



**DIVISION OF ENVIRONMENTAL QUALITY**

**DRAFT OPERATING AIR PERMIT**

**PERMIT NUMBER: 0045-AOP-R11**

**IS ISSUED TO:**

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

PURSUANT TO THE RULES OF THE ARKANSAS OPERATING AIR PERMIT PROGRAM, RULE 26: 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:

November 29, 2021 AND November 28, 2026

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

**Signed:**

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Demetria Kimbrough  
Associate Director, Office of Air Quality  
Division of Environmental Quality

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Date

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List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	Arkansas DEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
HAP	Hazardous Air Pollutant
Hp	Horsepower
lb/hr	Pound Per Hour
NESHAP	National Emission Standards (for) Hazardous Air Pollutants
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO <sub>x</sub>	Nitrogen Oxide
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Equal To Or Smaller Than Ten Microns
PM <sub>2.5</sub>	Particulate Matter Equal To Or Smaller Than 2.5 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

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**SECTION I: FACILITY INFORMATION**

PERMITTEE: Arkansas Lime Company

AFIN: 32-00014

PERMIT NUMBER: 0045-AOP-R11

FACILITY ADDRESS: 600 Limedale Road  
Batesville, AR 72503

MAILING ADDRESS: P. O. Box 2356  
Batesville, AR 72503

COUNTY: Independence County

CONTACT NAME: Dane Werner

CONTACT POSITION: Vice President & Plant Manager

TELEPHONE NUMBER: (870) 793-2301

REVIEWING ENGINEER: Derrick Brown

UTM North South (Y): Zone 15: 3962027.98 m

UTM East West (X): Zone 15: 615724.2 m

## SECTION II: INTRODUCTION

### Summary of Permit Activity

Arkansas Lime Company owns and operates a limestone quarry and lime manufacturing plant near Batesville, Independence County, Arkansas. This modification updates HCl emissions for Rotary Lime Kilns SN-11Q, SN-24Q, and SN-30Q. This modification reduces permitted emissions of HCl based on testing conducted March 28 and 29<sup>th</sup>, 2023. Finally, this reduction results in the reclassification of this facility as an area source of HAP under section 112 of the Clean Air Act and the removal of permitting requirements of 40 C.F.R. § 63, Subpart AAAAA. This modification decreases permitted HCl emissions by 85.71 tons of HCl per year.

### Process Description

#### Quarry

Arkansas Lime extracts 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.

The rock is processed through a collection of crushers (SN-01Q, SN-02Qb), screens (SN-03Qa, SN-03Qb, SN-03Qc), conveyor belts (included under SN-07Q), stock piles (SN-04Q), storage bins (SN-47Qa, SN-47Qb), and sorting equipment. The processed limestone is then used to produce final products such as lime, Ag-Lime (SN-05Q, SN-09Q, SN-22Q), and pulverized limestone (PLS).

Crushed limestone is also received from offsite sources at the Railcar/Truck Limestone Unloading System (included under SN-07Q).

A portable trommel screen (SN-46Q) is used with an associated portable diesel-fired generator 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 IIII 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.

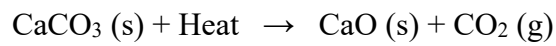
The limestone pebbles that are too small for kiln feed are discharged to the Pulverized Limestone (PLS)/Ag-Lime Screen. The pebbles discharged from the PLS/Ag-Lime Screen are combined with the fines rejected from the Kiln Feed Screen (SN-10Q) and are dropped onto the Roller Mill Feed Loadout Surge Pile. 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 loaded into trucks for sale via a front-end loader, or can be gathered by a reclaim tunnel and loaded into railcars (SN-05Q) for sale or for transport to the PLS/Lime Plant. 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 (SN-31Q) and feed it to belt conveyors (SN-07Q). The belt conveyors transport the stone to the Kiln Feed Screen (SN-10Q) 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, SN-35Q) of one of the three Rotary Lime Kilns (SN-11Q, SN-24Q, 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, SN-12Qb) where it is loaded into trucks (SN-40Q) for sales or disposal (SN-41Q).

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 Kilns, 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 Kilns. The lime exits the kilns through a Lime Cooler. Nuisance dust from the lime coolers is controlled with dust collectors (SN-13Q, SN-25Q, SN-32Q).

Lime is transferred from the Lime Cooler (one for each kiln) via covered conveyors and bucket elevators to the Lime Product 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

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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 Lime Product Silos. The two Lime Product Silos and one Fringe Bin are shared by all kilns. From the Lime Product Silos, the lime is conveyed, screened, and crushed (if necessary) to meet product size specifications. The silos can load lime, also called quicklime, through “dustless” 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, SN-37Q). Potential emissions from the loadout operations are controlled by “dustless” loadout spouts (SN-38Q, 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 IIII.

### 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 storage piles (SN-20Q) either via a conveyor system or by a backhoe and/or 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).

Weigh feeders and belt conveyors (SN-28Q, SN-34Q) mix the coal and coke and transfer the mixture to one of three Fuel Bins (with dust collectors SN-26Q and SN-33Q). Each Fuel Bin holds one day’s fuel mix and will 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. Alternately, 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.

The discharge from the fines screw conveyor can be routed to one of two locations: to 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.

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The PLS Loadout operation consists 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, 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).

### **Rules and Regulations**

The following table contains the rules and regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective March 14, 2016
Rules of the Arkansas Plan of Implementation for Air Pollution Control, Rule 19, effective May 6, 2022
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. § 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	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	118.2	328.2
		PM <sub>10</sub>	96.2	328.1
		PM <sub>2.5</sub>	See Note*	
		SO <sub>2</sub>	139.4	426.0
		VOC	11.7	43.8
		CO	269.5	1034.1
		NO <sub>x</sub>	322.4	1213.0
		HCl	2.57	9.93
		Total Other Total HAP	5.68	24.9
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	4.7	20.6
		PM <sub>10</sub>	2.4	10.3
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	10.7	15.9
		PM <sub>10</sub>	4.8	7.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
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	0.83	3.31
	Total Other HAP		1.28	5.25
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
13Q	#1 Lime Discharge (Nuisance Dust Collector)	PM	0.4	1.8
		PM <sub>10</sub>	0.4	1.8
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

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
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	0.83	3.31
		Total Other HAP	1.28	5.25
25Q	#2 Lime Discharge (Nuisance Dust Collector)	PM	0.4	1.8
		PM <sub>10</sub>	0.4	1.8
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
30Q	Rotary Lime Kiln 3	PM	6.3	22.9
		PM <sub>10</sub>	18.2	66.2
		SO <sub>2</sub>	48.9	141.7
		VOC	3.7	14.2
		CO	93.8	342.2
		NO <sub>x</sub>	109.4	399.3
		HCl	0.91	3.31
		Total Other HAP	1.4	5.38
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

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
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 Other HAPs***	0.02	0.01
46Q	Portable Trommel Screen Operations	PM	1.4	6.1
		PM <sub>10</sub>	0.5	2.1
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 Other 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

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
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 Other 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 Other 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
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.

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\*\*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

\*\*\* "Total Other HAPs" excludes HCl.



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### **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.

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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

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kiln sources, SN-11Q, SN-24Q, and SN-30Q. Clarification of the language for operation of water 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

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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.

