

ADEQ

ARKANSAS
Department of Environmental Quality

MAR 16 2015

Nathan O'Neill, Vice President & Plant Manager
Arkansas Lime Company
P. O. Box 2356
Batesville, AR 72503


Dear Mr. O'Neill:

The enclosed Permit No. 0045-AOP-R6 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 12/22/2014.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 0045-AOP-R6 for the construction and operation of equipment at Arkansas Lime Company to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,


Tammera Harrelson
Interim Deputy Director

Enclosure: Final Permit

RESPONSE TO COMMENTS

ARKANSAS LIME COMPANY

PERMIT #0045-AOP-R6

AFIN: 32-00014

On January 14, 2015 and January 15, 2015, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted on behalf of the facility.. The Department's response to these issues follows.

Note: The following page numbers and condition numbers refer to the draft permit. These references may have changed in the final permit based on changes made during the comment period.

Comment #1:

Specific Condition #266

In the table, PM10 should be changed to PM.

Response to Comment #1:

The permit has been updated as requested.

Comment #2:

Specific Conditions #274 and #275. Specific Condition #275 currently requires recordkeeping of trommel screen process throughput. The logistical problem is that the screen is located out in the quarry away from the plant where it is not practical to quantify the limestone throughput. We anticipated this during application preparation, and purposely permitted for the theoretical maximum annual capacity for the trommel screen ($500 \text{ tons/hr} * 8,760 \text{ hr/yr} = 4,380,000 \text{ tons/yr}$) in order to avoid this issue. It is our understanding that the ADEQ typically does not require throughput recordkeeping for sources permitted at theoretical maximum capacity. Additionally, note that the existing permit has a plant-wide limestone processing limit of 1,700,000 tons/year at the primary crusher SN-01 (see permit Specific Condition #5 in the permit, shown below), so the theoretical high limit for the trommel screen is effectively a non-issue.

This being the case, we ask that ADEQ remove the implied requirement measure the trommel screen throughput. This can be accomplished by inserting language in Specific Condition #274 noting that the equipment is permitted at theoretical maximum annual capacity, or that compliance with Permit Specific Condition #5 demonstrates compliance with the annual throughput limit at the trommel screen. This would negate the need for Specific Condition #275.

Response to Comment #2:

Specific Conditions 274 and 275 of the draft permit have been removed. Compliance with the annual emissions in Specific Conditions 270 and 271 of the draft permit are now demonstrated by complying with Specific Condition 5.

Comment #3:

Specific Condition #276. As currently written, this permit condition implies that water sprays must be installed. It is not certain at this point if water sprays will be necessary at all, given that the limestone material has inherent moisture of 5-10%. The current plan is to analyze the opacity of the emissions during the initial startup to see if water sprays will be necessary to meet the 7% opacity limit. If such is needed, the trommel screen will not operate again until the water spray system is installed. It will be logistically difficult to install the water spray equipment due to the remote locations that the trommel screen will be serving. This being the case, we propose the following modified language. 3

276. 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.

Response to Comment #3:

Specific Condition 276 as written in the draft permit affords the facility the flexibility that they are seeking. However, the Department accepts the proposed language change, and has updated the permit as requested.

Comment #4:

Specific Condition #265 and #266. These conditions contain the serial number of the engine that is currently envisioned to be used. It is possible that this engine would need to be replaced on short notice in case of malfunction. In order to minimize production outages and unnecessary future permit modifications, the following language is suggested as a footnote to the tables of these permit conditions.

** The serial number is associated with the engine that is anticipated at the time of permit application submission. This engine may be replaced without the need for a permit modification if the estimated hourly air pollutant emissions of the replacement engine are no greater than the limits contained in this permit. The permittee shall keep records of any engine replacements, including estimated hourly emissions rates of replacement engines.*

Response to Comment #4:

A footnote was added to Specific Conditions 265 and 266 of the draft permit indicating that the serial number represents what was proposed at the time of permit application submission.

To address the commenter's concerns regarding engine swapping, the following condition has been added to the permit:

The permittee may replace any currently permitted engine on a temporary or permanent basis with a replacement engine, which will have the same or lower permitted emission rates on a pound per hour and ton per year basis, have the same or lower horsepower, and do not violate any regulations promulgated by the EPA. The permittee shall notify ADEQ of the replacement within 30 days of startup. This does not apply to modifications which must go through the PSD applicability procedures as outlined in 40 CFR 52.21. Notwithstanding the above, as provided by Regulation 26, in the event an emergency occurs, the permittee shall have an affirmative defense of emergency to an action brought for non-compliance with technology-based emission limitations if the conditions of Regulation 26, Section 26.707 are met. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

ADEQ OPERATING AIR PERMIT

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

Permit No. : 0045-AOP-R6

IS ISSUED TO:

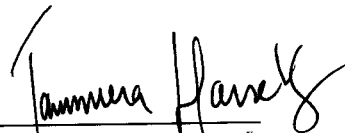
Arkansas Lime Company
600 Limedale Road
Batesville, AR 72503
Independence County
AFIN: 32-00014

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

January 21, 2011 AND January 20, 2016

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

Signed:



Tamera Harrelson
Interim Deputy Director

MAR 16 2015

Date

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

Table of Contents

SECTION I: FACILITY INFORMATION	5
SECTION II: INTRODUCTION.....	6
Summary of Permit Activity.....	6
Process Description.....	6
Regulations	10
Emission Summary	11
SECTION III: PERMIT HISTORY.....	16
SECTION IV: SPECIFIC CONDITIONS.....	19
SN-01Q and SN-02Q	19
SN-03Q, SN-09Q, & SN-10Q	22
SN-04Q	25
SN-05Q	27
SN-06Q and SN-29Q	29
SN-07Q	31
SN-11Q	34
SN-12Qa, SN-12Qb, & SN-13Q.....	44
SN-14Q & SN-15Q.....	46
SN-16Q, SN-17Q, & SN-18Q	48
SN-19Q, SN-20Q, & SN-21Q	50
SN-22Q	53
SN-24Q	55
SN-25Q	65
SN-26Q	67
SN-27Q	69
SN-28Q	71
SN-30Q	73
SN-31Q	82
SN-32Q	84
SN-33Q	86
SN-34Q	88
SN-35Q	89
SN-36Q & SN-37Q.....	91
SN-38Q & SN-39Q.....	93
SN-40Q	95
SN-41Q	96
SN-43Q	97
SN-44Q	102
SN-45Q	104
SN-46Q	106
SN-01P.....	111
SN-12P, SN-13P, SN-14P, & SN-29P	113
SN-18P & SN-19P	116
SN-20P & SN-24P	118

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

SN-26P	120
SN-30P, SN-31P, SN-33P, & SN-34P	121
SN-35P	123
SN-36P	125
SECTION V: COMPLIANCE PLAN AND SCHEDULE.....	127
SECTION VI: PLANTWIDE CONDITIONS.....	128
NSPS Subpart OOO.....	129
MACT AAAAA.....	130
Title VI Provisions	131
Permit Shield.....	132
SECTION VII: INSIGNIFICANT ACTIVITIES.....	134
SECTION VIII: GENERAL PROVISIONS	135
Appendix A: 40 CFR 60 Subpart Y	
Appendix B: 40 CFR 60 Subpart HH	
Appendix C: 40 CFR 60 Subpart OOO	
Appendix D: 40 CFR Part 60 Subpart IIII	
Appendix E: 40 CFR Part 63 Subpart ZZZZ	
Appendix F: 40 CFR 63 Subpart AAAAA	

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM ₁₀	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

SECTION I: FACILITY INFORMATION

PERMITTEE: Arkansas Lime Company

AFIN: 32-00014

PERMIT NUMBER: 0045-AOP-R6

FACILITY ADDRESS: 600 Limedale Road
Batesville, AR 72503

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

COUNTY: Independence County

CONTACT NAME: Nathan O'Neill

CONTACT POSITION: Vice President & Plant Manager

TELEPHONE NUMBER: (870) 793-2301

REVIEWING ENGINEER: Joseph Hurt

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

UTM East West (X): Zone 15: 615724.20 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Arkansas Lime Company owns and operates a limestone quarry and lime manufacturing plant near Batesville, in Independence County, Arkansas. The facility is adding a portable generator (SN-45Q) to provide power for the new trommel screen operations (SN-46Q). The permitted emission increases include 6.7 tpy PM, 2.7 tpy PM₁₀, 0.1 tpy SO₂, 12.0 tpy VOC, 10.5 tpy CO, 12.0 tpy NO_x, and 4.92E-02 tpy Total HAPs.

Process Description

Quarry

Arkansas Lime extracts high-grade limestone from its quarry located approximately 6.5 miles west-northwest of Batesville. Commercial bulk and bag explosives are used to blast limestone away from the quarry face. Front-end loaders transfer the rock into quarry trucks, which carry the limestone to the quarry dump hopper. The larger limestone rocks that cannot pass through the Grizzly are fed to the Primary Crusher (SN-01Q). The smaller rocks pass through the Grizzly and drop onto a conveyor belt. This conveyor catches the crushed rocks and drops the limestone onto either the Fine-Grained or Coarse-Grained Surge Pile (SN-04Q).

The reclaim tunnels under the Surge Piles feed limestone to the Triple-Deck (or Primary) Screen (SN-03Q). Rocks larger than that suitable for kiln feed (typically larger than 2 1/4" in diameter) are routed to a Secondary Crusher (SN-02Q). The crusher discharge is recycled back into the screen feed. Rocks suitable for kiln feed (typically 3/8" to 2 1/4" in diameter) are diverted to the Rotary Kiln Feed Surge Pile(s). Rocks smaller than that suitable for kiln feed are sent to the Pulverized Limestone (PLS)/Ag-Lime screen (SN-09Q).

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

Lime Kilns

Vibrating feeders reclaim the stone from the Kiln Feed Surge Pile and feed it to belt conveyors (SN-07Q). The belt conveyors transport the stone to the Kiln Feed Screen where any "fines" are removed and routed to the PLS Surge Pile. The limestone pebbles are conveyed to the Preheater Surge Bin (SN-07Q, SN-27Q, and SN-35Q) of one of the three Rotary Lime Kilns (SN-11Q, SN-

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

24Q, and SN-30Q). No fugitive emissions escape from the bin since it operates under a slight vacuum.

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



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

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

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

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

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

Coal and Coke Handling System

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

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

Weigh feeders and belt conveyors (SN-28Q) mix the coal and coke and transfer the mixture to one of three Fuel Bins (SN-26Q and SN-33Q). Each Fuel Bin holds one day's fuel mix and feed the Bowl Mill for each kiln directly. The coal/coke mixture is ground to a fine powder in the Bowl Mill and is then blown directly into each Rotary Kiln.

Lime Processing at the Lime Plant

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

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

Pulverized Limestone Plant (PLS)

Small limestone pebbles are transferred from the Quarry to the PLS/Lime plant via railcars. The limestone is dumped into the existing Dump Hopper (SN-35P) at the PLS/Lime Plant and conveyed to the Roller Mill Surge Bin. Alternatively, the limestone can be off loaded onto an emergency stockpile. The Surge Bin feeds the two Stone and Roller Mills (SN-18P and SN-19P) via screw conveyors. The two mills (#1 and #2) operate in parallel in the same manner.

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

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

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 in one of two locations: the 270 product storage tank or to the PLS Bagging Operations (SN-24P).

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

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

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

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

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

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

Portable Trommel Screen Operations

A portable trommel screen (SN-46Q), and an associated portable diesel fueled generator (SN-45Q), is used to screen overburden from the quarry for useable limestone rock. The equipment is periodically moved around the site to process the various overburden piles.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective September 13, 2014
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective November 18, 2012
40 CFR 60 Subpart Y, New Source Performance Standards for Coal Preparation Plants
40 CFR 60 Subpart HH, New Source Performance Standards for Lime Manufacturing Plants
40 CFR 60 Subpart OOO, New Source Performance Standards for Non Metallic Mineral Processing Plants
40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Compression Ignition Internal Combustion Engines
40 CFR 63 Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants
40 CFR 64, Compliance Assurance Monitoring
40 CFR 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 ^b	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	118.3	331.9
		PM ₁₀	64.4	206.1
		SO ₂	137.3	433.3
		VOC	16.2	64.6
		CO	269.4	1068.2
		NO _x	324.4	1261.8
		HCl	24.0	95.64
		Total HAPs (Excluding HCl)	1.12E-02	4.92E-02
01Q	Primary Crusher	PM	0.6	1.1
		PM ₁₀	0.3	0.5
02Q	Secondary Crusher	PM	0.5	1.0
		PM ₁₀	0.3	0.5
03Q	Triple Deck Screen	PM	1.4	3.7
		PM ₁₀	0.5	1.3
04Q	Storage Piles	PM	4.6	19.8
		PM ₁₀	2.3	9.9
05Q	Railcar Loadout	PM	0.1	0.1
		PM ₁₀	0.1	0.1
06Q	Unpaved Quarry Haul Roads	PM	23.7	51.8
		PM ₁₀	6.8	14.8
07Q	Conveyor Transfer Points	PM	16.0	22.8
		PM ₁₀	7.5	10.7
09Q	PLS/Ag-Lime Screen	PM	0.7	1.0
		PM ₁₀	0.3	0.4
10Q	Kiln Feed Screen	PM	0.6	1.6
		PM ₁₀	0.2	0.6

