the emission limitations no later than January 5, 2004, and you must have completed all applicable performance tests no later than July 5, 2004.

(2) If you start up your affected source after January 5, 2004, then you must comply with the emission limitations for new affected sources upon startup of your affected source and you must have completed all applicable performance tests no later than 180 days after startup.

(b) If you have an existing affected source, you must comply with the applicable emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than January 5, 2007.

(c) If you have an LMP that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the deadlines specified in paragraphs (c)(1) and (2) of this section apply.

(1) New affected sources at your LMP you must be in compliance with this subpart upon startup.

(2) Existing affected sources at your LMP must be in compliance with this subpart within 3 years after your source becomes a major source of HAP.

(d) You must meet the notification requirements in §63.7130 according to the schedule in §63.7130 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

[↑ Back to Top](#)

## **EMISSION LIMITATIONS**

[↑ Back to Top](#)

### **§63.7090 What emission limitations must I meet?**

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

[↑ Back to Top](#)

## **GENERAL COMPLIANCE REQUIREMENTS**

[↑ Back to Top](#)

### **§63.7100 What are my general requirements for complying with this subpart?**

(a) After your initial compliance date, you must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must be in compliance with the opacity and visible emission (VE) limits in this subpart during the times specified in §63.6(h)(1).

(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(d) You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 CFR part 70 or 40 CFR part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.

(2) A monitoring schedule for each emission unit.

(3) Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1 and 2 to this subpart, respectively.

(4) Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:

(i) Calibration and certification of accuracy of each monitoring device;

(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

(iii) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), and (4)(ii); and

(iv) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d).

(5) Procedures for monitoring process and control device parameters.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 2 to this subpart, including:

(i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.

(7) A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(e) You must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

[69 FR 416, Jan. 5, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

[↑ Back to Top](#)

## TESTING AND INITIAL COMPLIANCE REQUIREMENTS

[↑ Back to Top](#)

### **§63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?**

(a) If you have an existing affected source, you must complete all applicable performance tests within January 5, 2007, according to the provisions in §§63.7(a)(2) and 63.7114.

(b) If you have a new affected source, and commenced construction or reconstruction between December 20, 2002, and January 5, 2004, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than 180 calendar days after January 5, 2004 or within 180 calendar days after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.

(c) If you commenced construction or reconstruction between December 20, 2002, and January 5, 2004, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a demonstration of compliance with the promulgated emission limitation within January 5, 2007 or after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.

(d) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within existing affected sources at LMP begins at 12:01 a.m. on the compliance date for existing affected sources, that is, the day following completion of the initial compliance demonstration, and ends at 3:01 a.m. on the same day.

(e) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within new or reconstructed affected sources at LMP begins at 12:01 a.m. on the day following completion of the initial compliance demonstration, as required in paragraphs (b) and (c) of this section, and ends at 3:01 a.m. on the same day.

[↑ Back to Top](#)

### **§63.7111 When must I conduct subsequent performance tests?**

You must conduct a performance test within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.



[↑ Back to Top](#)

**§63.7112 What performance tests, design evaluations, and other procedures must I use?**

- (a) You must conduct each performance test in Table 4 to this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements in §63.7(e)(1) and under the specific conditions specified in Table 4 to this subpart.
- (c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).
- (d) Except for opacity and VE observations, you must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
- (e) The emission rate of particulate matter (PM) from each lime kiln (and each lime cooler if there is a separate exhaust to the atmosphere from the lime cooler) must be computed for each run using Equation 1 of this section:

$$E = (C_k Q_k + C_c Q_c) / PK \quad (Eq. 1)$$

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Where:

E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.

C<sub>k</sub> = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

Q<sub>k</sub> = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).

C<sub>c</sub> = Concentration of PM in the cooler effluent, grain/dscf. This value is zero if there is not a separate cooler exhaust to the atmosphere.

Q<sub>c</sub> = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.

P = Stone feed rate, tons per hour (ton/hr).

K = Conversion factor, 7000 grains per pound (grains/lb).

(f)(1) If you choose to meet a weighted average emission limit as specified in item 4 of Table 1 to this subpart, you must calculate a combined particulate emission rate from all kilns and coolers within your LMP using Equation 2 of this section:

$$E_T = \frac{\sum_{i=1}^n E_i P_i}{\sum_{i=1}^n P_i} \quad (Eq. 2)$$

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Where:

$E_T$  = Emission rate of PM from all kilns and coolers, lb/ton of stone feed.

$E_i$  = Emission rate of PM from kiln i, or from kiln/cooler combination i, lb/ton of stone feed.

$P_i$  = Stone feed rate to kiln i, ton/hr.

$n$  = Number of kilns you wish to include in averaging.

(2) You do not have to include every kiln in this calculation, only include kilns you wish to average. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.

(g) The weighted average PM emission limit from all kilns and coolers for which you are averaging must be calculated using Equation 3 of this section:

$$E_{TN} = \frac{\sum_{j=1}^m E_j P_j}{\sum_{j=1}^m P_j} \quad (Eq. 3)$$

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Where:

$E_{TN}$  = Weighted average PM emission limit for all kilns and coolers being included in averaging at the LMP, lb/ton of stone feed.

$E_j$  = PM emission limit (0.10 or 0.12) for kiln j, or for kiln/cooler combination j, lb/ton of stone feed.

$P_j$  = Stone feed rate to kiln j, ton/hr.