Permit 0045-AOP-R8 was issued on February 11, 2020. The following changes were made in a 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>.

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Permit 0045-AOP-R9 was issued on November 29, 2021. The following changes were included in that renewal and minor modification of the Title V permit:

Minor Modification:

- Install a Railcar/Truck Limestone Unloading System to bring limestone rock from offsite quarries, which will add storage piles to SN-04Q (Storage Piles) and transfer points to SN-07Q (Conveyor Transfer Points)

Renewal:

- Correct the grain loading emission factor for dust collectors SN-13Q and SN-25Q from 0.010 gr/dscf to their original 0.015 gr/dscf, because they were inadvertently changed in calculations prepared for permit #0045-AOP-R3
- Consolidate conditions for NSPS HH (from SN-11Q, 24Q, and 30Q sections), and relocate them to the Plantwide Conditions section
- Update opacity conditions for daily and weekly observations to current standard language
- Remove old testing dates from Specific Conditions #69, #113, #129, #131, #165, #181, and #185
- Change wording “Total HAPs” to “Total Other HAPs (excluding HCl)” for SN-43Q, SN-12 P, SN-18P, and SN-19P
- Add a Plantwide Condition about the existing requirements for Quality Improvement Plans for sources subject to Compliance Assurance Monitoring

Language in the General Provisions was updated. Permitted annual emissions increased as follows: 2.7 tpy PM, 1.8 tpy PM<sub>10</sub>.

Permit 0045-AOP-R10 was issued August 1, 2022. The following changes were included in this modification:

- Daily throughput limit at SN-30Q (Kiln #3) was increased.
- A One-time testing requirement for HCl at SN-30Q was added.
- Plantwide Condition #7 about construction timelines was added.

Permitted annual emissions were unchanged.

A PSD Applicability Analysis for this project showed that the project screened out at the Step 1 Analysis and did not trigger PSD. The annual limit is not changing for any of the kilns. Because the three lime kilns are in parallel and fed from a surge pile, increased short-term throughput at SN-30Q (Kiln #3) is throughput that could have gone through another of the kilns. No emissions increases were found above the SER level for PSD. More information may be found in the PSD Applicability section of the Statement of Basis.

**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. [Rule.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. [Rule.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%	Rule.18.501, Rule.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%	Rule.18.501, Rule.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. Weekly observations of the opacity from SN-01Q and SN-02Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.18.501, Rule.19.304, 40 C.F.R. § 60.672(b), 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. [Rule.18.1004, Rule.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

Source	Tons of Limestone per consecutive 12 month period
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. [Rule.18.1004, Rule.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]
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. [Rule.18.1104, Rule.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 #14 through #19. [Rule.19.304 and 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. [Rule.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. [Rule.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

SN	Pollutant	lb/hr	tpy
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%	Rule.18.501, Rule.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%	Rule.18.501, Rule.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. Weekly observations of the opacity from SN-03Qa, SN-03Qb, SN-03Qc, SN-09Q, and SN-10Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501, Rule.19.304, 40 C.F.R. § 60.672(b), 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. [Rule.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. [Rule.18.1004, Rule.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. [Rule.18.1004, Rule.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 #14 through #19. [Rule.19.304 and 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, 2018, and 2020.

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. [Rule.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
04Q	PM <sub>10</sub>	2.4	10.3

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. [Rule.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	4.7	20.6

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. [Rule.18.1004, Rule.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. [Rule.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. [Rule.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%	Rule.19.503, 40 C.F.R. § 52 Subpart E

23. Weekly observations of the opacity from SN-05Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.19.503 and 40 C.F.R. § 52 Subpart E]

24. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.18.1004, Rule.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. [Rule.18.1004, Rule.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. [Rule.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. [Rule.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. [Rule.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]

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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. [Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
  
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.

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. [Rule.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>	4.8	7.0

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. [Rule.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	10.7	15.9

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%	Rule.18.501, Rule.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

34. Weekly observations of the opacity from SN-07Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501, Rule.19.304, 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. [Rule.18.1004, Rule.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 #14 through #19. [Rule.19.304 and 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-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, 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

37. 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 #40, #40, #47, and #55 and Plantwide Condition #13 and equipment limitations. [Rule.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

38. 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 #40, #42, #47, #50, and #52 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

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 #40, #42, and #47, and Plantwide Condition #13, #20 through #28, and equipment limitations. [Rule.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	0.83	3.31
	Total Other HAP	1.28	5.25

40. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.19.705, Rule.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

41. 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 #40 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. [Rule.19.705 and Rule.19.901 *et seq.*, and 40 C.F.R. § 52 Subpart E]
42. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.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

43. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.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

44. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Conditions #42 and #43 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. [Rule.19.705 and 40 C.F.R. § 52 Subpart E]
45. 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. [Rule.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
46. 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. [Rule.19.702 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
47. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [Rule.19.705 and Rule.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]
48. 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 #37. All tests shall take place in accordance with Plantwide Condition #3 and shall occur by June 30 of the testing year. [Rule.19.702 and 40 C.F.R. § 52 Subpart E]

*NSPS Subpart HH*

49. 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 Plantwide Conditions #8 through #13. [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]

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

50. 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. [Rule.19.705 and Rule.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]
51. 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 #50 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. [Rule.19.705 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NO<sub>x</sub>*

52. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [Rule.19.501 *et seq.* and Rule.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]
53. 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. [Rule.19.702 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

54. The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions limit in Specific Condition #52 for source SN-11Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Rule.19.703 and Rule.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 #54e through #54h.
  - 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 #54b. 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 #52.
  - 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 #54b.
  - 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 #54b 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*

55. 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. [Rule.19.702 and 40 C.F.R. § 52 Subpart E]
56. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #37 for source SN-11Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Rule.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 #54a to demonstrate compliance with the minimum %O<sub>2</sub> kiln gas limit established by Specific Condition #56a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #54e through #54i.
  - 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 #56a.



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

57. 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. [Rule.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>	0.4	1.8

58. 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. [Rule.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	0.4	1.8

59. 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%	Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

60. Weekly observations of the opacity from SN-12Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

61. Daily observations of the opacity from SN-13Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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

62. 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. [Rule.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

63. 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. [Rule.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

64. 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

65. Weekly observations of the opacity from SN-14Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

66. Daily observations of the opacity from SN-15Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

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[Rule.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

67. 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. [Rule.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

68. 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. [Rule.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

69. 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%	Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced

Source	Limit	Regulatory Citation
		by Ark. Code Ann. §§ 8-4-304 and 8-4-311

70. Weekly observations of the opacity from SN-16Q, SN-17Q, and SN-18Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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

71. 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 #75 and equipment limitations. [Rule.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

72. 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 #75 and equipment limitations. [Rule.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

73. 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%	Rule.19.503 and 40 C.F.R. § 52 Subpart E
21Q	20%	Rule.19.304, Rule.19.503, 40 C.F.R. § 60.252(c), and 40 C.F.R. § 52 Subpart E

74. Weekly observations of the opacity from SN-19Q, SN-20Q, and SN-21Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.19.503 and 40 C.F.R. § 52 Subpart E]

75. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.18.1004, Rule.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