EMISSION SUMMARY				
Source Number	Description ^b	Pollutant	Emission Rates	
			lb/hr	tpy
11Q	Rotary Kiln 1	PM	6.9	27.4
		PM ₁₀	6.9	27.4
		SO ₂	44.8	141.7
		VOC	3.4	14.2
		CO	85.9	342.2
		NO _x	100.2	399.3
		HCl	8.00	31.88
12aQ	Kiln-Dust Bin Vent Dust Collector	PM	0.3	1.2
		PM ₁₀	0.3	1.2
12bQ	Kiln-Dust Loadout Dust Collector	PM	0.2	0.9
		PM ₁₀	0.2	0.9
13Q	#1 Lime Discharge (Nuisance Dust Collector)	PM	0.3	1.2
		PM ₁₀	0.3	1.2
14Q	Lime Product Silo Dust Collector	PM	0.2	0.9
		PM ₁₀	0.2	0.9
15Q	Lime Screen/Storage Dust Collector	PM	1.8	7.9
		PM ₁₀	1.8	7.9
16Q	Lime Loadout Dust Collector	PM	0.2	0.8
		PM ₁₀	0.2	0.8
17Q	Off-Spec Lime Loadout/Bin Vent	PM	0.2	0.8
		PM ₁₀	0.2	0.8
18Q	Lime Loadout to Railcars	PM	0.2	0.8
		PM ₁₀	0.2	0.8
19Q	Coal/Coke Receiving Area	PM	0.4	0.3
		PM ₁₀	0.2	0.2
20a/bQ	Coal/Coke Storage Piles	PM	0.5	2.1
		PM ₁₀	0.3	1.1
21Q	Coal/Coke Transfer Points	PM	0.3	0.2
		PM ₁₀	0.2	0.1
22Q	Ag-Lime Loadout to Truck	PM	0.1	0.1
		PM ₁₀	0.1	0.1
24Q	Rotary Kiln 2	PM	5.8	22.9
		PM ₁₀	5.8	22.9
		SO ₂	44.8	141.7
		VOC	3.4	14.2
		CO	85.9	342.2
		NO _x	100.2	399.3
		HCl	8.00	31.88

EMISSION SUMMARY				
Source Number	Description ^b	Pollutant	Emission Rates	
			lb/hr	tpy
25Q	#2 Lime Discharge (Nuisance Dust Collector)	PM	0.3	1.2
		PM ₁₀	0.3	1.2
26Q	#1 and #2 Coal Bin Vents	PM	0.3	1.2
		PM ₁₀	0.3	1.2
27Q	Kiln Feed Belt into #2 Kiln Surge Bin	PM	0.1	0.2
		PM ₁₀	0.1	0.1
28Q	#1 and #2 Coal/Coke Transfer Points	PM	0.1	0.1
		PM ₁₀	0.1	0.1
29Q	Paved Quarry/Kiln Area Roads	PM	13.8	30.1
		PM ₁₀	2.7	5.9
30Q	Rotary Lime Kiln 3	PM	5.8	22.9
		PM ₁₀	5.8	22.9
		SO ₂	44.8	141.7
		VOC	3.4	14.2
		CO	85.9	342.2
		NO _x	100.2	399.3
31Q	Transfer Points to Extended RKFS Pile	PM	0.7	1.9
		PM ₁₀	0.4	0.9
32Q	#3 Lime Discharge (Nuisance Dust Collector)	PM	0.3	1.2
		PM ₁₀	0.3	1.2
33Q	#3 Coal Bin Vent	PM	0.2	0.6
		PM ₁₀	0.2	0.6
34Q	#3 Coal/Coke Transfer Point	PM	0.1	0.1
		PM ₁₀	0.1	0.1
35Q	Kiln Feed Belt into #3 Kiln Surge Bin	PM	0.1	0.2
		PM ₁₀	0.1	0.1
36Q	Lime Storage Silo Dust Collector	PM	0.9	4.0
		PM ₁₀	0.9	4.0
37Q	Lime Storage Silo Dust Collector	PM	0.9	4.0
		PM ₁₀	0.9	4.0
38Q	Lime Loadout Dust Collector	PM	0.2	0.8
		PM ₁₀	0.2	0.8
39Q	Lime Loadout Dust Collector	PM	0.2	0.8
		PM ₁₀	0.2	0.8
40Q	LKD Truck Loading	PM	2.0	3.0
		PM ₁₀	1.0	1.4
41Q	LKD Truck Dumping	PM	2.0	3.0
		PM ₁₀	1.0	1.4

EMISSION SUMMARY				
Source Number	Description ^b	Pollutant	Emission Rates	
			lb/hr	tpy
43Q	Emergency Generator (Diesel, 350 hp)	PM	0.8	0.6
		PM ₁₀	0.8	0.6
		SO ₂	0.8	0.6
		VOC	0.9	0.7
		CO	2.4	1.8
		NO _x	10.9	8.2
44Q	Water Pump Engines (Diesel)	PM	1.8	7.8
		PM ₁₀	1.8	7.8
		SO ₂	1.7	7.2
		VOC	2.0	8.7
		CO	5.4	23.5
		NO _x	8.4	36.8
45Q	415 BHP Diesel-fired Portable Generator (Serial No. 2146055)	PM	0.2	0.6
		PM ₁₀	0.2	0.6
		SO ₂	0.1	0.1
		VOC	2.8	12.0 ^a
		CO	2.4	10.5
		NO _x	2.8	12.0 ^a
		Total HAPs	1.12E-02	4.92E-02
46Q	Portable Trommel Screen Operations	PM	1.4	6.1
		PM ₁₀	0.5	2.1
01P	Limestone Drop Points	PM	0.6	1.5
		PM ₁₀	0.3	0.7
12P	Hydrate Separator System Dust Collector	PM	1.9	8.1
		PM ₁₀	1.9	8.1
		SO ₂	0.1	0.1
		VOC	0.1	0.2
		CO	0.4	1.5
		NO _x	0.4	1.8
13P	Hydrate Storage Tank Loadout	PM	0.3	1.0
		PM ₁₀	0.3	1.0
14P	Hydrated Lime Bagging Operations	PM	0.4	1.7
		PM ₁₀	0.2	0.6
18P	Stone and Roller Mill Plant #1	PM	2.6	11.4
		PM ₁₀	2.6	11.4
		SO ₂	0.1	0.1
		VOC	0.1	0.2
		CO	0.6	2.3
		NO _x	0.7	2.8

EMISSION SUMMARY				
Source Number	Description ^b	Pollutant	Emission Rates	
			lb/hr	tpy
19P	Stone and Roller Mill Plant #2	PM	1.8	7.7
		PM ₁₀	1.8	7.7
		SO ₂	0.1	0.1
		VOC	0.1	0.2
		CO	0.5	2.0
		NO _x	0.6	2.3
20P	PLS Screening Operations	PM	1.4	6.0
		PM ₁₀	0.4	1.5
24P	PLS Bagging Operations	PM	0.4	1.7
		PM ₁₀	0.2	0.6
26P	Paved PLS/Lime Plant Roads	PM	7.3	15.9
		PM ₁₀	1.5	3.1
29P	Hydrate Storage Dust Collector	PM	0.2	0.8
		PM ₁₀	0.2	0.8
30P	Consolidated PLS Loadout Bin Vent	PM	0.4	1.5
		PM ₁₀	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 ₁₀	0.2	0.8
34P	Consolidated PLS 270 Railcar Drop-Out	PM	0.2	0.8
		PM ₁₀	0.2	0.8
35P	Quicklime Fines Rail Unloading Pit	PM	2.6	11.4
		PM ₁₀	0.9	3.8
36P	Modified PLS Products Loading Station	PM	0.2	0.8
		PM ₁₀	0.2	0.8

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

**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

a. Combined VOC and NO_x limits per tier 3 engine standards from 40 CFR 89.112(a).

b. The serial number for SN-45Q represents what was proposed at the time of permit application submission.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

SECTION III: PERMIT HISTORY

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

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

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

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

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

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

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

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

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

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

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

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

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 %O₂ ranges used to demonstrate compliance with the NO_x and CO limits for each kiln; updated the Insignificant Activities List; changed the averaging period for production limits; changed the monitoring requirements for NO_x emissions; installed a new Modified PLS Products Loading Station (SN-36P); quantified emissions of HCl from the kilns; increased SO₂ 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 PM₁₀, CO, and NO_x, at the rotary kiln sources, SN-11Q, SN-24Q, and SN-30Q from annual testing to once every five years. The tons of limestone products increased per consecutive 12 month period at Ag-Lime Loadout to Truck, SN-22Q, from 100,000 to 200,000 tons per year. Clarification of particulate testing for the rotary kiln sources, SN-11Q, SN-24Q, and SN-30Q. Clarification of the language for operation of water

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

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

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

- SN-12Qa, SN-12Qb, and SN-17Q emissions were updated to reflect the process maximum capacity therefore previous Specific Conditions concerning synthetic limitations were removed.
- Synthetic long term (annual) production limits for the kilns were added to the Specific Condition concerning short-term production limits.
- The emergency generator was removed from the insignificant activity list and is being designated SN-43Q.
- The Water Pump Engines were added to the permit as SN-44Q
- The hydrate reject discharge (SN-44P) was reclassified as an insignificant activity.
- The periodic five-year testing conditions were clarified to state the testing is required by June 30th 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 PM₁₀, 8.1 tpy SO₂, 9.6 tpy VOC, 27.4 tpy CO, and 47.7 tpy NO_x.

SECTION IV: SPECIFIC CONDITIONS

SN-01Q and SN-02Q
 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-02Q. The SN-01Q crusher was last replaced in 2006. The SN-02Q crusher was installed in 2000.

The crushers are both subject to 40 CFR Part 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. [§19.501 et seq. of Regulation #19, effective January 25, 2009 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
01Q	PM ₁₀	0.5	0.5
02Q	PM ₁₀	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. [§18.801 of Regulation #18, effective January 25, 2009, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
01Q	PM	0.6	1.1
02Q	PM	0.5	1.0

3. 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
01Q	15%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(c), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
02Q	15%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(c), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

4. The permittee shall conduct weekly observations of the opacity from sources SN-01Q and SN-02Q 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. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 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
01Q	1,700,000
02Q	1,640,000

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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

7. The permittee shall maintain and operate water sprays located upstream in the process in order to reduce fugitive emissions from source SN-01Q and SN-02Q. The water sprays shall be used whenever the material dampness is not sufficient to adequately control fugitive emissions. [§18.1104 of Regulation #18, §19.303 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

8. Sources SN-01Q and SN-02Q are subject to 40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO can be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the requirements found in Specific Condition #3 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-03Q, SN-09Q, & SN-10Q
Quarry Limestone Screens

Source Description

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

These sources are subject to 40 CFR Part 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
03Q	PM ₁₀	0.5	1.3
09Q	PM ₁₀	0.3	0.3
10Q	PM ₁₀	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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
03Q	PM	1.4	3.7
09Q	PM	0.7	0.9
10Q	PM	0.6	1.6

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

Source	Limit	Regulatory Citation
03Q	10%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
09Q	10%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
10Q	10%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

12. The permittee shall conduct weekly observations of the opacity from sources SN-03Q, SN-09Q, and SN-10Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and/or 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
03Q	3,362,000
09Q	822,000

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

Source	Tons of Limestone per consecutive 12 month period
10Q	1,368,750

14. The permittee shall maintain records of the amounts of limestone processed at sources SN-03Q, 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, and A.C.A. §8-4-203 as referenced by §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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
16. Sources SN-03Q, SN-09Q, and SN-10Q are subject to 40 CFR 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 items found in Specific Condition #11 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §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 and 2005.

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 #21 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	2.3	9.9

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 #21 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	4.6	19.8

19. 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
04Q	20%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

20. The permittee shall conduct daily observations of the opacity from source SN-04Q 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. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

21. 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §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

22. 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 #26 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.1	0.1

23. 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 #26 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.1	0.1

24. 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
05Q	20%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E

25. The permittee shall conduct daily observations of the opacity from source SN-05Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
26. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

27. The permittee shall maintain records of the number of railcars loaded out at SN-05Q in order to demonstrate compliance with Specific Condition #26 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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

28. 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 #30 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
06Q	PM ₁₀	6.8	14.8
29Q	PM ₁₀	2.7	5.9

29. 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 #30 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
06Q	PM	23.7	51.8
29Q	PM	13.8	30.1

30. The permittee shall water the haul roads as necessary in order to reduce fugitive emissions. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
31. 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. [Regulation 18, §18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

32. Dust suppression activities must be conducted in a manner and at a rate of application that will not cause runoff from the area being applied. Best Management Practices (40 CFR §122.44(k)) should be used around streams and waterbodies to prevent the dust suppression agent from entering Waters of the State. Except for potable water, no agent shall be applied within 100 feet of wetlands, lakes, ponds, springs, streams, or sinkholes. Failure to meet this condition may require the permittee to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the Department's Water Division, in accordance with 40 CFR §122.1(b). [A.C.A. §8-4-203 as referenced by A.C.A. §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.

Source SN-07Q is subject to 40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants and 40 CFR Part 63, Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Specific Conditions

33. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	7.5	10.7

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

Pollutant	lb/hr	tpy
PM	16.0	22.8

35. 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
07Q	10%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), 40 CFR §63.7080 Table 1, Item 7, 40 CFR §63.7080 Table 3, Item 4, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

36. The permittee shall conduct weekly observations of the opacity from source SN-07Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
37. 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
38. Source SN-07Q is subject to 40 CFR 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 #35 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
39. Transfer Point D06 (Kiln Feed Belt into Stone Bin) of Source SN-07Q is subject to the provisions of 40 CFR Part 63, Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #35 and #40 and Plantwide Conditions #13 through #15. [40 CFR §63.7080 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Arkansas Lime Company

Permit #: 0045-AOP-R6

AFIN: 32-00014

40. Source SN-07Q has been defined as an existing processed stone handling (PSH) operation because construction or reconstruction began before December 20, 2002. [§19.304 of Regulation #19 and 40 CFR §63.7082(b)]

SN-11Q
 Rotary Lime Kiln 1

Source Description

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

This source is subject to 40 CFR Part 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants, 40 CFR Part 63, Subpart AAAAA - National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

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

Pollutant	BACT Limit	BACT Determination
SO ₂	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 _x	3.5 lb NO _x per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation

Specific Conditions

41. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #46, #48, #53, #56, #64, and #78 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	6.9	27.4
VOC	3.4	14.2
CO	85.9	342.2

42. 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 #46, #48, #53, #73, and #75 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
SO ₂	44.8	141.7
NO _x	100.2	399.3

43. 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 #46, #48, #53, #56, and #64 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	6.9	27.4
HCl	8.0	31.88

44. 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
11Q	15%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.342(a)(2), 40 CFR §63.7080 Table 2, Item 1, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

45. The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40% opacity. The recordings shall be kept on site and made available to Department personnel upon request. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.343(a), 40 CFR §63.7113(g), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

46. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

47. 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 #46 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. [§19.705 and §19.901 et seq. of Regulation #19, and 40 CFR Part 52, Subpart E]

48. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Lime per day
11Q	687.0

49. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Lime Per Year
11Q	228,125

50. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #48 and #49 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. [§19.705 of Regulation #19 and 40 CFR Part 52, Subpart E]

51. 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. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

52. 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. [§19.702 and §19.901 et seq. of Regulation #19, and 40 CFR Part 52, Subpart E]
53. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
54. The permittee shall test SN-11Q every five years for particulate matter using EPA Reference Method 5. Results shall be used in order to demonstrate compliance with the particulate emission limits of Specific Condition #41. All tests shall take place in accordance with Plantwide Condition #3 and shall occur by June 30 of the testing year. The most recent test date for this source is April 2008.