$m$  = Number of kilns and kiln/cooler combinations you are averaging at your LMP. You must include the same kilns in the calculation of  $E_T$  and  $E_{TN}$ . Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.

(h) Performance test results must be documented in complete test reports that contain the information required by paragraphs (h)(1) through (10) of this section, as well as all other relevant information. The plan to be followed during testing must be made available to the Administrator at least 60 days prior to testing.

(1) A brief description of the process and the air pollution control system;

(2) Sampling location description(s);

(3) A description of sampling and analytical procedures and any modifications to standard procedures;

(4) Test results, including opacity;

(5) Quality assurance procedures and results;

(6) Records of operating conditions during the test, preparation of standards, and calibration procedures;

(7) Raw data sheets for field sampling and field and laboratory analyses;

- (8) Documentation of calculations;
- (9) All data recorded and used to establish operating limits; and
- (10) Any other information required by the test method.

(i) [Reserved]

(j) You must establish any applicable 3-hour block average operating limit indicated in Table 2 to this subpart according to the applicable requirements in Table 3 to this subpart and paragraphs (j)(1) through (4) of this section.

(1) Continuously record the parameter during the PM performance test and include the parameter record(s) in the performance test report.

(2) Determine the average parameter value for each 15-minute period of each test run.

(3) Calculate the test run average for the parameter by taking the average of all the 15-minute parameter values for the run.

(4) Calculate the 3-hour operating limit by taking the average of the three test run averages.

(k) For each building enclosing any PSH operations that is subject to a VE limit, you must conduct a VE check according to item 18 in Table 4 to this subpart, and in accordance with paragraphs (k)(1) through (3) of this section.

(1) Conduct visual inspections that consist of a visual survey of the building over the test period to identify if there are VE, other than condensed water vapor.

(2) Select a position at least 15 but not more 1,320 feet from each side of the building with the sun or other light source generally at your back.

(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 in appendix A to part 60 of this chapter.

(l) When determining compliance with the opacity standards for fugitive emissions from PSH operations in item 7 of Table 1 to this subpart, you must conduct EPA Method 9 in appendix A to part 60 of this chapter according to item 17 in Table 4 to this subpart, and in accordance with paragraphs (l)(1) through (3) of this section.

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun must be followed.

(3) If you use wet dust suppression to control PM from PSH operations, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter

emissions and is not to be considered VE. When a water mist of this nature is present, you must observe emissions at a point in the plume where the mist is no longer visible.

[↑ Back to Top](#)

### **§63.7113 What are my monitoring installation, operation, and maintenance requirements?**

(a) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to your OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of this section, and you must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of this section

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

(2) To calculate a valid hourly value, you must have at least four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according your OM&M plan, and use all valid data.

(3) To calculate the average for each 3-hour block averaging period, you must use all valid data, and you must have at least 66 percent of the hourly averages for that period using only hourly average values that are based on valid data (*i.e.*, not from out-of-control periods).

(4) You must conduct a performance evaluation of each CPMS in accordance with your OM&M plan.

(5) You must continuously operate and maintain the CPMS according to the OM&M plan, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of this section.

(1) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.

(2) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(3) Conduct a flow sensor calibration check at least semiannually.

(4) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of this section.

(1) Locate the pressure sensor(s) in or as close to as possible a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) For each bag leak detection system (BLDS), you must meet any applicable requirements in paragraphs (a)(1) through (5) and (d)(1) through (8) of this section.

(1) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The sensor on the BLDS must provide output of relative PM emissions.

(3) The BLDS must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure fabric filter (FF), each compartment or cell must have a bag leak detector (BLD). For a negative-pressure or induced-air FF, the BLD must be installed downstream of the FF. If multiple BLD are required (for either type of FF), the detectors may share the system instrumentation and alarm.

(6) Bag leak detection systems must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(i) Adjust the range and the averaging period of the device.

(ii) Establish the alarm set points and the alarm delay time.

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by §63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official, as defined in §63.2, certifies in writing to the Administrator that the FF has been inspected and found to be in good operating condition.

(e) For each PM detector, you must meet any applicable requirements in paragraphs (a)(1) through (5) and (e)(1) through (8) of this section.

(1) The PM detector must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The sensor on the PM detector must provide output of relative PM emissions.

(3) The PM detector must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure electrostatic precipitator (ESP), each compartment must have a PM detector. For a negative-pressure or induced-air ESP, the PM detector must be installed downstream of the ESP. If multiple PM detectors are required (for either type of ESP), the detectors may share the system instrumentation and alarm.

(6) Particulate matter detectors must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(i) Adjust the range and the averaging period of the device.

(ii) Establish the alarm set points and the alarm delay time.

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by §63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official as defined in §63.2 certifies in writing to the Administrator that the ESP has been inspected and found to be in good operating condition.

(f) For each emission unit equipped with an add-on air pollution control device, you must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in item 6 of Table 2 to this subpart and record the results of each inspection.

(g) For each COMS used to monitor an add-on air pollution control device, you must meet the requirements in paragraphs (g)(1) and (2) of this section.

(1) Install the COMS at the outlet of the control device.

(2) Install, maintain, calibrate, and operate the COMS as required by 40 CFR part 63, subpart A, General Provisions and according to Performance Specification (PS)-1 of appendix B to part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.