76. The permittee shall maintain records of the coal/coke throughput at source SN-19Q in order to demonstrate compliance with Specific Condition #75 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. [Rule.18.1004, Rule.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]
77. 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 #78 and #79. [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]
78. 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). [Rule.19.304 and 40 C.F.R. § 60.254(a)]
79. The owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11. [Rule.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

80. 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 #84 and #86 and equipment limitations. [Rule.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

81. 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 #84 and #86 and equipment limitations. [Rule.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

82. 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%	Rule.19.503 and 40 C.F.R. § 52 Subpart E

83. Weekly observations of the opacity from SN-22Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.19.503 and 40 C.F.R. § 52 Subpart E]

84. The permittee shall not exceed the following process rates set forth in the following table at the designated sources. [Rule.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

85. 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 #84 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. [Rule.18.1004, Rule.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]
86. 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. [Rule.18.1004, Rule.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, 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

87. 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 #91, #92, #94, #98, and #103 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

88. 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 #91, #92, #94, and #106 and equipment limitations. [Rule.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

89. 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 #92 and #94, Plantwide Condition #13, #20 through #28, and equipment limitations. [Rule.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	0.83	3.31
	Total Other HAP	1.28	5.25

90. 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. [Rule.19.702 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
91. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [Rule.19.705 and Rule.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]
92. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.19.705 and Rule.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

93. 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 #92 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. [Rule.19.705 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

94. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.19.705 and Rule.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

95. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.19.705 and Rule.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

96. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #94 and #95, 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. [Rule.19.705 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

97. 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. [Rule.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*

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



99. 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 #87 and the grain loading factor set forth in Specific Condition #98. 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. [Rule.19.702 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NSPS Subpart HH*

100. 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 Plantwide Conditions #8 through #13. [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]

*SO<sub>2</sub>*

101. 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. [Rule.19.705 and Rule.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]
102. 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 #101 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. [Rule.19.705 and Reulg19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NO<sub>x</sub>*

103. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [Rule.19.501 *et seq.* and Rule.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]
104. 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. [Rule.19.702 and Reg.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
105. The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions limit in Specific Condition #103 for source SN-24Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Rule.19.703 and Rule.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 #105e through #105h.
  - 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 #104. 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 #103.
  - 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 #105b.
  - 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 #105b 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

- 106. 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. [Rule.19.702 and 40 C.F.R. § 52 Subpart E]
- 107. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #88 for source SN-24Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Rule.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 #105a to demonstrate compliance with the minimum %O<sub>2</sub> kiln gas limit established by Specific Condition #107a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #105e through #105i.
  - 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

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30-day average for comparison to the limit established by Specific Condition #107a.

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

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 Condition #111 and equipment limitations. [Rule.19.501 *et seq.* and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
25Q	PM <sub>10</sub>	0.4	1.8
	PM	0.4	1.8

109. 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%	Rule.18.501, Rule.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

110. Daily observations of the opacity from SN-25Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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]

111. 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. [Rule.19.501 *et seq.* and Rule.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

112. 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 #115 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

113. 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%	Rule.18.501, Rule.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

114. Weekly observations of the opacity from SN-26Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

115. 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. [Rule.19.501 *et seq.* and Rule.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, 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

116. 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. [Rule.19.501 *et seq.* and Rule.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

117. 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%	Rule.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

118. Weekly observations of the opacity from SN-27Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

119. 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 Condition #117 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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-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

120. 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. [Rule.19.501 *et seq.* and Rule.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

121. 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%	Rule.19.304, Reg.19.503, and Reg.19.901, 40 C.F.R. § 60.252(c), and 40 C.F.R. § 52 Subpart E

122. Weekly observations of the opacity from SN-28 shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.19.503 and 40 C.F.R. § 52 Subpart E]

123. 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 #121, #124, and #125. [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]
124. 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). [Rule.19.304 and 40 C.F.R. § 60.254(a)]
125. The owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11. [Rule.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, 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

126. 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 #130, #131, #133, #137, #140, #143, and #147 and equipment limitations. [Rule.19.501 *et seq.* and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
30Q	PM <sub>10</sub>	18.2	66.2
	PM	6.3	22.9
	SO <sub>2</sub>	48.9	141.7
	CO	93.8	342.2
	NO <sub>x</sub>	109.4	399.3

127. 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 #130, #131, #133, and #145 and equipment limitations. [Rule.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
30Q	VOC	3.7	14.2

128. 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 #131, #133, Plantwide Condition #20 and equipment limitations. [Rule.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	0.91	3.31
	Total Other HAP	1.4	5.38

129. 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. [Rule.19.702 and Rule.19.901 *et seq.*, and 40 C.F.R. § 52 Subpart E]

130. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [Rule.19.705 and Rule.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]

131. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.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

132. 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 #131 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. [Rule.19.705 and Rule.19.901 *et seq*, and 40 C.F.R. § 52 Subpart E]

133. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.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	750.0

134. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.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

135. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #133 and #134, 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. [Rule.19.705 and 40 C.F.R. § 52 Subpart E]

136. 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. [Rule.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*

137. Particulate matter emissions from source SN-30Q shall not exceed 0.10 lb/ton of stone feed. [Rule.19.501 *et seq.* and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
138. 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 #126 and the pound per ton limit set forth in Specific Condition #137. 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. All tests shall take place in accordance with the plantwide conditions of this permit. [Rule.19.501 *et seq.* and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

*NSPS HH*

139. 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 Plantwide Conditions #8 through #13. [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]

*SO<sub>2</sub>*

140. 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. [Rule.19.705 and Rule.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]
141. 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 #140 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. [Rule.19.705 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]



*NO<sub>x</sub>*

142. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [Rule.19.501 *et seq.* and Rule.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]
143. 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. [Rule.19.702 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
144. The permittee shall demonstrate compliance with the NO<sub>x</sub> emissions limit in Specific Condition #142 for source SN-30Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Rule.19.703 and Rule.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 #144e through #144h.
  - 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 #143. 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 #142.
  - 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 #144b.
  - 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 #144b 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

- 145. 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. [Rule.19.702 and 40 C.F.R. § 52 Subpart E]

#### CO

- 146. Emissions of CO shall not exceed 3.0 lbs per ton of lime produced on a 30-day rolling average. [Rule.19.501 *et seq.* and Rule.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]
- 147. 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. [Rule.19.702 and 40 C.F.R. § 52 Subpart E]

148. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #146 for source SN-30Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [Rule.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 #144a to demonstrate compliance with the minimum %O<sub>2</sub> kiln gas limit established by Specific Condition #148a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #144e through #144i.
  - 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 #148a.