NSPS Subpart HH

55. Source SN-11Q is subject to the provisions of 40 CFR Part 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants. A copy of Subpart HH has been included in Appendix B of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #56 through #60. [40 CFR §60.340(a) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
56. 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. [§19.304 and §19.501 et seq. of Regulation #19, 40 CFR §60.342(a)(1), and 40 CFR Part 52, Subpart E]
57. The owner or operator shall determine compliance with the particulate matter standards in Specific Condition #56 as follows. Performance testing for SN-11Q was performed on April, 2001. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.344(b)(1) through (4), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

$$E = (Cs Qsd)/PK$$

where:

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

P = stone feed rate, Mg/hr (ton/hr)
K = conversion factor, 1000 g/kg (453.6g/lb)

- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
 - c. The monitoring device of §60.343(d) (Specific Condition #58) shall be used to determine the stone feed rate (P) for each run.
 - d. Method 9 and the procedures in §60.11 shall be used to determine opacity.
58. 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. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.343(d), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
59. 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. [§19.304 of Regulation #19 and 40 CFR §60.343(e)]
60. 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). [§19.304 and §19.702 of Regulation #19, 40 CFR Part 52, Subpart E, and 40 CFR §60.344(a)]

MACT AAAAA

61. Source SN-11Q is subject to the provisions of 40 CFR Part 63, Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #62 through #72 and Plantwide Conditions #13 through #15. [40 CFR §63.7080 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

62. Source SN-11Q has been defined as an existing lime kiln because construction or reconstruction began before December 20, 2002. [§19.304 of Regulation #19 and 40 CFR §63.7082(e)]
63. Because SN-11Q has been defined as an existing source, the permittee must comply with the limitations set forth in Specific Conditions #63 through #72 by January 5, 2007. [§19.304 of Regulation #19 and 40 CFR §63.7083(b)]
64. Particulate emissions from SN-11Q shall not exceed 0.12 lbs per ton of stone fed. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 1, Item 1]
65. The owner or operator shall determine compliance with the MACT particulate matter standards in Specific Condition #64 as follows: [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 3, Item 1 and §63.7111]
- a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:
- $$E = (Cs Qsd)/PK$$
- where:
- E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed
Cs = concentration of particulate matter, g/dscm (g/dscf)
Qsd = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P = stone feed rate, Mg/hr (ton/hr)
K = conversion factor, 1000 g/kg (453.6g/lb)
- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
- c. The monitoring device of Specific Condition #58 shall be used to determine the stone feed rate (P) for each run.
- d. The permittee shall conduct the performance test of #65 a, b, and c every five years following the initial performance test.
66. The permittee shall maintain a fabric filter on SN-11Q such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 2, Item 1]

67. For each emission unit equipped with an add-on air pollution control device, the permittee must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Item 6 of Table 2 to this subpart and record the results of each inspection. These records shall be maintained on site and made available to Department Personnel upon request. [§19.304 of Regulation #19 and 40 CFR §63.7113(f)]
68. For each COMS used to monitor an add-on air pollution control device, the permittee must meet the following requirements: [§19.304 of Regulation #19 and 40 CFR §63.7113(g)]
 1. Install the COMS at the outlet of the control device.
 2. Install, maintain, calibrate, and operate the COMS as required by 40 CFR Part 63, Subpart A, General Provisions and according to Performance Specification – 1 of Appendix B to Part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
69. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 5, Item 4(a)(ii)]
70. The permittee shall implement the written Operations, Maintenance, and Monitoring (OM&M) plan submitted with this permit application. Any subsequent changes to the plan must be submitted for review and approval. [§19.304 of Regulation #19 and 40 CFR §63.7100(d)]
71. Rotary Lime Kiln 1 (SN-11Q) must vent captured emissions through a closed system. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 2, Item 6a]
72. Rotary Lime Kiln 1 (SN-11Q) must operate each capture/collection system according to procedures in the OM&M plan. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 2, Item 6b]

SO₂ Conditions

73. 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. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
74. 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 #73 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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

NO_x

75. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [§19.501 et seq. and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
76. The permittee shall test source SN-11Q for oxides of nitrogen using EPA Reference Method 7E. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat the test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [§19.702 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]
77. The permittee shall demonstrate compliance with the NO_x emissions limit in Specific Condition #75 for source SN-11Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [§19.703 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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 #77e through #77h.
 - 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 (%O₂) 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 %O₂ kiln gas limit established by Specific Condition #77b. The permittee shall use the data from the continuous oxygen monitor (to predict the NO_x emission rate), along with lime production records, to demonstrate compliance with Specific Condition #75.
 - d. The permittee shall measure at least four, evenly spaced %O₂ 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 #77b.

- 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 #77b 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 O₂ 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 O₂ monitor shall be split and analyzed by a certified, third-party O₂ analyzer. The relative accuracy (RA) of the O₂ 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 O₂ 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 %O₂ rolling 30-day average values, and any deviations from the rolling 30-day O₂ 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 %O₂ values, and percent compliance shall be submitted to the Department in accordance with General Provision #7.

CO

- 78. The permittee shall test source SN-11Q for carbon monoxide using EPA Reference Method 10. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat the test every five years. The test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [§19.702 of Regulation #19 and 40 CFR Part 52, Subpart E]
- 79. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #41 for source SN-11Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [§19.703 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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 (%O₂) content (measured at the oxygen monitor) is not less than 0.60%.
 - b. The permittee shall use the oxygen monitor required by Specific Condition #77a to demonstrate compliance with the minimum %O₂ kiln gas limit established by

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

Specific Condition #79a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #77e through #77i.

- c. The permittee shall measure at least four, evenly spaced %O₂ 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 #79a.

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

80. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

81. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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

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
12Q(a&b)	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
13Q	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

83. The permittee shall conduct weekly observations of the opacity from source SN-12Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]
84. The permittee shall conduct daily observations of the opacity from source SN-13Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18, 40 CFR 64, and A.C.A. §8-4-203 as referenced by A.C.A. §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

85. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

86. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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

87. 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	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
15Q	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

88. The permittee shall conduct weekly observations of the opacity from source SN-14Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
89. The permittee shall conduct daily observations of the opacity from source SN-15Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18, 40 CFR 64, and A.C.A. §8-4-203 as referenced by A.C.A. §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

90. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

91. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §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

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

92. 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	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
17Q	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
18Q	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

93. The permittee shall conduct weekly observations of the opacity from sources SN-16Q, SN-17Q, and SN-18Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §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 CFR §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 CFR, Part 60.

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

Specific Conditions

94. 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 #98 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
19Q	PM ₁₀	0.2	0.2
20Qa/b	PM ₁₀	0.3	1.1
21Q	PM ₁₀	0.2	0.1

95. 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 #98 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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

96. 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	20%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E
20Qa/b	20%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E
21Q	20%	§19.304 and §19.503 of Regulation #19 40 CFR §60.252(c), and 40 CFR Part 52, Subpart E

97. The permittee shall conduct daily observations of the opacity from sources SN-19Q, SN-20Q, and SN-21Q, and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E]

98. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

99. The permittee shall maintain records of the coal/coke throughput at source SN-19Q in order to demonstrate compliance with Specific Condition #98 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
100. 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 CFR Part 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 #101 through #102. [40 CFR §60.250(a) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
101. 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). [§19.304 of Regulation #19 and 40 CFR §60.254(a)]
102. The owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11. [§19.304 of Regulation #19 and 40 CFR §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

103. 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 #107 and #109 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.1	0.1

104. 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 #107 and #109 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.1	0.1

105. 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%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E

106. The permittee shall conduct daily observations of the opacity from source SN-22Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E]
107. The permittee shall not exceed the following process rates set forth in the following table at the designated sources. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §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

108. 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 #107 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19 and 40 CFR Part 52, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
109. 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §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 CFR Part 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants, 40 CFR Part 63, Subpart AAAAA - National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

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

Pollutant	BACT Limit	BACT Determination
TSP and PM ₁₀	0.015 gr/dscf 15% Opacity	Baghouse-type Dust Collector
SO ₂	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 _x	3.5 lb NO _x per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation

Specific Conditions

110. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #114, #115, #117, #121, #131, #139, and #142, and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	5.8	22.9
PM	5.8	22.9
SO ₂	44.8	141.7
NO _x	100.2	399.3

111. 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 #114, #115, #117, and #145 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	3.4	14.2
CO	85.9	342.2

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 Conditions #115 and #117 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
HCl	8.00	31.88

113. 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. [§19.702 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

114. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

115. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

116. 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 #115 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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

117. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Lime per day
24Q	687.0

118. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Lime per year
24Q	228,125

119. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #117 and #118, 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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]
120. 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. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

PM/PM₁₀ & Opacity

121. Particulate matter emissions from source SN-24Q shall not exceed 0.015 grains per dry standard cubic foot of air. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]
122. 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 #110 and the grain loading factor set forth in Specific Condition #121. All tests shall take place in accordance with the plantwide conditions of this permit and shall occur by June 30 of the

testing year. The most recent test was performed April 11, 2008. [§19.702 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

NSPS Subpart HH

123. Source SN-24Q is subject to the provisions of 40 CFR Part 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants. A copy of Subpart HH has been included in Appendix B of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #124 through #128. [40 CFR §60.340(a) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
124. For the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to the affected rotary lime kiln. The measuring device used must be accurate to within + or - 5 percent of the mass rate over its operating range. The permittee shall continue to maintain and operate this device after the initial performance test has been completed. This testing was performed in April, 2004. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.343(d), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
125. 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
24Q	15%	§18.501 of Regulation #18, §19.304 and §19.901 et seq. of Regulation #19 40 CFR §60.342(a)(2), 40 CFR §63.7080 Table 2, Item 1, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

126. The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the rotary lime kiln. The span of this system shall be set at 40 percent opacity. These records shall be maintained on site and made available to Department Personnel upon request. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.343(a), 40 CFR §63.7113(g), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

127. 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. [§19.304 of Regulation #19 and 40 CFR §60.343(e)]

128. 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). [§19.304 and §19.702 of Regulation #19, 40 CFR Part 52, Subpart E, and 40 CFR §60.344(a)]

MACT AAAAA

129. Source SN-24Q is subject to the provisions of 40 CFR Part 63, Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #125, #130 through #139 and Plantwide Conditions #13 through #15. [40 CFR §63.7080 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
130. Source SN-24Q has been defined as a new lime kiln because construction or reconstruction began after December 20, 2002. [§19.304 of Regulation #19 and 40 CFR §63.7082(b)]
131. Particulate emissions from SN-24Q shall not exceed 0.10 lbs per ton of stone fed. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 1, Item 3]
132. The owner or operator shall determine compliance with the particulate matter standards in Specific Condition #131 as follows: [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 3, Item 1]
- a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:
- $$E = (Cs Qsd)/PK$$
- where:
- E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed
Cs = concentration of particulate matter, g/dscm (g/dscf)
Qsd = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P = stone feed rate, Mg/hr (ton/hr)
K = conversion factor, 1000 g/kg (453.6g/lb)
- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
- c. The monitoring device of Specific Condition #124 shall be used to determine the stone feed rate (P) for each run.
- d. The permittee shall conduct the performance test of #132 a, b, and c every five years following the initial performance test.

133. The permittee shall maintain a fabric filter on SN-24Q such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 2, Item 1]
134. For Rotary Lime Kiln 2 (SN-24Q), the permittee must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Item 6 of Table 2 to this subpart and record the results of each inspection. [§19.304 of Regulation #19 and 40 CFR §63.7113(f)]
135. For each COMS used to monitor an add-on air pollution control device, the permittee must meet the following requirements: [§19.304 of Regulation #19 and 40 CFR §63.7113(g)]
 1. Install the COMS at the outlet of the control device.
 2. Install, maintain, calibrate, and operate the COMS as required by 40 CFR Part 63, Subpart A, General Provisions and according to Performance Specification – 1 of Appendix B to Part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
136. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 5, Item 4(a)(ii)]
137. The permittee shall implement the written Operations, Maintenance, and Monitoring (OM&M) plan submitted with this permit application. Any subsequent changes to the plan must be submitted for review and approval. [§19.304 of Regulation #19 and 40 CFR §63.7100(d)]
138. Rotary Lime Kiln 2 (SN-24Q) must vent captured emissions through a closed system. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 2, Item 6a]
139. Rotary Lime Kiln 2 (SN-24Q) must operate each capture/collection system according to procedures in the OM&M plan. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 2, Item 6b]

SO₂

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. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

NO_x

142. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [§19.501 et seq. and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
143. The permittee shall test source SN-24Q for oxides of nitrogen using EPA Reference Method 7E. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat this test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [§19.702 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]
144. The permittee shall demonstrate compliance with the NO_x emissions limit in Specific Condition #142 for source SN-24Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [§19.703 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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 #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 (%O₂) 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 %O₂ 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_x emission rate), along with lime production records, to demonstrate compliance with Specific Condition #142.
 - d. The permittee shall measure at least four, evenly spaced %O₂ 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-24Q 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 O₂ 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 O₂ monitor shall be split and analyzed by a certified, third-party O₂ analyzer. The relative accuracy (RA) of the O₂ 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 O₂ 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 %O₂ rolling 30-day average values, and any deviations from the rolling 30-day O₂ 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 %O₂ values, and percent compliance shall be submitted to the Department in accordance with General Provision #7.