 [Back to Top](#)

#### **§63.7114 How do I demonstrate initial compliance with the emission limitations standard?**

(a) You must demonstrate initial compliance with each emission limit in Table 1 to this subpart that applies to you, according to Table 3 to this subpart. For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of this section exist:

(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks;  
or

(2) The control device exhausts through a monovent; or

(3) The installation of a COMS in accordance with PS-1 of appendix B to part 60 is infeasible.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in §63.7112(j) and Table 4 to this subpart. Alternative parameters may be monitored if approval is obtained according to the procedures in §63.8(f)

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7130(e).

[↑ Back to Top](#)

### **CONTINUOUS COMPLIANCE REQUIREMENTS**

[↑ Back to Top](#)

#### **§63.7120 How do I monitor and collect data to demonstrate continuous compliance?**

(a) You must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), and except for PSH operations subject to monthly VE testing, you must monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating.

(c) Data recorded during the conditions described in paragraphs (c)(1) through (3) of this section may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(3) Start-ups, shutdowns, and malfunctions.

[↑ Back to Top](#)

**§63.7121 How do I demonstrate continuous compliance with the emission limitations standard?**

(a) You must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Tables 5 and 6 to this subpart.

(b) You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131.

(c) [Reserved]

(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

(e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 6 to this subpart, and as follows:

(1) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor.

(2) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at your back.

(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to part 60 of this chapter.

(f) For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (f)(1) or (3) of this section exist:

(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks;  
or

(2) The control device exhausts through a monovent; or

(3) The installation of a COMS in accordance with PS-1 of appendix B to part 60 is infeasible.

[69 FR 416, Jan. 5, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

[↑ Back to Top](#)



## NOTIFICATION, REPORTS, AND RECORDS

[↑ Back to Top](#)

### **§63.7130 What notifications must I submit and when?**

(a) You must submit all of the notifications in §§63.6(h)(4) and (5); 63.7(b) and (c); 63.8(e); (f)(4) and (6); and 63.9 (a) through (j) that apply to you, by the dates specified.

(b) As specified in §63.9(b)(2), if you start up your affected source before January 5, 2004, you must submit an initial notification not later than 120 calendar days after January 5, 2004.

(c) If you startup your new or reconstructed affected source on or after January 5, 2004, you must submit an initial notification not later than 120 calendar days after you start up your affected source.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in §63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, opacity observation, VE observation, or other initial compliance demonstration as specified in Table 3 or 4 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 3 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 4 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2).

[↑ Back to Top](#)

### **§63.7131 What reports must I submit and when?**

(a) You must submit each report listed in Table 7 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date specified in Table 7 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section:

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7083 and ending on June 30 or December 31, whichever date is the first date following the end of the first half calendar year after the compliance date that is specified for your source in §63.7083.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first half calendar year after the compliance date that is specified for your affected source in §63.7083.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, if the permitting authority has established dates for submitting semiannual reports pursuant to §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information specified in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that apply to you, the compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring systems (CMS) were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.

(d) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information specified in paragraphs (c)(1) through (4) and (d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in §63.10(d).

(1) The total operating time of each emission unit during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) occurring at an affected source where you are using a CMS to comply with the

emission limitation in this subpart, you must include the information specified in paragraphs (c)(1) through (4) and (e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total affected source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total emission unit operating time during that reporting period.

(8) A brief description of the process units.

(9) A brief description of the CMS.

(10) The date of the latest CMS certification or audit.

(11) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each facility that has obtained a title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter. If you submit a compliance report specified in Table 7 to this subpart along with, or as part of, the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

 [Back to Top](#)

### **§63.7132 What records must I keep?**

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii).

(b) You must keep the records in §63.6(h)(6) for VE observations.

(c) You must keep the records required by Tables 5 and 6 to this subpart to show continuous compliance with each emission limitation that applies to you.

(d) You must keep the records which document the basis for the initial applicability determination as required under §63.7081.

[↑ Back to Top](#)

#### **§63.7133 In what form and for how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

[↑ Back to Top](#)

### **OTHER REQUIREMENTS AND INFORMATION**

[↑ Back to Top](#)

#### **§63.7140 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. When there is overlap between subpart A and subpart AAAAA, as indicated in the “Explanations” column in Table 8, subpart AAAAA takes precedence.

[↑ Back to Top](#)

#### **§63.7141 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or by a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the

authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (6) of this section.

(1) Approval of alternatives to the non-opacity emission limitations in §63.7090(a).

(2) Approval of alternative opacity emission limitations in §63.7090(a).

(3) Approval of alternatives to the operating limits in §63.7090(b).

(4) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(5) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(6) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

 [Back to Top](#)

#### **§63.7142 What are the requirements for claiming area source status?**

(a) If you wish to claim that your LMP is an area source, you must measure the emissions of hydrogen chloride from all lime kilns, except as provided in paragraph (c) of this section, at your plant using either:

(1) EPA Method 320 of appendix A to this part,

(2) EPA Method 321 of appendix A to this part, or

(3) ASTM Method D6735-01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, provided that the provisions in paragraphs (a)(3)(i) through (vi) of this section are followed.

(i) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735-01.

(ii) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100) \text{ Absolute Value } \left[ \frac{C1_a - C2_a}{C1_a + C2_a} \right] \quad (Eq. 1)$$

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Where:

$RSD_a$  = The test run relative standard deviation of sample pair a, percent.

$C1_a$  and  $C2_a$  = The HCl concentrations, milligram/dry standard cubic meter(mg/dscm), from the paired samples.

(iii) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^p RSD_a}{p} \quad (Eq. 2)$$

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Where:

$RSD_{TA}$  = The test average relative standard deviation, percent.