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

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. [Rule.19.501 *et seq.* and Rule.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

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

151. Weekly observations of the opacity from SN-31Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule 19.503 and 40 C.F.R. § 52 Subpart E]

152. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule 19.705 and Rule 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

153. The permittee shall maintain records of the limestone throughput at source SN-31Q in order to demonstrate compliance with Specific Condition #152 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. [Rule 19.705 and Rule 19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
154. 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 #150 and Plantwide Conditions #14 through #19. [Rule 19.304 and 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

155. 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 #158 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

156. 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%	Rule.18.501, Rule.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

157. Daily observations of the opacity from SN-32Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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]

158. 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. [Rule.19.501 *et seq.* and Rule.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

159. 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 #162 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

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
33Q	5%	Rule.18.501, Rule.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



161. Weekly observations of the opacity from SN-33Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

162. 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. [Rule.19.501 *et seq.* and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

Arkansas Lime Company  
 Permit #: 0045-AOP-R11  
 AFIN: 32-00014

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

163. 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 #131 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

164. 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

165. Weekly observations of the opacity from SN-34Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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, 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

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 Condition #169 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

167. 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%	Rule.18.501, Rule.19.304, and Rule.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

168. Weekly observations of the opacity from SN-35Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.
- [Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

169. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.19.705 and Rule.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

170. The permittee shall maintain records of the limestone throughput at source SN-35Q in order to demonstrate compliance with Specific Condition #169 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. [Rule.19.705 and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]
171. 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 #167 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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-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

172. 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 #175 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

173. 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%	Rule.18.501, Rule.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

174. Weekly observations of the opacity from SN-36Q and SN-37Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

175. 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. [Rule.19.501 *et seq.* and Rule.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

176. 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 #179 and equipment limitations. [Rule.19.501 *et seq.* and Rule.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

177. 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%	Rule.18.501, Rule.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



178. Weekly observations of the opacity from SN-38Q and SN-39Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

179. 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. [Rule.19.501 *et seq.* and Rule.19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN-40Q  
LKD Truck Loading

Source Description

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

Specific Conditions

180. 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. [Rule.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

181. 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. [Rule.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

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

182. 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. [Rule.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

183. 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. [Rule.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

184. 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 #190 through #198 and by burning only diesel fuel. [Rule.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

185. 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 #190 through #198 and by burning only diesel fuel. [Rule.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 Other HAPs (excluding HCl)	0.02	0.01

186. 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

187. 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. [Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
188. 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. [Rule.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]
189. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #188. 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. [Rule.19.705 and 40 C.F.R. § 52 Subpart E]

NESHAP 40 C.F.R. § 60 Subpart IIII

190. 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 #191 through #198. [Rule.19.304 and 40 C.F.R. § 60 Subpart IIII]
191. 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. [Rule.19.304 and 40 C.F.R. §60.4200(a)(2)(i)]

192. 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. [Rule.19.304 and 40 C.F.R. §60.4205(b)]
193. 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. [Rule.19.304 and 40 C.F.R. §60.4207(b)]
194. 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. [Rule.19.304 and 40 C.F.R. §60.4208(a)]
195. 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. [Rule.19.304 and 40 C.F.R. §60.4209(a)]
196. 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.
- [Rule.19.304 and 40 C.F.R. §60.4211(a)]
197. 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. [Rule.19.304 and 40 C.F.R. §60.4211(c)]

198. 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.

[Rule.19.304 and 40 C.F.R. §60.4211(f)]

NESHAP 40 C.F.R. § 63 Subpart ZZZZ

199. 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.

200. 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. [Rule.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

201. 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. [Rule.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

202. 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%	Rule.18.501, Rule.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

203. Weekly observations of the opacity from SN-46Q shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.

- a. The date and time of the observation.
- b. If visible emissions which appeared to be above the permitted limit were detected.
- c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
- d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

204. 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.

[Rule.18.1004, Rule.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]

205. 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 #202, Specific Conditions #206 through #217,

and Plantwide Conditions #14 through #19. [Rule.19.304 and 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]

206. 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. [Rule.19.304 and 40 C.F.R. § 60.672(b)]
207. 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). [Rule.19.304 and 40 C.F.R. § 60.674(b)]
208. 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. [Rule.19.304 and 40 C.F.R. § 60.674(b)(2)]
209. Method 9 of Appendix A-4 of 40 C.F.R. § 60 and the procedures in §60.11 shall be used to determine opacity. [Rule.19.304 and 40 C.F.R. § 60.675(b)(2)]

210. 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.

[Rule.19.304 and 40 C.F.R. § 60.675(c)(1)]

211. 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. [Rule.19.304 and 40 C.F.R. § 60.675(c)(3)]
212. 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. [Rule.19.304 and 40 C.F.R. § 60.675(g)]
213. 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. [Rule.19.304 and 40 C.F.R. § 60.676(b)(1)]
214. 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). [Rule.19.304 and 40 C.F.R. § 60.676(f)]

215. 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. [Rule.19.304 and 40 C.F.R. § 60.676(h)]
216. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. [Rule.19.304 and 40 C.F.R. § 60.676(i)]
217. 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). [Rule.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)).
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.

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

<p>For * * *</p>	<p>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) * * *</p>	<p>The owner or operator must demonstrate compliance with these limits by conducting * * *</p>
<p>Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008</p>	<p>7 percent opacity</p>	<p>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);</p>

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

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 Conditions #222 and #224 and equipment limitations. [Rule.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

219. 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 #222 and #224 and equipment limitations. [Rule.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

220. 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%	Rule.18.501, Rule.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

221. Weekly observations of the opacity from SN-47Qa and SN-47Qb shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.

- a. The date and time of the observation.
- b. If visible emissions which appeared to be above the permitted limit were detected.
- c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
- d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

222. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.18.1004, Rule.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



223. 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 #222 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. [Rule.18.1004, Rule.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]
224. 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. [Rule.18.1004, Rule.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]
225. 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 #220 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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]
226. 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. [Rule.19.304 and 40 C.F.R. § 60.672(b)]
227. 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). [Rule.19.304 and 40 C.F.R. § 60.674(b)]

228. 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.

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

229. 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. [Rule.19.304 and 40 C.F.R. § 60.674(b)(2)]

230. 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.

[Rule.19.304 and 40 C.F.R. § 60.675(c)(1)]

231. 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. [Rule.19.304 and 40 C.F.R. § 60.675(c)(3)]
232. 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. [Rule.19.304 and 40 C.F.R. § 60.675(g)]
233. 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. [Rule.19.304 and 40 C.F.R. § 60.676(b)(1)]
234. 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). [Rule.19.304 and 40 C.F.R. § 60.676(f)]
235. 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. [Rule.19.304 and 40 C.F.R. § 60.676(h)]
236. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. [Rule.19.304 and 40 C.F.R. § 60.676(i)]
237. 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). [Rule.19.304 and 40 C.F.R. § 60.676(k)]

### Prevention of Significant Deterioration Conditions

238. The following provisions of 40 CFR 52.21(r)(6) apply to the Beneficiation project submitted in the modification application dated April 1, 2019. [Rule.19.304 and 40 C.F.R. § 52.21(r)(6)]
- a. The permittee shall document and maintain a record of the following information regarding the Beneficiation project: [Rule.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. [Rule.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 #238 (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 #238 (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).[Rule.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.