CO

- 145. The permittee shall test source SN-24Q for carbon monoxide using EPA Reference Method 10. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat this test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [§19.702 of Regulation #19 and 40 CFR Part 52, Subpart E]
- 146. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #111 for source SN-24Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [§19.703 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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 (%O₂) content (measured at the oxygen monitor) is not less than 0.60%.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

- b. The permittee shall use the oxygen monitor required by Specific Condition #144a to demonstrate compliance with the minimum %O₂ kiln gas limit established by Specific Condition #146a. 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 %O₂ 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 #146a.

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 ₁₀	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

147. 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 #150 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.3	1.2
PM	0.3	1.2

148. 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%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, and A.C.A.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

149. The permittee shall conduct daily observations of the opacity from source SN-25Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18, 40 CFR 64, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

150. 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. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 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 ₁₀	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

151. 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 #154 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.3	1.2
PM	0.30	1.20

152. 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%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

153. The permittee shall conduct weekly observations of the opacity from sources SN-26Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

154. 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. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 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 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR Part 63, Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

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

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

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 through physical limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19, and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.1	0.2
PM ₁₀	0.1	0.1

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
27Q	10%	§18.501 of Regulation #18, §19.304 and §19.901 et seq. of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

157. The permittee shall conduct weekly observations of the opacity from source SN-27Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]
158. Source SN-27Q is subject to 40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. A copy of Subpart OOO may be found in Appendix C of this permit. The requirements of this subpart include, but are not limited to, the items found in Specific Conditions #156 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
159. Source SN-27Q is subject to the provisions of 40 CFR Part 63, Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #156 and #160 and Plantwide Conditions #13 through #15. [40 CFR §63.7080 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
160. Source SN-27Q has been defined as a new processed stone handling (PSH) operation because construction or reconstruction began after December 20, 2002. [§19.304 of Regulation #19 and 40 CFR §63.7082(c)]

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

Source Description

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

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

Due to the additional coal being handled, the coal/coke preparation plant is subject to the requirements of 40 CFR Part 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 ₁₀	20% Opacity	Non-Point Source

Specific Conditions

161. 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. [§19.501 et seq. and §19.901 of Regulation #19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
28Q	PM	0.1	0.1
	PM ₁₀	0.1	0.1

162. 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%	§19.304, §19.503, and §19.901 of Regulation #19 40 CFR §60.252(c), and 40 CFR Part 52, Subpart E

163. The permittee shall conduct daily observations of the opacity from source SN-28Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E]
164. Source SN-28Q is subject to the applicable provisions of 40 CFR Part 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 #162, #165, and #166. [40 CFR §60.250(a) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
165. 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). [§19.304 of Regulation #19 and 40 CFR §60.254(a)]
166. The owner or operator shall determine compliance with the opacity standards using EPA Reference Method 9 and the procedures in §60.11. [§19.304 of Regulation #19 and 40 CFR §60.254(b)(2)]

Arkansas Lime Company
 Permit #: 0045-AOP-R6
 AFIN: 32-00014

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 CFR Part 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants, 40 CFR Part 63, Subpart AAAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, PSD, and CAM.

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

Pollutant	BACT Limit	BACT Determination
TSP and PM ₁₀	0.10 lb/ton of Stone Feed 15% Opacity	Baghouse-type Dust Collector type Dust Collector
SO ₂	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 _x	3.5 lb NO _x per Ton of Lime Produced on a 30-Day Rolling Average	Proper Kiln Design and Operation

Specific Conditions

167. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #171, #172, #174, #178, #189, #197, #200, and #204 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	5.8	22.9
PM	5.8	22.9
SO ₂	44.8	141.7
CO	85.9	342.2
NO _x	100.2	399.3

168. 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 #171, #172, #174, and #202 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
VOC	3.4	14.2

169. 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 #172 and #174 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
HCl	8.00	31.88

170. 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. [§19.702 and §19.901 et seq. of Regulation #19, and 40 CFR Part 52, Subpart E]

171. The permittee shall use only coal, coke, or pipeline quality natural gas to fire the rotary lime kiln. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

172. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

173. 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 #172 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. [§19.705 and §19.901 et seq. of Regulation #19, and 40 CFR Part 52, Subpart E]

174. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Lime per day
30Q	687.0

175. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Tons of Lime per Year
30Q	228,125

176. The permittee shall maintain daily records of the lime produced in order to demonstrate compliance with Specific Condition #174 and #175, 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. [§19.705 of Regulation #19 and 40 CFR Part 52, Subpart E]

177. 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. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

PM/PM₁₀ & Opacity Conditions

178. Particulate matter emissions from source SN-30Q shall not exceed 0.10 lb/ton of stone feed. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]
179. 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 #167 and the pound per ton limit set forth in Specific Condition #178. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. All tests shall take place in accordance with the plantwide conditions of this permit. [§19.702 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

NSPS HH

180. Source SN-30Q is subject to the provisions of 40 CFR Part 60, Subpart HH - Standards of Performance for Lime Manufacturing Plants. A copy of Subpart HH has been included in Appendix B of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #181 through #185. [40 CFR §60.340(a) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
181. 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
30Q	15%	§18.501 of Regulation #18, §19.304 and §19.901 et. seq. of Regulation #19 40 CFR §60.342(a)(2), 40 CFR §63.7080 Table 2, Item 1, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

182. 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. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.343(a), 40 CFR §63.7113(g), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

183. 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. [§19.304 and §19.703 of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR §60.343(d), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
184. 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. [§19.304 of Regulation #19 and 40 CFR §60.343(e)]
185. 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). [§19.304 and §19.702 of Regulation #19, 40 CFR Part 52, Subpart E, and 40 CFR §60.344(a)]

MACT AAAAA

186. Source SN-30Q is subject to the provisions of 40 CFR Part 63, Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #181, #187 through #196 and Plantwide Conditions #13 through #15. [40 CFR §63.7080 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
187. Source SN-30Q has been defined as a new lime kiln because construction or reconstruction began after December 20, 2002. [§19.304 of Regulation #19 and 40 CFR §63.7082(b)]
188. Particulate emissions from SN-30Q shall not exceed 0.10 lbs per ton of stone fed. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 1, Item 3]
189. The owner or operator shall determine compliance with the particulate matter standards in Specific Condition #188 as follows: [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 3, Item 1]
 - a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (Cs Qsd)/PK$$

where:

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

- b. Method 5 shall be used at negative pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (Cs) and the volumetric flow rate of the effluent gas (Qsd). The sampling time and the sample volume for each run shall be at least 60 minutes and 0.9 dscm (31.8 dscf).
 - c. The monitoring device of Specific Condition #183 shall be used to determine the stone feed rate (P) for each run.
 - d. The permittee shall conduct the performance test of #189 a, b, and c every five years following the initial performance test.
190. The permittee shall maintain a fabric filter on SN-30Q such that the opacity requirement of 15% is not exceeded on a 6-minute block average. [§19.304 of Regulation #19 and 40 CFR §63.7080 Table 2, Item 1]
191. For Rotary Lime Kiln 3 (SN-30Q), the permittee must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Item 6 of Table 2 to this subpart and record the results of each inspection. [§19.304 of Regulation #19 and 40 CFR §63.7113(f)]
192. For each COMS used to monitor an add-on air pollution control device, the permittee must meet the following requirements: [§19.304 of Regulation #19 and 40 CFR §63.7113(g)]
1. Install the COMS at the outlet of the control device.
 2. Install, maintain, calibrate, and operate the COMS as required by 40 CFR Part 63, Subpart A, General Provisions and according to Performance Specification – 1 of Appendix B to Part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.
193. The permittee shall collect COMS data at a frequency of at least once every 15 seconds. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 5, Item 4(a)(ii)]

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

194. The permittee shall implement the written Operations, Maintenance, and Monitoring (OM&M) plan submitted with this permit application. Any subsequent changes to the plan must be submitted for review and approval. [§19.304 of Regulation #19 and 40 CFR §63.7100(d)]
195. Rotary Lime Kiln 3 (SN-30Q) must vent captured emissions through a closed system. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 2, Item 6a]
196. Rotary Lime Kiln 3 (SN-30Q) must operate each capture/collection system according to procedures in the OM&M plan. [§19.304 of Regulation #19 and 40 CFR §63.7180 Table 2, Item 6b]

SO₂

197. 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. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
198. 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 #197 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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

NO_x

199. Emissions of oxides of nitrogen shall not exceed 3.5 lbs per ton of lime produced on a 30-day rolling average. [§19.501 et seq. and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
200. The permittee shall test source SN-30Q for oxides of nitrogen using EPA Reference Method 7E. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat this test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [§19.702 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]
201. The permittee shall demonstrate compliance with the NO_x emissions limit in Specific Condition #199 for source SN-30Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [§19.703 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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 #201e through #201h.
- 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 (%O₂) 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 %O₂ kiln gas limit established by the testing required by Specific Condition #200. The permittee shall use the data from the continuous oxygen monitor (to predict the NO_x emission rate), along with lime production records, to demonstrate compliance with Specific Condition #199.
- d. The permittee shall measure at least four, evenly spaced %O₂ 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 #201b
- 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 #201b 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 O₂ 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 O₂ monitor shall be split and analyzed by a certified, third-party O₂ analyzer. The relative accuracy (RA) of the O₂ 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 O₂ 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 %O₂ rolling 30-day average values, and any deviations from the rolling 30-day O₂ 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 %O₂ values, and percent compliance shall be submitted to the Department in accordance with General Provision #7.

VOC

202. 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. [§19.702 of Regulation #19 and 40 CFR Part 52, Subpart E]

CO

203. Emissions of CO shall not exceed 3.0 lbs per ton of lime produced on a 30-day rolling average. [§19.501 et seq. and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
204. The permittee shall test source SN-30Q for carbon monoxide using EPA Reference Method 10. The permittee shall notify the Department at least 30 days in advance of the tests taking place and shall repeat the test every five years. This test shall occur by June 30 of the testing year. The most recent test was performed April 11, 2008. [§19.702 of Regulation #19 and 40 CFR Part 52, Subpart E]
205. The permittee shall demonstrate compliance with the CO emissions limits in Specific Condition #203 for source SN-30Q by continuously monitoring the oxygen content of the kiln gases according to the following conditions: [§19.703 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §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 (%O₂) content (measured at the oxygen monitor) is not less than 0.60%.
 - b. The permittee shall use the oxygen monitor required by Specific Condition #201a to demonstrate compliance with the minimum %O₂ kiln gas limit established by Specific Condition #205a. The permittee shall operate the oxygen monitor in accordance with Specific Conditions #201e through #201i.
 - c. The permittee shall measure at least four, evenly spaced %O₂ 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 #205a.

SN-31Q
 Transfer Points to Extended RKFS Pile

Source Description

Source SN-31Q is subject to 40 CFR Part 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 ₁₀	20% Opacity	Water Sprays (upstream)

Specific Conditions

206. 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 #209 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.7	1.9
PM ₁₀	0.4	0.9

207. 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%	§19.304, §19.503, and §19.901 et seq. of Regulation #19 40 CFR §60.252(c), and 40 CFR Part 52, Subpart E

208. The permittee shall conduct daily observations of the opacity from sources SN-31Q, and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E]

209. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 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
31Q	1,100,000

210. The permittee shall maintain records of the limestone throughput at source SN-31Q in order to demonstrate compliance with Specific Condition #209 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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

211. Source SN-31Q is subject to 40 CFR Part 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 #207 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §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 ₁₀	0.010 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

212. 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 #215 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.3	1.2
PM ₁₀	0.3	1.2

213. 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%	§18.501 of Regulation #18, §19.304 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

214. The permittee shall conduct daily observations of the opacity from source SN-32Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18, 40 CFR 64, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

215. 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. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Arkansas Lime Company
 Permit #: 0045-AOP-R6
 AFIN: 32-00014

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 ₁₀	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

216. 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 #219 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.20	0.60
PM ₁₀	0.2	0.6

217. 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%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19 A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

218. The permittee shall conduct weekly observations of the opacity from sources SN-33Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

219. 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. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

SN-34Q
 #3 Coal/Coke Transfer Point

Source Description

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

Pollutant	BACT Limit	BACT Determination
TSP and PM ₁₀	20% Opacity	Non-Point Source

Specific Conditions

220. 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 #172 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.1	0.1
PM ₁₀	0.1	0.1

221. 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%	§19.304, §19.503, and §19.901 et seq. of Regulation #19 40 CFR §60.252(c), and 40 CFR Part 52, Subpart E

222. The permittee shall conduct daily observations of the opacity from sources SN-34Q, and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E]

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

Source Description

Source SN-35 is subject to 40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR Part 63, Subpart AAAAA - National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants, and PSD.