$RSD_a$  = The test run relative standard deviation for sample pair a.

p = The number of test runs,  $\geq 3$ .

(iv) If  $RSD_{TA}$  is greater than 20 percent, the data are invalid and the test must be repeated.

(v) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735-01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735-01.

(vi) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.

(b) If you conduct tests to determine the rates of emission of specific organic HAP from lime kilns at LMP for use in applicability determinations under §63.7081, you may use either:

(1) Method 320 of appendix A to this part, or

(2) Method 18 of appendix A to part 60 of this chapter, or

(3) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS), provided that the provisions of paragraphs (b)(3)(i) through (iv) of this section are followed:

(i) The target compound(s) are those listed in section 1.1 of ASTM D6420-99;

(ii) The target concentration is between 150 parts per billion by volume and 100 parts per million by volume;

(iii) For target compound(s) not listed in Table 1.1 of ASTM D6420-99, but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in section 10.5.3 of ASTM D6420-99, is conducted, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water soluble; and

(iv) For target compound(s) not listed in Table 1.1 of ASTM D6420-99, and not amenable to detection by mass spectrometry, ASTM D6420-99 may not be used.

(c) It is left to the discretion of the permitting authority whether or not idled kilns must be tested for (HCl) to claim area source status. If the facility has kilns that use common feed materials and fuel, are essentially identical in design, and use essentially identical emission controls, the permitting authority may also determine if one kiln can be tested, and the HCl emissions for the other essentially identical kilns be estimated from that test.

[↑ Back to Top](#)

### **§63.7143 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:

*Bag leak detector system* (BLDS) is a type of PM detector used on FF to identify an increase in PM emissions resulting from a broken filter bag or other malfunction and sound an alarm.

*Belt conveyor* means a conveying device that transports *processed stone* from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

*Bucket elevator* means a *processed stone* conveying device consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

*Building* means any frame structure with a roof.

*Capture system* means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport PM to a control device.

*Control device* means the air pollution control equipment used to reduce PM emissions released to the atmosphere from one or more process operations at an LMP.

*Conveying system* means a device for transporting *processed stone* from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to feeders, belt conveyors, bucket elevators and pneumatic systems.

*Deviation* means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit);

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

*Emission limitation* means any emission limit, opacity limit, operating limit, or VE limit.

*Emission unit* means a lime kiln, lime cooler, storage bin, conveying system transfer point, bulk loading or unloading operation, bucket elevator or belt conveyor at an LMP.

*Fugitive emission* means PM that is not collected by a capture system.

*Hydrator* means the device used to produce hydrated lime or calcium hydroxide via the chemical reaction of the lime product with water.

*Lime cooler* means the device external to the lime kiln (or part of the lime kiln itself) used to reduce the temperature of the lime produced by the kiln.

*Lime kiln* means the device, including any associated preheater, used to produce a lime product from stone feed by calcination. Kiln types include, but are not limited to, rotary kiln, vertical kiln, rotary hearth kiln, double-shaft vertical kiln, and fluidized bed kiln.

*Lime manufacturing plant (LMP)* means any plant which uses a lime kiln to produce lime product from limestone or other calcareous material by calcination.

*Lime product* means the product of the lime kiln calcination process including, calcitic lime, dolomitic lime, and dead-burned dolomite.

*Limestone* means the material comprised primarily of calcium carbonate (referred to sometimes as calcitic or high calcium limestone), magnesium carbonate, and/or the double carbonate of both calcium and magnesium (referred to sometimes as dolomitic limestone or dolomite).

*Monovent* means an exhaust configuration of a building or emission control device (e.g., positive pressure FF) that extends the length of the structure and has a width very small in relation to its length (i.e., length-to-width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

*Particulate matter (PM) detector* means a system that is continuously capable of monitoring PM loading in the exhaust of FF or ESP in order to detect bag leaks, upset conditions, or control device malfunctions and sounds an alarm at a preset level. A PM detector system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effects to continuously monitor relative particulate loadings. A BLDS is a type of PM detector.

*Positive pressure FF or ESP* means a FF or ESP with the fan(s) on the upstream side of the control device.

*Process stone handling operations* means the equipment and transfer points between the equipment used to transport *processed stone*, and includes, storage bins, conveying system transfer



points, bulk loading or unloading systems, screening operations, bucket elevators, and belt conveyors.

*Processed stone* means limestone or other calcareous material that has been processed to a size suitable for feeding into a lime kiln.

*Screening operation* means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

*Stack emissions* means the PM that is released to the atmosphere from a capture system or control device.

*Storage bin* means a manmade enclosure for storage (including surge bins) of *processed stone* prior to the lime kiln.

*Transfer point* means a point in a conveying operation where the material is transferred to or from a belt conveyor.

*Vent* means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying PM emissions from one or more emission units.

[↑ Back to Top](#)

**Table 1 to Subpart AAAAA of Part 63—Emission Limits**

As required in §63.7090(a), you must meet each emission limit in the following table that applies to you.

For . . .	You must meet the following emission limit
1. Existing lime kilns and their associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004	PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf).
2. Existing lime kilns and their associated lime coolers that have a wet scrubber, where the scrubber itself was installed and operating prior to January 5, 2004	PM emissions must not exceed 0.60 lb/tsf. If at any time after January 5, 2004 the kiln changes to a dry control system, then the PM emission limit in item 1 of this Table 1 applies, and the kiln is hereafter ineligible for the PM emission limit in item 2 of this Table 1 regardless of the method of PM control.
3. New lime kilns and their associated lime coolers	PM emissions must not exceed 0.10 lb/tsf.