[Rule.19.304 and 40 CFR 52.21(r)(6)(vi)]

- 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)]

[Rule.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

239. 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 #243 and #245 and equipment limitations. [Rule.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

240. 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 #243 and #245 and equipment limitations. [Rule.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

241. 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%	Rule.18.501, Rule.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

242. Weekly observations of the opacity from SN-01P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

243. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.18.1004, Rule.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

244. The permittee shall maintain records of the amount of limestone processed at SN-01P in order to demonstrate compliance with Specific Condition #243 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. [Rule.18.1004, Rule.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]

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245. 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. [Rule.18.1004, Rule.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]
246. 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 #241 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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-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

247. 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 #251 and #254 and equipment limitations. [Rule.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

248. 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 #251 and #254 and equipment limitations. [Rule.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 Other HAPs (excluding HCl)	0.01	0.04
13P	PM	0.3	1.0
14P	PM	0.4	1.7
29P	PM	0.2	0.8

249. 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%	Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4- 311

250. Weekly observations of the opacity from SN-13P, SN-14P, and SN-29P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

251. Daily observations of the opacity from SN-12P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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]

252. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.18.1004, Rule.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

253. The permittee shall maintain records of the amount of lime processed at SN-14P in order to demonstrate compliance with Specific Condition #252 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. [Rule.18.1004, Rule.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]
254. Pipeline quality natural gas shall be the only fuel used to fire the heater located at source SN-12P. [Rule.18.1004, Rule.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

255. 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 #259 and equipment limitations. [Rule.19.501 *et seq.* 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

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256. 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 #259 and equipment limitations. [Rule.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 Other HAPs (excluding HCl)	0.02	0.06
19P	PM	1.8	7.7
	Total Other HAPs (excluding HCl)	0.01	0.05

257. 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%	Rule.19.503 and 40 C.F.R. § 52 Subpart E
19P	5%	Rule.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

258. Daily observations of the opacity from SN-18P and 19P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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]

259. The permittee shall use only pipeline quality natural gas to fire sources SN-18P and SN-19P. [Rule.18.1004, Rule.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]
260. 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 #257 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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

261. 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 #265 and #267 and equipment limitations. [Rule.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

262. 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 #265 and #267 and equipment limitations. [Rule.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

263. 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%	Rule.19.503 and 40 C.F.R. § 52 Subpart E
24P	5%	Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311

264. Weekly observations of the opacity from SN-20P and SN-24P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- The date and time of the observation.
  - If visible emissions which appeared to be above the permitted limit were detected.
  - If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

265. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [Rule.18.1004, Rule.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

266. 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 #265 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. [Rule.18.1004, Rule.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]
267. The permittee shall maintain flexible strips (canvas or plastic) at the building(s) partially enclosing source SN-20P. [Rule.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-26P  
Paved PLS/Lime Plant Roads

Source Descriptions

The plant roads were paved in 2002.

Specific Conditions

268. 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. [Rule.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

269. 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. [Rule.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

270. 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. [Rule.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

271. 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. [Rule.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

272. 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%	Rule.18.501, Rule.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%	Rule.18.501, Rule.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

273. Weekly observations of the opacity from SN-30P, SN-33P, and SN-34P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.

- a. The date and time of the observation.
- b. If visible emissions which appeared to be above the permitted limit were detected.
- c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
- d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

274. 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 #272 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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-35P  
 Quicklime Fines Rail Unloading Pit

Source Description

Emissions are generated by the unloading of railcars containing lime.

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 equipment limitations. [Rule.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

276. 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. [Rule.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

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
35P	20%	Rule.19.503 and 40 C.F.R. § 52 Subpart E

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278. Weekly observations of the opacity from SN-35P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.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

279. 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. [Rule.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

280. 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. [Rule.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

281. 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%	Rule.18.501, Rule.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

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282. Weekly observations of the opacity from SN-36P shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Division of Environmental Quality personnel upon request.
- a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.

[Rule.18.501 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

283. 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 #281 and Plantwide Conditions #14 through #19. [Rule.19.304 and 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]

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## **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 rules and 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. [Rule 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. [Rule 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 Division of Environmental Quality or within 180 days of permit issuance if no date is specified. The permittee must notify the Division of Environmental Quality 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 Division of Environmental Quality within sixty (60) calendar days after completing the testing. [Rule 19.702 and/or Rule 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.

[Rule 19.702 and/or Rule 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. [Rule 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. [Rule 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

7. Unless otherwise specified in the permit, approval to construct any new major stationary source or a major modification subject to 40 C.F.R. § 52.21 shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Division of Environmental Quality may extend the 18-month period upon a satisfactory showing that an extension is justified. [Rule 19.901 *et seq.* and 40 C.F.R. § 52 Subpart E]

NSPS Subpart HH (SN-11Q, 24Q, and 30Q)

8. 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), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
9. Visible emissions may not exceed the limits specified in the following table. Compliance with the opacity limits shall be demonstrated through compliance with Plantwide Condition #8. [Rule.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
11Q 24Q 30Q	15%	Rule.18.501, Rule.19.304 and Rule.19.901 <i>et seq.</i> , 40 C.F.R. § 60.342(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

10. 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. [Rule.19.304, Rule.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]

11. 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. [Rule.19.304 and 40 C.F.R. § 60.343(e)]
12. 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 40 C.F.R. § 60.344, except as provided in §60.8(b). Performance testing for SN-11Q was performed in April 2001. [Rule.19.304, Rule.19.702, 40 C.F.R. § 52 Subpart E, and 40 C.F.R. § 60.344]
13. 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. [Rule.19.304 and Rule.19.501 *et seq.*, 40 C.F.R. § 60.342(a)(1), and 40 C.F.R. § 52 Subpart E]

#### NSPS Subpart OOO

14. 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 40 C.F.R. §60.675, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section. [§19.304 of Rule #19 and 40 C.F.R. §60.675(a)]
15. 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 Rule #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.

16. 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 Rule #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.
17. 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 Rule #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.
18. 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 Rule #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.
19. 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 Rule #19 and 40 CFR §60.676(f)]

Kiln Conditions SN-11Q, SN-24Q, and SN-30Q

20. The permittee shall conduct testing for HCl on one of the Rotary Lime Kilns (SN-11Q, SN-24Q, or SN-30) annually. The division reserves the right to select the kiln to be

tested. The kiln tested shall be rotated so that no kiln is tested twice before another kiln is tested once. Testing shall be conducted at an operating rate of at least 90% of 750.0 tons per day for SN-30Q and 687 tons per day for SN-11Q and SN-24Q. The initial test shall be conducted on SN-11Q or SN-24Q and shall be performed no later than March 29, 2024.

- a. The permittee shall use an EPA-approved method appropriate for testing lime kilns for HCl, such as ASTM D6735-01 with the provisions in 40 C.F.R. § 63.7142(a)(4)(i) through (vi). (Refer to NESHAP AAAAA, 40 C.F.R. § 63.7142(a) for some other approved testing methods.)
- b. This test shall be conducted every year and in accordance with Plantwide Condition #3.
- c. Testing shall be conducted with the source operating at least 90% of its permitted capacity in tons of lime per day.
- d. Emission testing results shall be extrapolated to correlate with 100% of the permitted capacity to demonstrate compliance. Failure to test within this range shall limit the permittee to operating within 10% above the tested rate.
- e. The permittee shall measure the operation rate during the test, and if testing is conducted below 90% of the permitted capacity, records shall be maintained at all times to demonstrate that the source does not exceed operation at 10% above the tested rate.