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

Pollutant	BACT Limit	BACT Determination
TSP and PM ₁₀	10% Opacity	Water Sprays (upstream)

Specific Conditions

223. 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 #226 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM	0.1	0.2
PM ₁₀	0.1	0.1

224. 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%	§18.501 of Regulation #18, §19.304 and §19.901 et seq. of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

225. The permittee shall conduct weekly observations of the opacity from source SN-35Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

226. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§19.705 and §19.901 et seq. of Regulation #19, 40 CFR Part 52, Subpart E, 40 CFR 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
35Q	450,000

227. The permittee shall maintain records of the limestone throughput at source SN-35Q in order to demonstrate compliance with Specific Condition #226 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. [§19.705 and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

228. Source SN-35Q is subject to 40 CFR 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 Condition #224 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

229. Source SN-35Q is subject to the provisions of 40 CFR Part 63, Subpart AAAAA – National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. A copy of Subpart AAAAA has been included in Appendix D of this permit. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #224 and #230 and Plantwide Conditions #13 through #15. [40 CFR §63.7080 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

230. Source SN-35Q has been defined as a new processed stone handling (PSH) operation because construction or reconstruction began after December 20, 2002. [§19.304 of Regulation #19 and 40 CFR §63.7082(c)]

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

Source Description

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

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

Specific Conditions

231. 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 #234 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

232. 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	5%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
37Q	5%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

233. The permittee shall conduct weekly observations of the opacity from sources SN-36Q and SN-37Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

234. 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. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 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 ₁₀	0.015 gr/dscf 5% Opacity	Baghouse-type Dust Collector

Specific Conditions

235. 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 #238 and equipment limitations. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

236. 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	5%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
39Q	5%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

237. The permittee shall conduct weekly observations of the opacity from sources SN-38Q and SN-39Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

238. 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. [§19.501 et seq. and §19.901 et seq. of Regulation #19 and 40 CFR Part 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

239. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	1.0	1.4

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

Pollutant	lb/hr	tpy
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

241. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	1.0	1.4

242. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	2.0	3.0

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

SN-43Q
Emergency Generator
Diesel Fuel, 350hp

Source Description

The emergency generator engine was manufactured before the year 2000. Therefore, the source is not subject to 40 CFR 60 Subpart III.

This source has been removed from insignificant activity status because it is subject to 40 CFR Part 63 Subpart ZZZZ.

Specific Conditions

243. 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 Condition #246 through #257 and by burning on diesel fuel. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.8	0.6
SO ₂	0.8	0.6
VOC	0.9	0.7
CO	2.4	1.8
NO _x	10.9	8.2

244. 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 Condition #31 and by burning on diesel fuel. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.8	0.6

245. 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%	§18.501 of Regulation #18

246. The permittee shall conduct daily 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. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
247. The permittee shall not operate the emergency generator more than 1,500 hours in any consecutive twelve month period. The generator shall have a non-resettable hour meter in order to verify compliance with this limit. The permittee shall maintain monthly and 12-month total records in order to demonstrate compliance with the limit 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. [Regulation 19, §19.501 et seq. and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

NESHAP ZZZZ

248. Source SN-43Q is subject to the provisions of 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Stationary Reciprocating Internal Combustion Engines and must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. The applicable provisions of this subpart include, but are not limited to, the items found in Specific Conditions #249 through #259. [40 CFR §63.6585, §63.6595(a) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
249. The generator shall have a non-resettable hour meter. [Regulation 19, §19.501 et seq. and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, 40 CFR Part 63, Subpart ZZZZ §63.6625]
250. The permittee may operate the emergency generator for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. 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 RICE beyond 100 hours per year. [Regulation 19, §19.501 et seq. and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, 40 CFR Part 63, Subpart ZZZZ §63.6640(f)]

251. The permittee may operate SN-43Q emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited as long as the power provided by the financial arrangement is limited to emergency power. [Regulation 19, §19.501 et seq. and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, 40 CFR Part 63, Subpart ZZZZ §63.6640(f)]
252. The permittee shall maintain records to demonstrate compliance with Specific Condition #246, #250, and #251. These records must include how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. The hours on the non-resettable hour meter shall be referenced for all hour based record keeping. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. A twelve month rolling total 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. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
253. The permittee shall maintain a copy of each notification and report submitted to comply with subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv). [Regulation 19, §19.501 et seq. and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, 40 CFR Part 63, Subpart ZZZZ §63.6655]

254. Shall operate and maintain SN-43Q, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Regulation 19, §19.501 et seq. and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, 40 CFR Part 63, Subpart ZZZZ §63.6605]
255. The permittee shall operate and maintain SN-43Q according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ §63.6625(e)]
256. The permittee shall keep records of the maintenance conducted on SN-43Q in order to demonstrate compliance with Specific Condition #254 and #0 . The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. These records shall be maintained on site and made available to Department personnel upon request. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ §63.6605]
257. The permittee shall perform the following maintenance on the emergency generator, SN-43Q. Any deviations from these operating limitations shall be submitted in accordance with General Provision 7. If there were no instances of incompliance, the permittee shall submit a statement that there were no deviations from the operating limitations during the reporting period including the information in §63.6650 (d). The permittee shall report the information in §63.6650(c)(4) if there was a malfunction during the reporting period. Records of maintenance tasks shall be maintained on site and made available to Department personnel upon request. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ §63.6602]
 - a. The permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first
 - b. The permittee shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first
 - c. The permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
 - d. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

258. The permittee shall maintain records in a form suitable and readily available for expeditious review. These records shall be maintained for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ §63.6660]

259. The facility has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Specific Condition #257. The oil analysis must be performed at the same frequency specified for changing the oil Specific Condition #257. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil before continuing to use the engine. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart ZZZZ §63.6625(i)]

SN-44Q
 Water Pump Engines

Source Description

The water pump engines are classified as non-road engines and are therefore not subject to 40 CFR Part 63 Subpart ZZZZ.

Specific Conditions

260. 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 #264 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	1.8	7.8
SO ₂	1.7	7.2
VOC	2.0	8.7
CO	5.4	23.5
NO _x	8.4	36.8

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 Condition #264 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	1.8	7.8

262. 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
44Q	20%	§18.501 of Regulation #18, §19.901 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

263. The permittee shall conduct weekly observations of the opacity from sources SN-44Q 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. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

264. The estimated total lb/hr emissions for all water pump engines combined shall not exceed the values shown in Specific Conditions #260 and #261 for each pollutant. The permittee shall keep records verifying the estimated lb/hr limits are not exceeded. The records shall include a description of each engine, the emission factors used, the estimated hourly emissions for each individual engine and all engines combined, and the installation date of each engine. The records shall be updated each time there is a change to the water pump engines on site and shall be made available to Department personnel upon request. [§19.501 et seq. and §19.901 et seq. of Regulation #19]

SN-45Q
 Portable Generator Engine

This portable 415 BHP diesel-fired generator is used to power the portable trommel screen operations (SN-46Q).

265. 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 #269 and operating at or below maximum capacity of the equipment. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

SN	Description ^b	Pollutant	lb/hr	tpy
SN-45Q	415 BHP diesel-fired portable generator (Serial No. 2146055)	PM ₁₀	0.2	0.6
		SO ₂	0.1	0.1
		VOC	2.8	12.0 ^a
		CO	2.4	10.5
		NO _x	2.8	12.0 ^a

- a. Combined VOC and NO_x limits per tier 3 engine standards from 40 CFR 89.112(a).
 b. The serial number represents what was proposed at the time of permit application submission.

266. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by operating at or below maximum capacity of the equipment. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description ^a	Pollutant	lb/hr	tpy
SN-45Q	415 BHP diesel-fired portable generator (Serial No. 2146055)	PM Total HAPs	0.2 1.12E-02	0.6 4.92E-02

- a. The serial number represents what was proposed at the time of permit application submission.

267. 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
SN-45Q	20%	§18.501 of Regulation #18, §19.501 et seq. of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

268. The permittee shall conduct weekly observations of the opacity from sources SN-45Q 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

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

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. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

269. The permittee shall use only ultra-low-sulfur diesel to fuel the portable generator (SN-45Q). [§19.705 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
270. The permittee may replace any currently permitted engine on a temporary or permanent basis with a replacement engine, which will have the same or lower permitted emission rates on a pound per hour and ton per year basis, have the same or lower horsepower, and do not violate any regulations promulgated by the EPA. The permittee shall notify ADEQ of the replacement within 30 days of startup. This does not apply to modifications which must go through the PSD applicability procedures as outlined in 40 CFR 52.21. Notwithstanding the above, as provided by Regulation 26, in the event an emergency occurs, the permittee shall have an affirmative defense of emergency to an action brought for non-compliance with technology-based emission limitations if the conditions of Regulation 26, Section 26.707 are met. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

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 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.

271. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

272. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
46Q	PM	1.4	6.1

273. 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%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

274. The permittee shall conduct weekly observations of the opacity from sources associated with SN-46Q and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]
275. 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and/or A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
276. Source SN-46Q is subject to 40 CFR 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 items found in Specific Condition #273 and Specific Conditions #277 through #288. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
277. Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of 40 CFR Part 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 CFR Part 60, Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. [§19.304 of Regulation #19 and 40 CFR §60.672(b)]

278. 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). [§19.304 of Regulation #19 and 40 CFR §60.674(b)]
279. 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. [§19.304 of Regulation #19 and 40 CFR §60.674(b)(2)]
280. Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in §60.11 shall be used to determine opacity. [§19.304 of Regulation #19 and 40 CFR §60.675(b)(2)]
281. 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 CFR Part 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 CFR Part 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.

[§19.304 of Regulation #19 and 40 CFR §60.675(c)(1)]

282. When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of 40 CFR Part 60, Subpart OOO, 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 40 CFR Part 60, Subpart OOO must be based on the average of the five 6-minute averages. [§19.304 of Regulation #19 and 40 CFR §60.675(c)(3)]

283. 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. [§19.304 of Regulation #19 and 40 CFR §60.675(g)]
284. 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. [§19.304 of Regulation #19 and 40 CFR §60.676(b)(1)]
285. 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 CFR Part 60, Subpart OOO, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). [§19.304 of Regulation #19 and 40 CFR §60.676(f)]
286. 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 CFR Part 60, Subpart OOO. [§19.304 of Regulation #19 and 40 CFR §60.676(h)]
287. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. [§19.304 of Regulation #19 and 40 CFR §60.676(i)]
288. Notifications and reports required under 40 CFR Part 60, Subpart OOO and under subpart A of 40 CFR Part 60 to demonstrate compliance with 40 CFR Part 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). [§19.304 of Regulation #19 and 40 CFR §60.676(k)]

Table 1 to Subpart OOO of 40 CFR 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 §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).

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

Table 3 to Subpart OOO of 40 CFR 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 demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	An initial performance test according to §60.11 of 40 CFR Part 60 and §60.675 of 40 CFR Part 60, Subpart OOO; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b);

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 CFR Part 60, Subpart OOO - Standards of Performance for Non-Metallic Mineral Processing Plants. Water sprays are the only controls associated with this source.

Specific Conditions

289. 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 #293 and #295 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.3	0.7

290. 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 #293 and #295 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.6	1.5

291. 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%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

292. The permittee shall conduct weekly observations of the opacity from source SN-01P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

293. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 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

294. The permittee shall maintain records of the amount of limestone processed at SN-01P in order to demonstrate compliance with Specific Condition #294 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

295. 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

296. Source SN-01P is subject to 40 CFR Part 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 #291 and Plantwide Conditions #7 through #12.

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

Source Description

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

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

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

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

Specific Conditions

297. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #301 and #304 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

Arkansas Lime Company
 Permit #: 0045-AOP-R6
 AFIN: 32-00014

298. 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 #301 and #304 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
12P	PM	1.9	8.1
13P	PM	0.3	1.0
14P	PM	0.4	1.7
29P	PM	0.2	0.8

299. 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	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
13P	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
14P	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
29P	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

300. The permittee shall conduct weekly observations of the opacity from sources SN-13P, SN-14P, and SN29P 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. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

301. The permittee shall conduct daily observations of the opacity from source SN-12P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18, 40 CFR 64, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
302. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 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

303. The permittee shall maintain records of the amount of lime processed at SN-14P in order to demonstrate compliance with Specific Condition #302 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
304. Pipeline quality natural gas shall be the only fuel used to fire the heater located at source SN-12P. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §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 CFR Part 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

305. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition #309 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
18P	PM ₁₀	2.6	11.4
	SO ₂	0.1	0.1
	VOC	0.1	0.2
	CO	0.6	2.3
	NO _x	0.7	2.8
19P	PM ₁₀	1.8	7.7
	SO ₂	0.1	0.1
	VOC	0.1	0.2
	CO	0.5	2.0
	NO _x	0.6	2.3

306. 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 #309 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source	Pollutant	lb/hr	tpy
18P	PM	2.6	11.4
19P	PM	1.8	7.7

307. 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%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E
19P	5%	§18.501 of Regulation #18, 40 CFR §60.672(c), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

308. The permittee shall conduct daily observations of the opacity from sources SN-18P and SN-19P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18, 40 CFR 64, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
309. The permittee shall use only pipeline quality natural gas to fire sources SN-18P and SN-19P. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
310. Source SN-19P is subject to 40 CFR 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 Condition #307 and Plantwide Conditions #7 through #12. [40 CFR §60.670 and A.C.A. §8-4-203 as referenced by §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

311. 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 #315 and #317 and equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Source	Pollutant	lb/hr	tpy
20P	PM ₁₀	0.4	1.5
24P	PM ₁₀	0.2	0.6

312. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #315 and #317 and equipment limitations. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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

313. 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%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E
24P	5%	§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

314. The permittee shall conduct daily observations of the opacity from sources SN-20P and SN-24P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
315. The permittee shall not exceed the process rates set forth in the following table at the designated sources. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

316. 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 #315 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. [§18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
317. The permittee shall maintain flexible strips (canvas or plastic) at the building(s) partially enclosing source SN-20P. [§19.705 of Regulation #19, 40 CFR 70.6, and A.C.A. §8-4-203 as referenced by §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

318. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	1.5	3.1

319. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
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 CFR Part 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

320. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

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

321. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §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

322. 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%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(f), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
33P	10%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E
34P	10%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(b), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

323. The permittee shall conduct weekly observations of the opacity from sources SN-30P, SN-33P, and SN-34P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]
324. Sources SN-30P, SN-33P, and SN-34P are subject to 40 CFR Part 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 #322 and Plantwide Conditions #7 through #12.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

SN-35P
Quicklime Fines Rail Unloading Pit

Source Description

Emissions are generated by the unloading of railcars containing lime.

Specific Conditions

325. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.9	3.8

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

Pollutant	lb/hr	tpy
PM	2.6	11.4

327. 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%	§19.503 of Regulation #19 and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

328. The permittee shall conduct daily observations of the opacity from source SN-35P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §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 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.