4. All existing and new lime kilns and their associated coolers at your LMP, and you choose to average PM emissions, except that any kiln that is allowed to meet the 0.60 lb/tsf PM emission limit is ineligible for averaging	Weighted average PM emissions calculated according to Eq. 2 in §63.7112 must not exceed 0.12 lb/tsf (if you are averaging only existing kilns) or 0.10 lb/tsf (if you are averaging only new kilns). If you are averaging existing and new kilns, your weighted average PM emissions must not exceed the weighted average emission limit calculated according to Eq. 3 in §63.7112, except that no new kiln and its associated cooler considered alone may exceed an average PM emissions limit of 0.10 lb/tsf.
5. Stack emissions from all PSH operations at a new or existing affected source	PM emissions must not exceed 0.05 grams per dry standard cubic meter (g/dscm).
6. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity.
7. Fugitive emissions from all PSH operations at a new or existing affected source, except as provided by item 8 of this Table 1	Emissions must not exceed 10 percent opacity.
8. All PSH operations at a new or existing affected source enclosed in a building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations in items 5 through 7 of this Table 1, or the building must comply with the following: There must be no VE from the building, except from a vent; and vent emissions must not exceed the stack emissions limitations in items 5 and 6 of this Table 1.
9. Each FF that controls emissions from only an individual, enclosed storage bin	Emissions must not exceed 7 percent opacity.
10. Each set of multiple storage bins at a new or existing affected source, with combined stack emissions	You must comply with the emission limits in items 5 and 6 of this Table 1.

[↑ Back to Top](#)

**Table 2 to Subpart AAAAA of Part 63—Operating Limits**

As required in §63.7090(b), you must meet each operating limit in the following table that applies to you.

For . . .	You must . . .
1. Each lime kiln and each lime cooler (if there is a separate exhaust to the atmosphere from the associated lime cooler) equipped with an FF	Maintain and operate the FF such that the BLDS or PM detector alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period; and comply with the requirements in §63.7113(d) through (f) and Table 5 to this subpart. In lieu of a BLDS or PM detector maintain the FF such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent; and comply with the requirements in §63.7113(f) and (g) and Table 5 to this subpart.
2. Each lime kiln equipped with a wet scrubber	Maintain the 3-hour block exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the most recent PM performance test; and maintain the 3-hour block scrubbing liquid flow rate greater than the flow rate operating limit established during the most recent performance test.
3. Each lime kiln equipped with an electrostatic precipitator	Install a PM detector and maintain and operate the ESP such that the PM detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period, and comply with §63.7113(e); or, maintain the ESP such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in §63.7113(g); and comply with the requirements in §63.7113(f) and Table 5 to this subpart.
4. Each PSH operation subject to a PM limit which uses a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test.
5. All affected sources	Prepare a written OM&M plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in

	Table 5 to this subpart.
6. Each emission unit equipped with an add-on air pollution control device	<p>a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to an FF; and</p> <p>b. Operate each capture/collection system according to the procedures and requirements in the OM&amp;M plan.</p>

[↑ Back to Top](#)

**Table 3 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits**

As required in §63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.

<b>For . . .</b>	<b>For the following emission limit . . .</b>	<b>You have demonstrated initial compliance, if after following the requirements in §63.7112 . . .</b>
1. All new or existing lime kilns and their associated lime coolers (kilns/coolers)	PM emissions must not exceed 0.12 lb/tsf for all existing kilns/coolers with dry controls, 0.60 lb/tsf for existing kilns/coolers with wet scrubbers, 0.10 lb/tsf for all new kilns/coolers, or a weighted average calculated according to Eq. 3 in §63.7112	The kiln outlet PM emissions (and if applicable, summed with the separate cooler PM emissions), based on the PM emissions measured using Method 5 in appendix A to part 60 of this chapter and the stone feed rate measurement over the period of initial performance test, do not exceed the emission limit; if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions with a BLDS or PM detector, you have installed and are operating the monitoring device according to the requirements in §63.7113(d) or (e), respectively; and if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions using a COMS, you have installed and are operating the COMS according to the requirements in §63.7113(g).
2. Stack emissions from	PM emissions must not exceed 0.05	The outlet PM emissions, based on

all PHS operations at a new or existing affected source	g/dscm	Method 5 or Method 17 in appendix A to part 60 of this chapter, over the period of the initial performance test do not exceed 0.05 g/dscm; and if the emission unit is controlled with a wet scrubber, you have a record of the scrubber's pressure drop and liquid flow rate operating parameters over the 3-hour performance test during which emissions did not exceed the emissions limitation.
3. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity	Each of the thirty 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit. At least thirty 6-minute averages must be obtained.
4. Fugitive emissions from all PSH operations at a new or existing affected source	Emissions must not exceed 10 percent opacity	Each of the 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 10 percent opacity limit.
5. All PSH operations at a new or existing affected source, enclosed in building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations for items 2 through 4 of this Table 3, or the building must comply with the following: There must be no VE from the building, except from a vent, and vent emissions must not exceed the emission limitations in items 2 and 3 of this Table 3	All the PSH operations enclosed in the building have demonstrated initial compliance according to the applicable requirements for items 2 through 4 of this Table 3; or if you are complying with the building emission limitations, there are no VE from the building according to item 18 of Table 4 to this subpart and §63.7112(k), and you demonstrate initial compliance with applicable building vent emissions limitations according to the requirements in items 2 and 3 of this Table 3.