[Rule 19.702 and/or Rule 18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

#### CAM QIP (Compliance Assurance Monitoring Quality Improvement Plan) Provisions

21. The permittee shall install, calibrate, and operate a COMS for SN-11Q, SN-24Q, and SN-30Q according to Performance Specification-1 of Appendix B to Part 60. 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 recertify the COMS by the Division. [Reg.19.304 and 40 C.F.R. § 64]
22. The permittee shall operate and maintain a fabric filter on SN-11Q, SN-24Q, and SN-30Q at all times that the units are operating such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [Reg.19.304 and 40 C.F.R. § 64]
23. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [Reg.304 and 40 C.F.R. § 64]
24. The permittee must inspect each capture/collection and closed vent system, e.g. fabric filters and associated ductwork, at least once each calendar year to ensure that each system is operating in accordance with the design specification of the equipment. These records shall be maintained on site and made available to Division personnel upon request. [Reg.19.304 and 40 C.F.R. § 64]

25. The permittee shall maintain records that summarize the number, duration, and cause of excursions or exceedances of limits as well as corrective actions taken. [Reg.19.304 and 40 C.F.R. §§ 64.9(a)(2)(i) and 40 C.F.R. § 64]
26. The permittee shall utilize a QIP (quality improvement plan) threshold of no more than 5 percent of 6-minute block average opacity readings being exceedances (that is, opacity is above the permit limit) or excursions (that is, some other parameter outside an appropriate range for this type of reading) per six-month reporting period, for each source. Upon exceedance of this QIP threshold, the permittee shall then develop a QIP for that source. [Reg.19.304 and 40 C.F.R. § 64]
27. The permittee shall maintain records that describe the actions taken to implement a quality improvement plan (QIP), and upon completion of the QIP, documentation shall be maintained to confirm that the plan was completed and reduced the likelihood of similar excursions or exceedances. [Reg.19.304 and 40 C.F.R. § 64]
28. The permittee shall submit information pertaining to exceedances or excursions from permitted values in semi-annual reports in accordance with General Provision 7. [Reg.19.304 and 40 C.F.R. §64]
29. For sources subject to Compliance Assurance Monitoring (CAM) requirements involving daily opacity readings (13Q, 15Q, 25Q, 32Q, 12P, 18P, and 19P), the permittee shall comply with the CAM requirements for a Quality Improvement Plan (QIP) as follows:
  - a. The permittee shall maintain records that summarize the number, duration, and cause of excursions or exceedances of limits as well as corrective action taken. [Rule.19.304 and 40 C.F.R. §§ 64.9(a)(2)(i) and 64.9(b)]
  - b. Maintain a QIP (quality improvement plan) threshold of no more than 5 percent of daily opacity readings being exceedances (that is, opacity is above the permit limit) or excursions (that is, some other parameter is outside an appropriate range for this type of reading) per six-month reporting period, for each source. Upon exceedance of this threshold, the permittee shall then develop a QIP for that source. [Rule.19.304 and 40 C.F.R. §§ 64.9(a)(2)(iii) and 64.9(b)]
  - c. Maintain records that describe the actions taken to implement a quality improvement plan (QIP), and upon completion of the QIP, documentation shall be maintained to confirm that the plan was completed and reduced the likelihood of similar excursions or exceedances. [Rule.19.304 and 40 C.F.R. §§ 64.9(a)(2)(iii) and 64.9(b)]
  - d. Submit information pertaining to exceedances or excursions from permitted values in semi-annual reports in accordance with General Provision 7. [40 C.F.R. § 70.6(a)(3)(iii)(A)]

30. The permittee shall not exceed 9.9 tpy of any individual HAP or 24.9 tpy of Total HAP from the facility per twelve month rolling total. [Rule.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
31. The permittee shall demonstrate compliance with Plantwide Condition #30 by developing an annual emissions inventory of HAPs from the facility. These records shall be kept on site and made available to Department personnel upon request. [Rule.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

#### Title VI Provisions

32. 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.
33. 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.

- 34. 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.
- 35. 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.

- 36. 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

- 37. 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



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Source No.	Regulation	Description
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, 19P, and 30Q	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 June 8, 2020.

#### Inapplicable Regulations

Source No.	Regulation	Description
Gasoline Storage Tank	40 CFR Part 63 Subpart CCCCCC	Gasoline Dispensing Facilities (area sources)
Facility	40 CFR Part 68	Chemical Accident Prevention

**SECTION VII: INSIGNIFICANT ACTIVITIES**

The Division of Environmental Quality 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 Rule 18 and Rule 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 an application dated June 8, 2020. [Rule 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 Rule 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 Rule 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 Rule 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 Rule 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 Division of Environmental Quality takes final action on the renewal application. The Division of Environmental Quality will not necessarily notify the permittee when the permit renewal application is due. [Rule 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 Rule 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 Rule 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 Rule 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 Rule 26.2 must certify all required reports. The permittee will send the reports electronically using <https://portal.adeq.state.ar.us> or mail them to the address below:

Division 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 Rule 26.701(C)(3)(a)]

8. The permittee shall report to the Division of Environmental Quality all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
  - a. For all upset conditions (as defined in Rule 19.601), the permittee will make an initial report to the Division of Environmental Quality 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 Division of Environmental Quality 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.

[Rule 19.601, Rule 19.602, Rule 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 Rule are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Rule 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 Rule 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 Rule 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 Rule 26.701(F)(2)]
12. The Division of Environmental Quality 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 Rule 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 Rule 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 Division of Environmental Quality 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 Rule 26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Rule 9. [40 C.F.R. § 70.6(a)(7) and Rule 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 Rule 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 Rule 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 Division of Environmental Quality 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 Rule 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 Rule 26.2. [40 C.F.R. § 70.6(c)(1) and Rule 26.703(A)]
20. The permittee must allow an authorized representative of the Division of Environmental Quality, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Rule 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 Division of Environmental Quality. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Rule 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 Division of Environmental Quality 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: [Rule 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 Division of Environmental Quality approval. The Division of Environmental Quality 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.

[Rule 18.314(A), Rule 19.416(A), Rule 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 Division of Environmental Quality approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Division of Environmental Quality 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 Division of Environmental Quality 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.

[Rule 18.314(B), Rule 19.416(B), Rule 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 Division of Environmental Quality approval. The Division of Environmental Quality 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.



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[Rule 18.314(C), Rule 19.416(C), Rule 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. [Rule 18.1001, Rule 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**

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

Source: [74 FR 51977](#), Oct. 8, 2009, unless otherwise noted.

### § 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.

### § 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.

## § 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 foot (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 foot (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 into 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.

#### **§ 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.

#### **§ 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.

#### **§ 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 to 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.

#### **§ 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  $\pm 1.7$  °C ( $\pm 3$  °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.

### § 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.

#### **§ 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.

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# **APPENDIX B**

## Subpart HH—Standards of Performance for Lime Manufacturing Plants

Source: [49 FR 18080](#), Apr. 26, 1984, unless otherwise noted.

### § 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.

### § 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.

### § 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.

### § 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]

#### **§ 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]

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# **APPENDIX C**

## Subpart 000—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: [74 FR 19309](#), Apr. 28, 2009, unless otherwise noted.

### § 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.

### § 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.

#### **§ 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.

#### **§ 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.

#### **§ 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](#).

#### **§ 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.

$$v_e = \frac{Q_f}{A_e} \quad (\text{Eq. 1})$$

Where:

$V_e$  = average building vent velocity (feet per minute);

$Q_f$  = average fan flow rate (cubic feet per minute); and

$A_e$  = 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.