Specific Conditions

329. 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. [§19.501 et seq. of Regulation #19 and 40 CFR Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.2	0.8

330. 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. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	lb/hr	tpy
PM	0.2	0.8

331. 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%	§18.501 of Regulation #18, §19.304 of Regulation #19 40 CFR §60.672(a)(2), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

332. The permittee shall conduct weekly observations of the opacity from source SN-36P and keep a record of these observations. If the permittee determines that the opacity is greater than the permitted limits, the permittee must immediately take action to identify and correct the cause of the exceedance. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions exceedance and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]]

333. Source SN-36P is subject to 40 CFR Part 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 #331 and Plantwide Conditions #7 through #12.

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Arkansas Lime Company will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 19, §19.410(B) and 40 CFR Part 52, Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §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.

[Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §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. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

NSPS Subpart OOO

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

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

MACT AAAAA

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

Title VI Provisions

16. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]
 - a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

17. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC like appliance” as defined at §82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

18. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

19. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

Arkansas Lime Company
 Permit #: 0045-AOP-R6
 AFIN: 32-00014

The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.

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

Permit Shield

21. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in the following table of this condition. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated February 25, 2010.

Applicable Regulations

Source No.	Regulation	Description
01Q, 02Q, 03Q, 07Q, 09Q, 10Q, 27Q, 31Q, 35Q, 36Q, 01P, 19P, 30P, 33P, 34P, and 36P	40 CFR 60, Subpart OOO	New Source Performance Standards for Non Metallic Mineral Processing Plants
11Q, 24Q, and 30Q	40 CFR 60, Subpart HH	New Source Performance Standards for Lime Manufacturing Plants
21Q, 28Q, and Coal systems	40 CFR 60, Subpart Y	New Source Performance Standards for Coal Preparation Plants
Transfer Point D06 (Kiln Feed Belt into Stone Bin) of SN-07Q, 11Q, 24Q, 27Q, 30Q, and 35Q	40 CFR 63, Subpart AAAAA	National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Arkansas Lime Company
 Permit #: 0045-AOP-R6
 AFIN: 32-00014

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, and 19P	40 CFR 64	Compliance Assurance Monitoring

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

Inapplicable Regulations

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

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated February 25, 2010.

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-2
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

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 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 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26, §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 CFR 70.6(a)(1)(ii) and Regulation 26, §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 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §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 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If 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 within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below:

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

[40 C.F.R. 70.6(a)(3)(iii)(A) and Regulation 26, §26.701(C)(3)(a)]

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
 - a. For all upset conditions (as defined in Regulation 19, § 19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - i. The facility name and location;
 - ii. The process unit or emission source deviating from the permit limit;
 - iii. The permit limit, including the identification of pollutants, from which deviation occurs;
 - iv. The date and time the deviation started;
 - v. The duration of the deviation;
 - vi. The average emissions during the deviation;
 - vii. The probable cause of such deviations;
 - viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
 - ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Regulation 19, §19.601 and §19.602, Regulation 26, §26.701(C)(3)(b), and 40 CFR 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §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 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]
12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26, §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 CFR 70.6(a)(8) and Regulation 26, §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 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]
19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]
20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §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 within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26, §26.703(E)(3)]
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.

22. Nothing in this permit will alter or affect the following: [Regulation 26, §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. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
- a. Such an extension does not violate a federal requirement;
 - b. The permittee demonstrates the need for the extension; and
 - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Regulation 18, §18.314(A), Regulation 19, §19.416(A), Regulation 26, §26.1013(A), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

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

[Regulation 18, §18.314(B), Regulation 19, §19.416(B), Regulation 26, §26.1013(B), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

Arkansas Lime Company
Permit #: 0045-AOP-R6
AFIN: 32-00014

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

[Regulation 18, §18.314(C), Regulation 19, §19.416(C), Regulation 26, §26.1013(C), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

Appendix A

40 CFR 60 Subpart Y, *New Source Performance Standards for Coal Preparation Plants*

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

Contents

[§60.250 Applicability and designation of affected facility.](#)

[§60.251 Definitions.](#)

[§60.252 Standards for thermal dryers.](#)

[§60.253 Standards for pneumatic coal-cleaning equipment.](#)

[§60.254 Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles.](#)

[§60.255 Performance tests and other compliance requirements.](#)

[§60.256 Continuous monitoring requirements.](#)

[§60.257 Test methods and procedures.](#)

[§60.258 Reporting and recordkeeping.](#)

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 feet (gr/dscf)); and

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

(b) Except as provided in paragraph (c) of this section, on and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after April 28, 2008, subject to the provisions of this subpart must meet the applicable standards for PM and opacity, as specified in paragraph (b)(1) of this section. In addition, and except as provided in paragraph (c) of this section, on and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after May 29, 2009, subject to the provisions of this subpart must also meet the applicable standards for sulfur dioxide (SO₂), and combined nitrogen oxides (NO_x) and carbon monoxide (CO) as specified in paragraphs (b)(2) and (b)(3) of this section.

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

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

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

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

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

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

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

(2) Except as provided in paragraph (b)(2)(iii) of this section, for each thermal dryer constructed, reconstructed, or modified after May 27, 2009, the owner or operator must meet the requirements for SO₂ 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 SO₂ 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 SO₂ in excess of 520 ng/J (1.20 lb/MMBtu) heat input or contain SO₂ 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 SO₂ 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 SO₂ 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_x 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_x 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_x 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_x 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_x 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, SO₂, or combined NO_x 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 ± 1.7 °C (± 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 ± 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 ± 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 ± 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 ± 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 ± 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 ± 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 SO₂ concentration. A minimum of three valid test runs are needed to comprise an SO₂ performance test.

(7) Method 7 or 7E of appendix A-4 of this part shall be used to determine the NO_x concentration. A minimum of three valid test runs are needed to comprise an NO_x 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_x 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.

Appendix B

40 CFR 60 Subpart HH, *New Source Performance Standards for Lime Manufacturing Plants*

Subpart HH—Standards of Performance for Lime Manufacturing Plants

Contents

- [§60.340 Applicability and designation of affected facility.](#)
 - [§60.341 Definitions.](#)
 - [§60.342 Standard for particulate matter.](#)
 - [§60.343 Monitoring of emissions and operations.](#)
 - [§60.344 Test methods and procedures.](#)
-

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 ± 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 ± 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 ± 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]

Appendix C

40 CFR 60 Subpart OOO, *New Source Performance Standards for Non Metallic Mineral Processing Plants*

Subpart 000—Standards of Performance for Nonmetallic Mineral Processing Plants

Contents

[§60.670 Applicability and designation of affected facility.](#)

[§60.671 Definitions.](#)

[§60.672 Standard for particulate matter \(PM\).](#)

[§60.673 Reconstruction.](#)

[§60.674 Monitoring of operations.](#)

[§60.675 Test methods and procedures.](#)

[§60.676 Reporting and recordkeeping.](#)

[Table 1 to Subpart 000 of Part 60—Exceptions to Applicability of Subpart A to Subpart 000](#)

[Table 2 to Subpart 000 of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems](#)

[Table 3 to Subpart 000 of Part 60—Fugitive Emission Limits](#)

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) Fluorospar.

(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 ± 250 pascals ± 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 ± 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 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).

(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 H₂O (0.05 in. H₂O)] 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), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in §60.672(b) and the emission test requirements of §60.11.

(h) The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

Table 1 to Subpart 000 of Part 60—Exceptions to Applicability of Subpart A to Subpart 000

Subpart A reference	Applies to subpart 000	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	Yes	Except in (a)(1) notification of the date construction or

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

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 §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) ^a	7 percent for dry control devices ^b	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) ^a	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c),

			(d), or (e) and §60.676(b).
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^aExceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

^bThe 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

			<p>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.</p>
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Appendix D

40 CFR Part 60 Subpart IIII, *Standards of Performance for Stationary Compression Ignition
Internal Combustion Engines*

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

Contents

[WHAT THIS SUBPART COVERS](#)

[§60.4200 Am I subject to this subpart?](#)

[EMISSION STANDARDS FOR MANUFACTURERS](#)

[§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?](#)

[§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?](#)

[§60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?](#)

[EMISSION STANDARDS FOR OWNERS AND OPERATORS](#)

[§60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?](#)

[§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?](#)

[§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?](#)

[FUEL REQUIREMENTS FOR OWNERS AND OPERATORS](#)

[§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?](#)

[OTHER REQUIREMENTS FOR OWNERS AND OPERATORS](#)

[§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?](#)

[§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?](#)

[COMPLIANCE REQUIREMENTS](#)

[§60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?](#)

[§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?](#)

[TESTING REQUIREMENTS FOR OWNERS AND OPERATORS](#)

[§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?](#)

[§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal](#)

[combustion engine with a displacement of greater than or equal to 30 liters per cylinder?](#)

NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

[§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?](#)

SPECIAL REQUIREMENTS

[§60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?](#)

[§60.4216 What requirements must I meet for engines used in Alaska?](#)

[§60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?](#)

GENERAL PROVISIONS

[§60.4218 What parts of the General Provisions apply to me?](#)

[§60.4219 What definitions apply to this subpart?](#)

[Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW \(3,000 HP\) and With a Displacement of <10 Liters per Cylinder](#)

[Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW \(50 HP\) With a Displacement of <10 Liters per Cylinder](#)

[Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines](#)

[Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines](#)

[Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines](#)

[Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines](#)

[Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of \$\geq\$ 30 Liters per Cylinder](#)

[Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII](#)

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 (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

EMISSION STANDARDS FOR MANUFACTURERS

§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40

CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); 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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000

HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; 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]

§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 emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x 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_x 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_x 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.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x 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_x 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]

§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) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

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 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO_x 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_x and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

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, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical

requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

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

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

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

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (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_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

5.9 = 20.9 percent O_2 - 15 percent O_2 , the defined O_2 correction value, percent.

$\% \text{O}_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

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

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2 , percent/100.

F_e = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂-15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NO_x and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NO_x or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

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

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

1.912×10^{-3} = Conversion constant for ppm NO_x 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_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

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 or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). 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.

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013]

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_x 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_x 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 areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(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 areas of Alaska not accessible by the FAHS.

(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 areas of Alaska not accessible by the FAHS 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]

§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 parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

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.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration

cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013]

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	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_x + 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)¹
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

¹Manufacturers 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_x	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+ ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	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+ ²	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+ ³	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+ ³	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)

¹For 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.

²For 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.

³In 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 IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:

Each	Complying with the 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 _x emissions by 90 percent or more;	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in

				diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO _x concentration.
		iv. Measure NO _x at the inlet and outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO _x in the	i. Select the sampling port location and		(a) For NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in

	stationary CI internal combustion engine exhaust.	number/location of traverse points at the exhaust of the stationary internal combustion engine;		diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurement for NO _x concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO _x concentration.
		iv. Measure NO _x at the exhaust of the stationary internal	(3) Method 7E of 40 CFR part 60, Appendix A-	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this

		combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ 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 40 CFR part 60, appendix A-3	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM

		the sampling port location;		concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A-3.	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[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 §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.

§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart III.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥ 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	

Appendix E

40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Compression Ignition Internal Combustion Engines*

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Contents

[WHAT THIS SUBPART COVERS](#)

[§63.6580 What is the purpose of subpart ZZZZ?](#)

[§63.6585 Am I subject to this subpart?](#)

[§63.6590 What parts of my plant does this subpart cover?](#)

[§63.6595 When do I have to comply with this subpart?](#)

[EMISSION AND OPERATING LIMITATIONS](#)

[§63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?](#)

[§63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?](#)

[§63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?](#)

[§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?](#)

[§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?](#)

[GENERAL COMPLIANCE REQUIREMENTS](#)

[§63.6605 What are my general requirements for complying with this subpart?](#)

[TESTING AND INITIAL COMPLIANCE REQUIREMENTS](#)

[§63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?](#)

[§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?](#)

[§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?](#)

[§63.6615 When must I conduct subsequent performance tests?](#)

[§63.6620 What performance tests and other procedures must I use?](#)

[§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?](#)

[§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?](#)

[CONTINUOUS COMPLIANCE REQUIREMENTS](#)

[§63.6635 How do I monitor and collect data to demonstrate continuous compliance?](#)

[§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other](#)

[requirements?](#)

NOTIFICATIONS, REPORTS, AND RECORDS

[§63.6645 What notifications must I submit and when?](#)

[§63.6650 What reports must I submit and when?](#)

[§63.6655 What records must I keep?](#)

[§63.6660 In what form and how long must I keep my records?](#)

OTHER REQUIREMENTS AND INFORMATION

[§63.6665 What parts of the General Provisions apply to me?](#)

[§63.6670 Who implements and enforces this subpart?](#)

[§63.6675 What definitions apply to this subpart?](#)

[Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions](#)

[Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions](#)

[Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions](#)

[Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP](#)

[Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions](#)

[Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions](#)

[Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests](#)

[Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests](#)

[Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements](#)

[Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements](#)

[Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports](#)

[Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.](#)

[Appendix A—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines](#)

SOURCE: 69 FR 33506, June 15, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 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 as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

§63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

§63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

EMISSION AND OPERATING LIMITATIONS

§63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[78 FR 6701, Jan. 30, 2013]

§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE 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 RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the

numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

GENERAL COMPLIANCE REQUIREMENTS

§63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

TESTING AND INITIAL COMPLIANCE REQUIREMENTS

§63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (e)(2)(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:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu)

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂—15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O₂

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO₂} = CO₂ correction factor, percent.

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) 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;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to

approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

CONTINUOUS COMPLIANCE REQUIREMENTS

§63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE 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 (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE 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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE 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 §63.14), 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 RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP 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. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP 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 paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per 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) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) 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.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

NOTIFICATIONS, REPORTS, AND RECORDS

§63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(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). 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 §63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

§63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

OTHER REQUIREMENTS AND INFORMATION

§63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

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.