6. Each FF that controls emissions from only an individual storage bin	Emissions must not exceed 7 percent opacity	Each of the ten 6-minute averages during the 1-hour initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit.
7. Each set of multiple storage bins with combined stack emissions	You must comply with emission limitations in items 2 and 3 of this Table 3	You demonstrate initial compliance according to the requirements in items 2 and 3 of this Table 3.

[↑ Back to Top](#)

**Table 4 to Subpart AAAAA of Part 63—Requirements for Performance Tests**

As required in §63.7112, you must conduct each performance test in the following table that applies to you.

<b>For . . .</b>	<b>You must . . .</b>	<b>Using . . .</b>	<b>According to the following requirements . . .</b>
1. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Select the location of the sampling port and the number of traverse ports	Method 1 or 1A of appendix A to part 60 of this chapter; and §63.6(d)(1)(i)	Sampling sites must be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
2. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Determine velocity and volumetric flow rate	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter	Not applicable.
3. Each lime kiln and each associated lime cooler, if there is a separate exhaust to	Conduct gas molecular weight analysis	Method 3, 3A, or 3B in appendix A to part 60 of this chapter	Not applicable.

the atmosphere from the associated lime cooler			
4. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Measure moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter	Not applicable.
5. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a negative pressure PM control device	Measure PM emissions	Method 5 in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e); the minimum sampling volume must be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the cooler exhaust concurrently with the kiln exhaust test.
6. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a positive pressure FF or ESP	Measure PM emissions	Method 5D in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the separate cooler exhaust concurrently with the kiln exhaust test.
7. Each lime kiln	Determine the mass rate of stone feed to the	Any suitable device	Calibrate and maintain the device according to manufacturer's instructions; the measuring device

	kiln during the kiln PM emissions test		used must be accurate to within $\pm 5$ percent of the mass rate of stone feed over its operating range.
8. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average gas stream pressure drop across the wet scrubber	Data for the gas stream pressure drop measurement device during the kiln PM performance test	The continuous pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
9. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average liquid flow rate to the scrubber	Data from the liquid flow rate measurement device during the kiln PM performance test	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
10. Each lime kiln equipped with a FF or ESP that is monitored with a PM detector	Have installed and have operating the BLDS or PM detector prior to the performance test	Standard operating procedures incorporated into the OM&M plan	According to the requirements in §63.7113(d) or (e), respectively.
11. Each lime kiln equipped with a FF or ESP that is monitored with a COMS	Have installed and have operating the COMS prior to the performance test	Standard operating procedures incorporated into the OM&M plan and as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2)	According to the requirements in §63.7113(g).



12. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to a PM emission limit	Measure PM emissions	Method 5 or Method 17 in appendix A to part 60 of this chapter	The sample volume must be at least 1.70 dscm (60 dscf); for Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters; and if the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter (Method 17 may be used only with exhaust gas temperatures of not more than 250 °F).
13. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to an opacity limit	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 3 hours and you must obtain at least thirty, 6-minute averages.
14. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber	Establish the average gas stream pressure drop across the wet scrubber	Data for the gas stream pressure drop measurement device during the PSH operation stack PM performance test	The pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
15. Each stack emissions source from a PSH operation subject to a PM or	Establish the operating limit for the average liquid flow rate	Data from the liquid flow rate measurement device during the PSH operation	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow

opacity limit, which uses a wet scrubber	to the scrubber	stack PM performance test	rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
16. Each FF that controls emissions from only an individual, enclosed, new or existing storage bin	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 1 hour and you must obtain ten 6-minute averages.
17. Fugitive emissions from any PSH operation subject to an opacity limit	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10 percent during the first 1-hour period.
18. Each building enclosing any PSH operation, that is subject to a VE limit	Conduct VE check	The specifications in §63.7112(k)	The performance test must be conducted while all affected PSH operations within the building are operating; the performance test for each affected building must be at least 75 minutes, with each side of the building and roof being observed for at least 15 minutes.

[↑ Back to Top](#)

**Table 5 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits**

As required in §63.7121, you must demonstrate continuous compliance with each operating limit that applies to you, according to the following table:

For . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
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1. Each lime kiln controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within $\pm 1\%$ and the continuous pressure drop measurement device must be accurate within $\pm 1\%$ ).
2. Each lime kiln or lime cooler equipped with a FF and using a BLDS, and each lime kiln equipped with an ESP or FF using a PM detector	a. Maintain and operate the FF or ESP such that the bag leak or PM detector alarm, is not activated and alarm condition does not exist for more than 5 percent of the total operating time in each 6-month period	(i) Operating the FF or ESP so that the alarm on the bag leak or PM detection system is not activated and an alarm condition does not exist for more than 5 percent of the total operating time in each 6-month reporting period; and continuously recording the output from the BLD or PM detection system; and
		(ii) Each time the alarm sounds and the owner or operator initiates corrective actions within 1 hour of the alarm, 1 hour of alarm time will be counted (if the owner or operator takes longer than 1 hour to initiate corrective actions, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions); if inspection of the FF or ESP system demonstrates that no corrective actions are necessary, no alarm time will be counted.