**§ 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\(b\)](#), [\(c\)](#) 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\(b\)](#).

**Table 1 to Subpart OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO**

Subpart A reference	Applies to subpart OOO	Explanation
60.4, Address	Yes	Except in <a href="#">§ 60.4(a)</a> and <a href="#">(b)</a> submittals need not be submitted to both the EPA Region and delegated State authority ( <a href="#">§ 60.676(k)</a> ).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced ( <a href="#">§ 60.676(h)</a> ).



Subpart A reference	Applies to subpart OOO	Explanation
		Also, except in (a)(6) performance tests involving only Method 9 ( <a href="#">40 CFR part 60, appendix A-4</a> ) require a 7-day advance notification instead of 30 days ( <a href="#">§ 60.675(g)</a> ).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 ( <a href="#">40 CFR part 60, appendix A-4</a> ) require a 7-day advance notification instead of 30 days ( <a href="#">§ 60.675(g)</a> ).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions ( <a href="#">§§ 60.675(c)</a> ), Method 9 ( <a href="#">40 CFR part 60, appendix A-4</a> ) 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 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems**

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in <a href="#">§§ 60.670 and 60.671</a> ) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	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 <a href="#">§ 60.8 of this part</a> and <a href="#">§ 60.675 of this subpart</a> ; and Monitoring of wet scrubber parameters according to <a href="#">§ 60.674(a)</a> and <a href="#">§ 60.676(c), (d), and (e)</a> .
Affected facilities (as defined in <a href="#">§§ 60.670 and 60.671</a> ) 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 <a href="#">§ 60.8 of this part</a> and <a href="#">§ 60.675 of this subpart</a> ; and Monitoring of wet scrubber parameters according to <a href="#">§ 60.674(a)</a> and <a href="#">§ 60.676(c), (d), and (e)</a> ; and Monitoring of baghouses according to <a href="#">§ 60.674(c), (d), or (e)</a> and <a href="#">§ 60.676(b)</a> .

<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.

**Table 3 to Subpart OOO of Part 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 meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
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.

# **APPENDIX D**

## Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: [71 FR 39172](#), July 11, 2006, unless otherwise noted.

### What This Subpart Covers

#### § 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](#), 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; [86 FR 34357](#), June 29, 2021]

### 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 1039.101](#), [1039.102](#), [1039.104](#), [1039.105](#), [1039.107](#), and [1039.115](#) and [40 CFR part 1039, appendix I](#), 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 appropriate Tier 2 emission standards for new marine CI engines as described in [40 CFR part 1042, appendix I](#), for all pollutants, for the same displacement and rated 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 [\(c\)](#) of this section may be certified to the provisions of [40 CFR part 1042](#) for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power 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 part 1039, appendix I](#), 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; [86 FR 34357](#), June 29, 2021]

#### **§ 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 Tier 2 emission standards for new nonroad CI engines for the appropriate rated power as described in [40 CFR part 1039, appendix I](#), for all pollutants and the smoke standards as specified in [40 CFR 1039.105](#) 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 rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in [40 CFR part 1039, appendix I](#), for all pollutants and the smoke standards as specified in [40 CFR 1039.105](#) 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 Tier 2 emission standards as described in [40 CFR part 1039, appendix I](#), for all pollutants and the smoke standards as specified in [40 CFR 1039.105](#).

(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 appropriate Tier 2 emission standards for new marine CI engines as described in [40 CFR part 1042, appendix I](#), for all pollutants, for the same displacement and rated 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 ICE identified in [paragraphs \(a\)](#) and [\(c\)](#) of this section may be certified to the provisions of [40 CFR part 1042](#) for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power if the engines will be used solely in either or both of the locations identified in [paragraphs \(g\)\(1\)](#) and [\(2\)](#) of this section. Engines that would be subject to the Tier 4 standards in [40 CFR part 1042](#) that are used solely in either or both of the locations identified in [paragraphs \(g\)\(1\)](#) and [\(2\)](#) of this section may instead continue to be certified to the previous tier of standards in [40 CFR part 1042](#). The previous tier is Tier 3 in most cases; however, the previous tier is Tier 2 if there are no Tier 3 standards specified for engines of a certain size or power rating.

(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; [86 FR 34358](#), June 29, 2021; [88 FR 4471](#), Jan. 24, 2023]

### **§ 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]

### **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?**

(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 Tier 1 emission standards in [40 CFR part 1042, appendix I](#).

(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 AECs as specified in [40 CFR 1039.665](#) must meet the Tier 1 certification emission standards for new nonroad CI engines in [40 CFR part 1039, appendix I](#), while the AEC 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 AEC 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; [86 FR 34358](#), June 29, 2021]

**§ 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 Tier 1 emission standards in [40 CFR part 1042, appendix I](#).

(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; [86 FR 34358](#), June 29, 2021]

**§ 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]

**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?**

(a) [Reserved]

(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 1090.305](#) 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 must use diesel 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; [85 FR 78463](#), Dec. 4, 2020]

**Other Requirements for Owners and Operators**

**§ 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]

#### **§ 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]

#### **Compliance Requirements**

#### **§ 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 1039, subpart C](#), and [must](#) test their engines as specified in [40 CFR part 1039](#). For the purposes of this subpart, engines certified to the standards in Table 1 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in [40 CFR part 1039, appendix I](#). For the purposes of this subpart, engines certified to the standards in Table 4 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in [40 CFR part 1039, appendix I](#), 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 1042, subpart C](#), and must test their engines as specified in [40 CFR part 1042](#).

(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 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 part 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 part 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 part 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 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 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 part 1039, appendix I](#), 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](#).

(k) Manufacturers of any size may certify their emergency stationary CI internal combustion engines under this section using assigned deterioration factors established by EPA, consistent with [40 CFR 1039.240](#) and [1042.240](#).

[[71 FR 39172](#), July 11, 2006, as amended at [76 FR 37969](#), June 28, 2011; [81 FR 44219](#), July 7, 2016; [86 FR 34358](#), June 29, 2021]

#### **§ 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 part 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 to emission standards for the same model year and maximum engine power as described in [40 CFR parts 1039](#) and [1042](#), as applicable. 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, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), 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 the purpose specified in [paragraph \(f\)\(2\)\(i\)](#) 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)–(iii) [Reserved]

(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 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 AECs 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; [86 FR 34359](#), June 29, 2021; [87 FR 48605](#), Aug. 10, 2022]

### **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?**



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, f](#), for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to [40 CFR part 1042, subpart F, 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. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in [40 CFR part 1039, appendix I](#), or with Tier 2 emission standards as described in [40 CFR part 1042, appendix I](#), may follow the testing procedures specified in [§ 60.4213](#), as appropriate.

(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 subject to Tier 2 or Tier 3 emission standards as described in [40 CFR part 1039, appendix I](#), or Tier 2 emission standards as described in [40 CFR part 1042, appendix I](#), must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in [40 CFR part 1039](#) or [1042](#), as applicable.

(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; [86 FR 34359](#), June 29, 2021]

### **§ 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:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

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.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{O}_2} \quad (\text{Eq. 3})$$

Where:

$C_{\text{adj}}$  = Calculated  $\text{NO}_x$  or PM concentration adjusted to 15 percent  $\text{O}_2$ .