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

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 fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (e.g. biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE 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 RICE used to pump water in the case of fire or flood, etc.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §63.6640(f)(2)(ii) or (iii) and §63.6640(f)(4)(i) or (ii).

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO₂.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO₂, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C₃H₈.

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline

segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_x (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-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 reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart P of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013]

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂	

¹ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .

<p>1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O₂ and using NSCR;</p>	<p>a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.¹</p>
<p>2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or</p>	<p>Comply with any operating limitations approved by the Administrator.</p>
<p>existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O₂ and not using NSCR.</p>	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe

	15 percent O ₂ . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O ₂ until June 15, 2007	loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O ₂	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O ₂	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your

RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE \geq 250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. ¹
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. ¹
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE \geq 250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE \geq 250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first. ² b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first. ² b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O ₂ .	

4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O ₂ ; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE. ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. ³	
8. Non-Emergency, non-black	a. Change oil and filter	

start 2SLB stationary SI RICE <100 HP	every 4,320 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. ³	
9. Non-emergency, non-black start 2SLB stationary RICE $100 \leq \text{HP} \leq 500$	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O ₂ .	
10. Non-emergency, non-black start 4SLB stationary RICE $100 \leq \text{HP} \leq 500$	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O ₂ .	
11. Non-emergency, non-black start 4SRB stationary RICE $100 \leq \text{HP} \leq 500$	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O ₂ .	
12. Non-emergency, non-black start stationary RICE $100 \leq \text{HP} \leq 500$ which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O ₂ .	

¹If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

²Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

³Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤ 300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ¹ b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE $300 < \text{HP} \leq 500$	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE > 500 HP	a. Limit concentration of CO in the stationary	

	RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹ ; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; ¹	

	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE \leq 500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever	

	comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and	Install NSCR to reduce HAP emissions from the stationary RICE.	

that operate more than 24 hours per calendar year		
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ¹ b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

¹Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

²If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[78 FR 6709, Jan. 30, 2013]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹

located at major sources		
2. 4SRB stationary RICE $\geq 5,000$ HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. ¹
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. ¹
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6711, Jan. 30, 2013]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

TABLE 4 TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR PERFORMANCE TESTS

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O ₂ measurement, ducts ≤ 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤ 12 inches in diameter may be sampled at 3 traverse points located at

				16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^{ac} (heated probe not necessary)	(b) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) ^{abc} (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4	(c) The CO concentration must be at 15 percent O ₂ , dry basis.
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12

				inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.
		ii. Measure O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^a (heated probe not necessary)	(a) Measurements to determine O ₂ concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 ^a	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^a , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with	(1) Method 25A, reported as	(a) THC concentration must be at 15 percent O ₂ , dry basis.

		the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	propane, of 40 CFR part 60, appendix A-7	Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O ₂ , and moisture measurement ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^a (heated probe not necessary)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.

		iii. Measure moisture content of the station-ary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 ^a	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formalde-hyde at the exhaust of the station-ary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^a , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. measure CO at the exhaust of the station-ary RICE	(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005) ^{ac} , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 ^a	(a) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

^aYou may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

^bYou may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[79 FR 11290, Feb. 27, 2014]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and

HP located at an area source of HAP		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS.

		Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation;

located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	oxidation catalyst or NSCR	and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15

		percent O ₂ ;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O ₂ , or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and ii. Collecting the catalyst inlet temperature data according to

of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP		§63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and
		iii. Conducting an annual RATA of

		your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP \geq 5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent. ^a

<p>7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP</p>	<p>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR</p>	<p>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit^a; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p>
		<p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>
<p>8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP</p>	<p>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR</p>	<p>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit^a; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>
<p>9. Existing emergency and black start stationary RICE ≤ 500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE</p>	<p>a. Work or Management practices</p>	<p>i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must</p>

<p>located at an area source of HAP, existing non-emergency stationary CI RICE ≤ 300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤ 500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE > 500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE > 500 HP located at an area source of HAP that are remote stationary RICE</p>		<p>provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p>
<p>10. Existing stationary CI RICE > 500 HP that are not limited use stationary RICE</p>	<p>a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst</p>	<p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and</p>
		<p>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p>
		<p>v. Measuring the pressure drop</p>

		across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating

		limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O ₂ ; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or

		equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O ₂ , or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

^aAfter you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[78 FR 6715, Jan. 30, 2013]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in §63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at	Compliance report	a. If there are no deviations from any emission limitations or operating	i. Semiannually according to the requirements in

<p>a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP</p>		<p>limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or</p>	<p>§63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.</p>
		<p>b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or</p>	<p>i. Semiannually according to the requirements in §63.6650(b).</p>
		<p>c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).</p>	<p>i. Semiannually according to the requirements in §63.6650(b).</p>
<p>2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis</p>	<p>Report</p>	<p>a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the</p>	<p>i. Annually, according to the requirements in §63.6650.</p>

		gross heat input on an annual basis; and	
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in §63.6640(f)(4)(ii)	Report	a. The information in §63.6650(h)(1)	i. annually according to the requirements in §63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and	Yes.	

	circumvention		
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.

§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation	Yes.	

	and maintenance		
§63.8(c)(1)(i)	Routine and predictable SSM	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	

§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in

			§63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.

§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i)(C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

Appendix A—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 SCOPE AND APPLICATION. WHAT IS THIS PROTOCOL?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O₂) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O₂).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O ₂)	7782-44-7	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O₂, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 SUMMARY OF PROTOCOL

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O₂ gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 DEFINITIONS

3.1 Measurement System. The total equipment required for the measurement of CO and O₂ concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O₂ and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre-sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 INTERFERENCES.

When present in sufficient concentrations, NO and NO₂ are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 SAFETY. [RESERVED]

6.0 EQUIPMENT AND SUPPLIES.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O₂ concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O₂; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 REAGENTS AND STANDARDS. WHAT CALIBRATION GASES ARE NEEDED?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O₂. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O₂) is acceptable for calibration of the O₂ cell. If needed, any lower percentage O₂ calibration gas must be a mixture of O₂ in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O₂ Calibration Gas Concentration.

Select an O₂ gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O₂. When the average exhaust gas O₂ readings are above 6 percent, you may use dry ambient air (20.9 percent O₂) for the up-scale O₂ calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO₂).

8.0 SAMPLE COLLECTION AND ANALYSIS

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O₂ concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ±10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check.

Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ± 3 percent, as instructed by the EC cell manufacturer.

9.0 QUALITY CONTROL (RESERVED)

10.0 CALIBRATION AND STANDARDIZATION

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O₂ and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ± 3 percent of the up-scale gas value or ± 1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ± 0.3 percent O₂ for the O₂ channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes. Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to ± 5 percent or ± 1 ppm for CO or ± 0.5 percent O₂, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ± 2 percent or ± 1 ppm for CO or ± 0.5 percent O₂, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 ANALYTICAL PROCEDURE

The analytical procedure is fully discussed in Section 8.

12.0 CALCULATIONS AND DATA ANALYSIS

Determine the CO and O₂ concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the “measurement data phase”.

13.0 PROTOCOL PERFORMANCE

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the “measurement data phase”. The maximum allowable deviation from the mean for each of the individual readings is ± 2 percent, or ± 1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ± 2 percent or ± 1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO₂ gas standards that are generally recognized as representative of diesel-fueled engine NO and NO₂ emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO₂ interference response should be less than or equal to ± 5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average “measurement data phase” CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ± 3 percent or ± 1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 POLLUTION PREVENTION (RESERVED)

15.0 WASTE MANAGEMENT (RESERVED)

16.0 ALTERNATIVE PROCEDURES (RESERVED)

17.0 REFERENCES

(1) "Development of an Electrochemical Cell Emission Analyzer Test Protocol", Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) "Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers", EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) "Code of Federal Regulations", Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

TABLE 1: APPENDIX A—SAMPLING RUN DATA.

Facility_____		Engine I.D._____								Date_____		
Run Type:	()		()		()		()		()			
(X)	Pre-Sample Calibration		Stack Gas Sample				Post-Sample Cal. Check		Repeatability Check			
Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate	
Gas	O ₂	CO	O ₂	CO	O ₂	CO	O ₂	CO				
Sample Cond. Phase												
"												
"												
"												
"												
Measurement Data Phase												
"												
"												
"												
"												
"												
"												
"												

"											
"											
"											
Mean											
Refresh Phase											
"											
"											
"											
"											

[78 FR 6721, Jan. 30, 2013]

Appendix F

40 CFR 63 Subpart AAAAA, *National Emission Standards for Hazardous Air Pollutants for
Lime Manufacturing Plants*

Subpart AAAAA—National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Contents

[WHAT THIS SUBPART COVERS](#)

- [§63.7080 What is the purpose of this subpart?](#)
- [§63.7081 Am I subject to this subpart?](#)
- [§63.7082 What parts of my plant does this subpart cover?](#)
- [§63.7083 When do I have to comply with this subpart?](#)

[EMISSION LIMITATIONS](#)

- [§63.7090 What emission limitations must I meet?](#)

[GENERAL COMPLIANCE REQUIREMENTS](#)

- [§63.7100 What are my general requirements for complying with this subpart?](#)

[TESTING AND INITIAL COMPLIANCE REQUIREMENTS](#)

- [§63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?](#)
- [§63.7111 When must I conduct subsequent performance tests?](#)
- [§63.7112 What performance tests, design evaluations, and other procedures must I use?](#)
- [§63.7113 What are my monitoring installation, operation, and maintenance requirements?](#)
- [§63.7114 How do I demonstrate initial compliance with the emission limitations standard?](#)

[CONTINUOUS COMPLIANCE REQUIREMENTS](#)

- [§63.7120 How do I monitor and collect data to demonstrate continuous compliance?](#)
- [§63.7121 How do I demonstrate continuous compliance with the emission limitations standard?](#)

[NOTIFICATION, REPORTS, AND RECORDS](#)

- [§63.7130 What notifications must I submit and when?](#)
- [§63.7131 What reports must I submit and when?](#)
- [§63.7132 What records must I keep?](#)
- [§63.7133 In what form and for how long must I keep my records?](#)

[OTHER REQUIREMENTS AND INFORMATION](#)

- [§63.7140 What parts of the General Provisions apply to me?](#)
- [§63.7141 Who implements and enforces this subpart?](#)
- [§63.7142 What are the requirements for claiming area source status?](#)
- [§63.7143 What definitions apply to this subpart?](#)
- [Table 1 to Subpart AAAAA of Part 63—Emission Limits](#)
- [Table 2 to Subpart AAAAA of Part 63—Operating Limits](#)

[Table 3 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits](#)
[Table 4 to Subpart AAAAA of Part 63—Requirements for Performance Tests](#)
[Table 5 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits](#)
[Table 6 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits](#)
[Table 7 to Subpart AAAAA of Part 63—Requirements for Reports](#)
[Table 8 to Subpart AAAAA of Part 63—Applicability of General Provisions to Subpart AAAAA](#)

SOURCE: 69 FR 416, Jan. 5, 2004, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.7080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for lime manufacturing plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§63.7081 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions, unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, beet sugar manufacturing plant, or only processes sludge containing calcium carbonate from water softening processes.

(1) An LMP is an establishment engaged in the manufacture of lime product (calcium oxide, calcium oxide with magnesium oxide, or dead burned dolomite) by calcination of limestone, dolomite, shells or other calcareous substances.

(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site.

(b) [Reserved]

§63.7082 What parts of my plant does this subpart cover?

(a) This subpart applies to each existing or new lime kiln(s) and their associated cooler(s), and processed stone handling (PSH) operations system(s) located at an LMP that is a major source.

(b) A new lime kiln is a lime kiln, and (if applicable) its associated lime cooler, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.

(c) A new PSH operations system is the equipment in paragraph (g) of this section, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.

(d) A lime kiln or PSH operations system is reconstructed if it meets the criteria for reconstruction defined in §63.2.

(e) An existing lime kiln is any lime kiln, and (if applicable) its associated lime cooler, that does not meet the definition of a new kiln of paragraph (b) of this section.

(f) An existing PSH operations system is any PHS operations system that does not meet the definition of a new PSH operations system in paragraph (c) of this section.

(g) A PSH operations system includes all equipment associated with PSH operations beginning at the processed stone storage bin(s) or open storage pile(s) and ending where the processed stone is fed into the kiln. It includes man-made processed stone storage bins (but not open processed stone storage piles), conveying system transfer points, bulk loading or unloading systems, screening operations, surge bins, bucket elevators, and belt conveyors. No other materials processing operations are subject to this subpart.

(h) Nuisance dust collectors on lime coolers are part of the lime materials processing operations and are not covered by this subpart.

(i) Lime hydrators are not subject to this subpart.

(j) Open material storage piles are not subject to this subpart.

§63.7083 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(1) If you start up your affected source before January 5, 2004, you must comply with the emission limitations no later than January 5, 2004, and you must have completed all applicable performance tests no later than July 5, 2004.

(2) If you start up your affected source after January 5, 2004, then you must comply with the emission limitations for new affected sources upon startup of your affected source and you must have completed all applicable performance tests no later than 180 days after startup.

(b) If you have an existing affected source, you must comply with the applicable emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than January 5, 2007.

(c) If you have an LMP that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the deadlines specified in paragraphs (c)(1) and (2) of this section apply.

(1) New affected sources at your LMP you must be in compliance with this subpart upon startup.

(2) Existing affected sources at your LMP must be in compliance with this subpart within 3 years after your source becomes a major source of HAP.

(d) You must meet the notification requirements in §63.7130 according to the schedule in §63.7130 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

EMISSION LIMITATIONS

§63.7090 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

GENERAL COMPLIANCE REQUIREMENTS

§63.7100 What are my general requirements for complying with this subpart?

(a) After your initial compliance date, you must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must be in compliance with the opacity and visible emission (VE) limits in this subpart during the times specified in §63.6(h)(1).

(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(d) You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 CFR part 70 or 40 CFR part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.

(2) A monitoring schedule for each emission unit.

(3) Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1 and 2 to this subpart, respectively.