3. Each stack emissions source from a PSH operation subject to an opacity limit, which is controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within $\pm 1\%$ and the continuous pressure drop measurement device must be accurate within $\pm 1\%$ ).
4. For each lime kiln or lime cooler equipped with a FF or an ESP that uses a COMS as the monitoring device	a. Maintain and operate the FF or ESP such that the average opacity for any 6-minute block period does not exceed 15 percent	i. Installing, maintaining, calibrating and operating a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2); and
		ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

[↑ Back to Top](#)

**Table 6 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits**

As required in §63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table:

<b>For . . .</b>	<b>For the following emission limitation . . .</b>	<b>You must demonstrate ongoing compliance . . .</b>
1. Each PSH operation subject to an opacity limitation as required in Table 1 to this subpart, or any vents from buildings subject to an opacity limitation	a. 7-10 percent opacity, depending on the PSH operation, as required in Table 1 to this subpart	(i) Conducting a monthly 1-minute VE check of each emission unit in accordance with §63.7121(e); the check must be conducted while the affected source is in operation; (ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually for that emission unit; if VE are observed during any semiannual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks;
		(iii) If no VE are observed during the semiannual check for any emission unit, you may decrease the frequency of VE checking from semi-annually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and
		(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter; you must begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.
2. Any building subject to a VE limit, according to item 8 of Table 1 to this subpart	a. No VE	(i) Conducting a monthly VE check of the building, in accordance with the specifications in §63.7112(k); the check must be conducted while all the enclosed PSH operations are operating; (ii) The check for each affected building must be at least 5 minutes, with each side of the building and roof being observed for at least 1 minute;

		(iii) If no VE are observed in 6 consecutive monthly checks of the building, you may decrease the frequency of checking from monthly to semi-annually for that affected source; if VE are observed during any semi-annual check, you must resume checking on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and
		(iv) If no VE are observed during the semi-annual check, you may decrease the frequency of checking from semi-annually to annually for that affected source; and if VE are observed during any annual check, you must resume checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks (the source is in compliance if no VE are observed during any of these checks).

[↑ Back to Top](#)

#### Table 7 to Subpart AAAAA of Part 63—Requirements for Reports

As required in §63.7131, you must submit each report in this table that applies to you.

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period;	Semiannually according to the requirements in §63.7131(b).
	b. If there were no periods during which the CMS, including any operating parameter monitoring system, was out-of-control as specified in §63.8(c)(7), a statement that there were no periods	Semiannually according to the requirements in §63.7131(b).

	during which the CMS was out-of-control during the reporting period;	
	c. If you have a deviation from any emission limitation (emission limit, operating limit, opacity limit, and VE limit) during the reporting period, the report must contain the information in §63.7131(d);	Semiannually according to the requirements in §63.7131(b).
	d. If there were periods during which the CMS, including any operating parameter monitoring system, was out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7131(e); and	Semiannually according to the requirements in §63.7131(b).
	e. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i)	Semiannually according to the requirements in §63.7131(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the SSMP.
3. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	The information in §63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. See §63.10(d)(5)(ii).

[↑ Back to Top](#)

**Table 8 to Subpart AAAAA of Part 63—Applicability of General Provisions to Subpart AAAAA**

As required in §63.7140, you must comply with the applicable General Provisions requirements according to the following table:

<b>Citation</b>	<b>Summary of requirement</b>	<b>Am I subject to this requirement?</b>	<b>Explanations</b>
§63.1(a)(1)-(4)	Applicability	Yes	
§63.1(a)(5)		No	
§63.1(a)(6)	Applicability	Yes	
§63.1(a)(7)-(a)(9)		No	
§63.1(a)(10)-(a)(14)	Applicability	Yes	
§63.1(b)(1)	Initial Applicability Determination	Yes	§§63.7081 and 63.7142 specify additional applicability determination requirements.
§63.1(b)(2)		No	
§63.1(b)(3)	Initial Applicability Determination	Yes	
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Permit Requirements	No	Area sources not subject to subpart AAAAA, except all sources must make initial applicability determination.
§63.1(c)(3)		No	
§63.1(c)(4)-(5)	Extensions, Notifications	Yes	



§63.1(d)		No	
§63.1(e)	Applicability of Permit Program	Yes	
§63.2	Definitions		Additional definitions in §63.7143.
§63.3(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(a)(2)	Prohibited Activities	Yes	
§63.4(a)(3)-(a)(5)		No	
§63.4(b)-(c)	Circumvention, Severability	Yes	
§63.5(a)(1)-(2)	Construction/Reconstruction	Yes	
§63.5(b)(1)	Compliance Dates	Yes	
§63.5(b)(2)		No	
§63.5(b)(3)-(4)	Construction Approval, Applicability	Yes	
§63.5(b)(5)		No	
§63.5(b)(6)	Applicability	Yes	
§63.5(c)		No	
§63.5(d)(1)-(4)	Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	
§63.5(f)(1)-(2)	Approval of Construction/Reconstruction	Yes	

§63.6(a)	Compliance for Standards and Maintenance	Yes	
§63.6(b)(1)-(5)	Compliance Dates	Yes	
§63.6(b)(6)		No	
§63.6(b)(7)	Compliance Dates	Yes	
§63.6(c)(1)-(2)	Compliance Dates	Yes	
§63.6(c)(3)-(c)(4)		No	
§63.6(c)(5)	Compliance Dates	Yes	
§63.6(d)		No	
§63.6(e)(1)	Operation & Maintenance	Yes	See §63.7100 for OM&M requirements.
§63.6(e)(2)		No	
§63.6(e)(3)	Startup, Shutdown Malfunction Plan	Yes	
§63.6(f)(1)-(3)	Compliance with Emission Standards	Yes	
§63.6(g)(1)-(g)(3)	Alternative Standard	Yes	
§63.6(h)(1)-(2)	Opacity/VE Standards	Yes	
§63.6(h)(3)		No	
§63.6(h)(4)-(h)(5)(i)	Opacity/VE Standards	Yes	This requirement only applies to opacity and VE performance checks required in Table 4 to subpart AAAAAA.