$C_d$  = Measured concentration of  $\text{NO}_x$  or PM, uncorrected.

5.9 = 20.9 percent  $\text{O}_2$ –15 percent  $\text{O}_2$ , the defined  $\text{O}_2$  correction value, percent.

$\% \text{O}_2$  = Measured  $\text{O}_2$  concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent  $\text{O}_2$  and  $\text{CO}_2$  concentration is measured in lieu of  $\text{O}_2$  concentration measurement, a  $\text{CO}_2$  correction factor is needed. Calculate the  $\text{CO}_2$  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:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

$F_o$  = Fuel factor based on the ratio of  $\text{O}_2$  volume to the ultimate  $\text{CO}_2$  volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O<sub>2</sub>, percent/100.

F<sub>d</sub> = 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/10<sup>6</sup> Btu).

F<sub>c</sub> = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X<sub>CO<sub>2</sub></sub> = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub>–15 percent O<sub>2</sub>, the defined O<sub>2</sub> 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:

$$C_{\text{adj}} = C_d \frac{X_{\text{CO}_2}}{\% \text{CO}_2} \quad (\text{Eq. 6})$$

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:

$$\text{ER} = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 7})$$

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:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C<sub>adj</sub> = 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]

### **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?**

(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 for the purpose 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)–(vi) [Reserved]

(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 AECs pursuant to the requirements of [40 CFR 1039.665](#) must report the use of AECs 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; [87 FR 48606](#), Aug. 10, 2022]

## Special Requirements

### **§ 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]

#### **§ 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 Tier 2 or Tier 3 emission standards described in [40 CFR part 1042](#) for the same model year, displacement, and maximum engine power, as appropriate, rather than the otherwise applicable requirements of [40 CFR part 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 nonemergency CI ICE, the owner or operator of any such engine must have that engine certified as meeting at least the Tier 3 PM standards identified in appendix I of [40 CFR part 1039](#) or in [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; [86 FR 34359](#), June 29, 2021]

#### **§ 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]

## General Provisions

### § 60.4218 What General Provisions and confidential information provisions apply to me?

- (a) Table 8 to this subpart shows which parts of the General Provisions in [§§ 60.1](#) through [60.19](#) apply to you.
- (b) The provisions of [40 CFR 1068.10](#) and [1068.11](#) apply for engine manufacturers. For others, the general confidential business information (CBI) provisions apply as described in [40 CFR part 2](#).

[[88 FR 4471](#), Jan. 24, 2023]

## Definitions

### § 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 1042.101\(e\)](#).

*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\(f\)\(3\)\(i\)](#).

*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 III](#).

[[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; [86 FR 34360](#), June 29, 2021; [87 FR 48606](#), Aug. 10, 2022]

**Table 1 to Subpart III 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)

**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)

**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 § 60.4202(d) <sup>1</sup>
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]

**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)

Maximum engine power	Model year(s)	NMHC + NO <sub>x</sub>	CO	PM
	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.

**Table 5 to Subpart III 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

**Table 6 to Subpart III 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.

**Table 7 to Subpart III 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 requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder	a. Reduce NO <sub>x</sub> 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 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 <a href="#">40 CFR part 60, appendix A-1</a> , 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 <a href="#">40 CFR part 60, appendix A-4</a> .
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of <a href="#">40 CFR part 60, appendix A-2</a>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for NO <sub>x</sub> concentration.

Each	Complying with the requirement to	You must	Using	According to the following requirements
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of <a href="#">40 CFR part 60, appendix A-3</a> , Method 320 of <a href="#">40 CFR part 63, appendix A</a> , or ASTM D 6348-03 (incorporated by reference, see <a href="#">§ 60.17</a> )	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO <sub>x</sub> concentration.
		iv. Measure NO <sub>x</sub> at the inlet and outlet of the control device.	(3) Method 7E of <a href="#">40 CFR part 60, appendix A-4</a> , Method 320 of <a href="#">40 CFR part 63, appendix A</a> , or ASTM D 6348-03 (incorporated by reference, see <a href="#">§ 60.17</a> )	(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 <a href="#">40 CFR part 60, appendix A-1</a> , 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 <a href="#">40 CFR part 60, appendix A-4</a> .
		ii. Determine the O <sub>2</sub> concentration of the stationary internal	(1) Method 3, 3A, or 3B of <a href="#">40 CFR</a>	(b) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the

Each	Complying with the requirement to	You must	Using	According to the following requirements
		combustion engine exhaust at the sampling port location;	<a href="#">part 60, appendix A-2</a>	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 <a href="#">40 CFR part 60, appendix A-3</a> , Method 320 of <a href="#">40 CFR part 63, appendix A</a> , or ASTM D 6348-03 (incorporated by reference, see <a href="#">§ 60.17</a> )	(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 <a href="#">40 CFR part 60, appendix A-4</a> , Method 320 of <a href="#">40 CFR part 63, appendix A</a> , or ASTM D 6348-03 (incorporated by reference, see <a href="#">§ 60.17</a> )	(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 <a href="#">40 CFR part 60, appendix A-1</a>	(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 <a href="#">40 CFR part 60, appendix A-2</a>	(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 at the inlet and outlet of the control device; and	(3) Method 4 of <a href="#">40 CFR part 60, appendix A-3</a>	(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 <a href="#">40 CFR part 60, appendix A-3</a>	(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.

Each	Complying with the requirement to	You must	Using	According to the following requirements
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	<p>i. Select the sampling port location and the number of traverse points;</p> <p>ii. Determine the O<sub>2</sub> concentration of the stationary internal combustion engine exhaust at the sampling port location;</p> <p>iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and</p> <p>iv. Measure PM at the exhaust of the stationary internal combustion engine.</p>	<p>(1) Method 1 or 1A of <a href="#">40 CFR part 60, appendix A-1</a></p> <p>(2) Method 3, 3A, or 3B of <a href="#">40 CFR part 60, appendix A-2</a></p> <p>(3) Method 4 of <a href="#">40 CFR part 60, appendix A-3</a></p> <p>(4) Method 5 of <a href="#">40 CFR part 60, appendix A-3</a></p>	<p>(a) If using a control device, the sampling site must be located at the outlet of the control device.</p> <p>(b) Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for PM concentration.</p> <p>(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.</p> <p>(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.</p>

[[79 FR 11251](#), Feb. 27, 2014]

**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:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	Yes	
§ 60.2	Definitions	Yes	Additional terms defined in <a href="#">§ 60.4219</a> .
§ 60.3	Units and abbreviations	Yes	
§ 60.4	Address	Yes	



General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.5	Determination of construction or modification	Yes	
§ 60.6	Review of plans	Yes	
§ 60.7	Notification and Recordkeeping	Yes	Except that <a href="#">§ 60.7</a> only applies as specified in <a href="#">§ 60.4214(a)</a> .
§ 60.8	Performance tests	Yes	Except that <a href="#">§ 60.8</a> only applies to stationary CI ICE with a displacement of ( $\geq 30$ 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 III.
§ 60.12	Circumvention	Yes	
§ 60.13	Monitoring requirements	Yes	Except that <a href="#">§ 60.13</a> 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	

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