§63.6(h)(5) (ii)-(iii)	Opacity/VE Standards	No	Test durations are specified in subpart AAAAA; subpart AAAAA takes precedence.
§63.6(h)(5)(iv)	Opacity/VE Standards	No	
§63.6(h)(5)(v)	Opacity/VE Standards	Yes	
§63.6(h)(6)	Opacity/VE Standards	Yes	
§63.6(h)(7)	COM Use	Yes	
§63.6(h)(8)	Compliance with Opacity and VE	Yes	
§63.6(h)(9)	Adjustment of Opacity Limit	Yes	
§63.6(i)(1)-(i)(14)	Extension of Compliance	Yes	
§63.6(i)(15)		No	
§63.6(i)(16)	Extension of Compliance	Yes	
§63.6(j)	Exemption from Compliance	Yes	
§63.7(a)(1)-(a)(3)	Performance Testing Requirements	Yes	§63.7110 specifies deadlines; §63.7112 has additional specific requirements.
§63.7(b)	Notification	Yes	
§63.7(c)	Quality Assurance/Test Plan	Yes	
§63.7(d)	Testing Facilities	Yes	
§63.7(e)(1)-(4)	Conduct of Tests	Yes	
§63.7(f)	Alternative Test Method	Yes	

§63.7(g)	Data Analysis	Yes	
§63.7(h)	Waiver of Tests	Yes	
§63.8(a)(1)	Monitoring Requirements	Yes	See §63.7113.
§63.8(a)(2)	Monitoring	Yes	
§63.8(a)(3)		No	
§63.8(a)(4)	Monitoring	No	Flares not applicable.
§63.8(b)(1)-(3)	Conduct of Monitoring	Yes	
§63.8(c)(1)-(3)	CMS Operation/Maintenance	Yes	
§63.8(c)(4)	CMS Requirements	No	See §63.7121.
§63.8(c)(4)(i)-(ii)	Cycle Time for COM and CEMS	Yes	No CEMS are required under subpart AAAAA; see §63.7113 for CPMS requirements.
§63.8(c)(5)	Minimum COM procedures	Yes	COM not required.
§63.8(c)(6)	CMS Requirements	No	See §63.7113.
§63.8(c)(7)-(8)	CMS Requirements	Yes	
§63.8(d)	Quality Control	No	See §63.7113.
§63.8(e)	Performance Evaluation for CMS	No	
§63.8(f)(1)-(f)(5)	Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy test	No	
§63.8(g)(1)-(g)(5)	Data Reduction; Data That	No	See data reduction requirements in

	Cannot Be Used		§§63.7120 and 63.7121.
§63.9(a)	Notification Requirements	Yes	See §63.7130.
§63.9(b)	Initial Notifications	Yes	
§63.9(c)	Request for Compliance Extension	Yes	
§63.9(d)	New Source Notification for Special Compliance Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	
§63.9(f)	Notification of VE/Opacity Test	Yes	This requirement only applies to opacity and VE performance tests required in Table 4 to subpart AAAAA. Notification not required for VE/opacity test under Table 6 to subpart AAAAA.
§63.9(g)	Additional CMS Notifications	No	Not required for operating parameter monitoring.
§63.9(h)(1)-(h)(3)	Notification of Compliance Status	Yes	
§63.9(h)(4)		No	
§63.9(h)(5)-(h)(6)	Notification of Compliance Status	Yes	
§63.9(i)	Adjustment of Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	
§63.10(a)	Recordkeeping/Reporting General Requirements	Yes	See §§63.7131 through 63.7133.

§63.10(b)(1)-(b)(2)(xii)	Records	Yes	
§63.10(b)(2)(xiii)	Records for Relative Accuracy Test	No	
§63.10(b)(2)(xiv)	Records for Notification	Yes	
§63.10(b)(3)	Applicability Determinations	Yes	
§63.10(c)	Additional CMS Recordkeeping	No	See §63.7132.
§63.10(d)(1)	General Reporting Requirements	Yes	
§63.10(d)(2)	Performance Test Results	Yes	
§63.10(d)(3)	Opacity or VE Observations	Yes	For the periodic monitoring requirements in Table 6 to subpart AAAAA, report according to §63.10(d)(3) only if VE observed and subsequent visual opacity test is required.
§63.10(d)(4)	Progress Reports	Yes	
§63.10(d)(5)	Startup, Shutdown, Malfunction Reports	Yes	
§63.10(e)	Additional CMS Reports	No	See specific requirements in subpart AAAAA, see §63.7131.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes	
§63.11(a)-(b)	Control Device Requirements	No	Flares not applicable.
§63.12(a)-(c)	State Authority and Delegations	Yes	

§63.13(a)-(c)	State/Regional Addresses	Yes	
§63.14(a)-(b)	Incorporation by Reference	No	
§63.15(a)-(b)	Availability of Information	Yes	

[↑ Back to Top](#)