(4) Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:

(i) Calibration and certification of accuracy of each monitoring device;

(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

(iii) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), and (4)(ii); and

(iv) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d).

(5) Procedures for monitoring process and control device parameters.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 2 to this subpart, including:

(i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.

(7) A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(e) You must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

[69 FR 416, Jan. 5, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

TESTING AND INITIAL COMPLIANCE REQUIREMENTS

§63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) If you have an existing affected source, you must complete all applicable performance tests within January 5, 2007, according to the provisions in §§63.7(a)(2) and 63.7114.

(b) If you have a new affected source, and commenced construction or reconstruction between December 20, 2002, and January 5, 2004, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than 180 calendar days after January 5, 2004 or within 180 calendar days after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.

(c) If you commenced construction or reconstruction between December 20, 2002, and January 5, 2004, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a demonstration of compliance with the promulgated emission limitation within January 5, 2007 or after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.

(d) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within existing affected sources at LMP begins at 12:01 a.m. on the compliance date for existing affected sources, that is, the day following completion of the initial compliance demonstration, and ends at 3:01 a.m. on the same day.

(e) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within new or reconstructed affected sources at LMP begins at 12:01 a.m. on the day following completion of the initial compliance demonstration, as required in paragraphs (b) and (c) of this section, and ends at 3:01 a.m. on the same day.

§63.7111 When must I conduct subsequent performance tests?

You must conduct a performance test within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.

§63.7112 What performance tests, design evaluations, and other procedures must I use?

(a) You must conduct each performance test in Table 4 to this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements in §63.7(e)(1) and under the specific conditions specified in Table 4 to this subpart.

(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).

(d) Except for opacity and VE observations, you must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(e) The emission rate of particulate matter (PM) from each lime kiln (and each lime cooler if there is a separate exhaust to the atmosphere from the lime cooler) must be computed for each run using Equation 1 of this section:

$$E = (C_k Q_k + C_c Q_c) / PK \quad (\text{Eq. 1})$$

Where:

E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.

C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).

C_c = Concentration of PM in the cooler effluent, grain/dscf. This value is zero if there is not a separate cooler exhaust to the atmosphere.

Q_c = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.

P = Stone feed rate, tons per hour (ton/hr).

K = Conversion factor, 7000 grains per pound (grains/lb).

(f)(1) If you choose to meet a weighted average emission limit as specified in item 4 of Table 1 to this subpart, you must calculate a combined particulate emission rate from all kilns and coolers within your LMP using Equation 2 of this section:

$$E_T = \frac{\sum_{i=1}^n E_i P_i}{\sum_{i=1}^n P_i} \quad (\text{Eq. 2})$$

Where:

E_T = Emission rate of PM from all kilns and coolers, lb/ton of stone feed.

E_i = Emission rate of PM from kiln i, or from kiln/cooler combination i, lb/ton of stone feed.

P_i = Stone feed rate to kiln i, ton/hr.

n = Number of kilns you wish to include in averaging.

(2) You do not have to include every kiln in this calculation, only include kilns you wish to average. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.

(g) The weighted average PM emission limit from all kilns and coolers for which you are averaging must be calculated using Equation 3 of this section:

$$E_{TN} = \frac{\sum_{j=1}^m E_j P_j}{\sum_{j=1}^m P_j} \quad (\text{Eq. 3})$$

Where:

E_{TN} = Weighted average PM emission limit for all kilns and coolers being included in averaging at the LMP, lb/ton of stone feed.

E_j = PM emission limit (0.10 or 0.12) for kiln j, or for kiln/cooler combination j, lb/ton of stone feed.

P_j = Stone feed rate to kiln j, ton/hr.

m = Number of kilns and kiln/cooler combinations you are averaging at your LMP. You must include the same kilns in the calculation of E_j and E_{TN} . Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.

(h) Performance test results must be documented in complete test reports that contain the information required by paragraphs (h)(1) through (10) of this section, as well as all other relevant information. The plan to be followed during testing must be made available to the Administrator at least 60 days prior to testing.

(1) A brief description of the process and the air pollution control system;

(2) Sampling location description(s);

(3) A description of sampling and analytical procedures and any modifications to standard procedures;

(4) Test results, including opacity;

(5) Quality assurance procedures and results;

(6) Records of operating conditions during the test, preparation of standards, and calibration procedures;

(7) Raw data sheets for field sampling and field and laboratory analyses;

(8) Documentation of calculations;

(9) All data recorded and used to establish operating limits; and

(10) Any other information required by the test method.

(i) [Reserved]

(j) You must establish any applicable 3-hour block average operating limit indicated in Table 2 to this subpart according to the applicable requirements in Table 3 to this subpart and paragraphs (j)(1) through (4) of this section.

(1) Continuously record the parameter during the PM performance test and include the parameter record(s) in the performance test report.

(2) Determine the average parameter value for each 15-minute period of each test run.

(3) Calculate the test run average for the parameter by taking the average of all the 15-minute parameter values for the run.

(4) Calculate the 3-hour operating limit by taking the average of the three test run averages.

(k) For each building enclosing any PSH operations that is subject to a VE limit, you must conduct a VE check according to item 18 in Table 4 to this subpart, and in accordance with paragraphs (k)(1) through (3) of this section.

(1) Conduct visual inspections that consist of a visual survey of the building over the test period to identify if there are VE, other than condensed water vapor.

(2) Select a position at least 15 but not more 1,320 feet from each side of the building with the sun or other light source generally at your back.

(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 in appendix A to part 60 of this chapter.

(l) When determining compliance with the opacity standards for fugitive emissions from PSH operations in item 7 of Table 1 to this subpart, you must conduct EPA Method 9 in appendix A to part 60 of this chapter according to item 17 in Table 4 to this subpart, and in accordance with paragraphs (l)(1) through (3) of this section.

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun must be followed.

(3) If you use wet dust suppression to control PM from PSH operations, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered VE. When a water mist of this nature is present, you must observe emissions at a point in the plume where the mist is no longer visible.

§63.7113 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to your OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of this section, and you must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of this section

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

(2) To calculate a valid hourly value, you must have at least four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according your OM&M plan, and use all valid data.

(3) To calculate the average for each 3-hour block averaging period, you must use all valid data, and you must have at least 66 percent of the hourly averages for that period using only hourly average values that are based on valid data (*i.e.*, not from out-of-control periods).

(4) You must conduct a performance evaluation of each CPMS in accordance with your OM&M plan.

(5) You must continuously operate and maintain the CPMS according to the OM&M plan, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of this section.

(1) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.

(2) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(3) Conduct a flow sensor calibration check at least semiannually.

(4) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of this section.

(1) Locate the pressure sensor(s) in or as close to as possible a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) For each bag leak detection system (BLDS), you must meet any applicable requirements in paragraphs (a)(1) through (5) and (d)(1) through (8) of this section.

(1) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The sensor on the BLDS must provide output of relative PM emissions.

(3) The BLDS must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure fabric filter (FF), each compartment or cell must have a bag leak detector (BLD). For a negative-pressure or induced-air FF, the BLD must be installed downstream of the FF. If multiple BLD are required (for either type of FF), the detectors may share the system instrumentation and alarm.

(6) Bag leak detection systems must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(i) Adjust the range and the averaging period of the device.

(ii) Establish the alarm set points and the alarm delay time.

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by §63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official, as defined in §63.2, certifies in writing to the Administrator that the FF has been inspected and found to be in good operating condition.

(e) For each PM detector, you must meet any applicable requirements in paragraphs (a)(1) through (5) and (e)(1) through (8) of this section.

(1) The PM detector must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The sensor on the PM detector must provide output of relative PM emissions.

(3) The PM detector must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure electrostatic precipitator (ESP), each compartment must have a PM detector. For a negative-pressure or induced-air ESP, the PM detector must be installed downstream of the ESP. If multiple PM detectors are required (for either type of ESP), the detectors may share the system instrumentation and alarm.

(6) Particulate matter detectors must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(i) Adjust the range and the averaging period of the device.

(ii) Establish the alarm set points and the alarm delay time.

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by §63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official as defined in §63.2 certifies in writing to the Administrator that the ESP has been inspected and found to be in good operating condition.

(f) For each emission unit equipped with an add-on air pollution control device, you must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in item 6 of Table 2 to this subpart and record the results of each inspection.

(g) For each COMS used to monitor an add-on air pollution control device, you must meet the requirements in paragraphs (g)(1) and (2) of this section.

(1) Install the COMS at the outlet of the control device.

(2) Install, maintain, calibrate, and operate the COMS as required by 40 CFR part 63, subpart A, General Provisions and according to Performance Specification (PS)-1 of appendix B to part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.

§63.7114 How do I demonstrate initial compliance with the emission limitations standard?

(a) You must demonstrate initial compliance with each emission limit in Table 1 to this subpart that applies to you, according to Table 3 to this subpart. For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of this section exist:

(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or

(2) The control device exhausts through a monovent; or

(3) The installation of a COMS in accordance with PS-1 of appendix B to part 60 is infeasible.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in §63.7112(j) and Table 4 to this subpart. Alternative parameters may be monitored if approval is obtained according to the procedures in §63.8(f)

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7130(e).

CONTINUOUS COMPLIANCE REQUIREMENTS

§63.7120 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), and except for PSH operations subject to monthly VE testing, you must monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating.

(c) Data recorded during the conditions described in paragraphs (c)(1) through (3) of this section may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(3) Start-ups, shutdowns, and malfunctions.

§63.7121 How do I demonstrate continuous compliance with the emission limitations standard?

(a) You must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Tables 5 and 6 to this subpart.

(b) You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131.

(c) [Reserved]

(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

(e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 6 to this subpart, and as follows:

(1) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor.

(2) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at your back.

(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to part 60 of this chapter.

(f) For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (f)(1) or (3) of this section exist:

- (1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or
- (2) The control device exhausts through a monovent; or
- (3) The installation of a COMS in accordance with PS-1 of appendix B to part 60 is infeasible.

[69 FR 416, Jan. 5, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

NOTIFICATION, REPORTS, AND RECORDS

§63.7130 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.6(h)(4) and (5); 63.7(b) and (c); 63.8(e); (f)(4) and (6); and 63.9 (a) through (j) that apply to you, by the dates specified.

(b) As specified in §63.9(b)(2), if you start up your affected source before January 5, 2004, you must submit an initial notification not later than 120 calendar days after January 5, 2004.

(c) If you startup your new or reconstructed affected source on or after January 5, 2004, you must submit an initial notification not later than 120 calendar days after you start up your affected source.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in §63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, opacity observation, VE observation, or other initial compliance demonstration as specified in Table 3 or 4 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 3 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 4 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2).

§63.7131 What reports must I submit and when?

(a) You must submit each report listed in Table 7 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date specified in Table 7 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section:

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7083 and ending on June 30 or December 31, whichever date is the first date following the end of the first half calendar year after the compliance date that is specified for your source in §63.7083.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first half calendar year after the compliance date that is specified for your affected source in §63.7083.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, if the permitting authority has established dates for submitting semiannual reports pursuant to §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information specified in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that apply to you, the compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring systems (CMS) were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.

(d) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information specified in paragraphs (c)(1) through (4) and (d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in §63.10(d).

(1) The total operating time of each emission unit during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) occurring at an affected source where you are using a CMS to comply with the emission limitation in this subpart, you must include the information specified in paragraphs (c)(1) through (4) and (e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total affected source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total emission unit operating time during that reporting period.

(8) A brief description of the process units.

(9) A brief description of the CMS.

(10) The date of the latest CMS certification or audit.

(11) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each facility that has obtained a title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter. If you submit a compliance report specified in Table 7 to this subpart along with, or as part of, the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

§63.7132 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii).

(b) You must keep the records in §63.6(h)(6) for VE observations.

(c) You must keep the records required by Tables 5 and 6 to this subpart to show continuous compliance with each emission limitation that applies to you.

(d) You must keep the records which document the basis for the initial applicability determination as required under §63.7081.

§63.7133 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

OTHER REQUIREMENTS AND INFORMATION

§63.7140 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. When there is overlap between subpart A and subpart AAAAA, as indicated in the “Explanations” column in Table 8, subpart AAAAA takes precedence.

§63.7141 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or by a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (6) of this section.

- (1) Approval of alternatives to the non-opacity emission limitations in §63.7090(a).
- (2) Approval of alternative opacity emission limitations in §63.7090(a).
- (3) Approval of alternatives to the operating limits in §63.7090(b).
- (4) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
- (5) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (6) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§63.7142 What are the requirements for claiming area source status?

(a) If you wish to claim that your LMP is an area source, you must measure the emissions of hydrogen chloride from all lime kilns, except as provided in paragraph (c) of this section, at your plant using either:

- (1) EPA Method 320 of appendix A to this part,
- (2) EPA Method 321 of appendix A to this part, or

(3) ASTM Method D6735-01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, provided that the provisions in paragraphs (a)(3)(i) through (vi) of this section are followed.

(i) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735-01.

(ii) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100) \text{ Absolute Value } \left[\frac{C1_a - C2_a}{C1_a + C2_a} \right] \quad (Eq. 1)$$

Where:

RSD_a = The test run relative standard deviation of sample pair a, percent.

C1_a and C2_a = The HCl concentrations, milligram/dry standard cubic meter(mg/dscm), from the paired samples.

(iii) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^p RSD_a}{p} \quad (Eq. 2)$$

Where:

RSD_{TA} = The test average relative standard deviation, percent.

RSD_a = The test run relative standard deviation for sample pair a.

p = The number of test runs, ≥ 3 .

(iv) If RSD^{TA} is greater than 20 percent, the data are invalid and the test must be repeated.

(v) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735-01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735-01.

(vi) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.

(b) If you conduct tests to determine the rates of emission of specific organic HAP from lime kilns at LMP for use in applicability determinations under §63.7081, you may use either:

(1) Method 320 of appendix A to this part, or

(2) Method 18 of appendix A to part 60 of this chapter, or

(3) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS), provided that the provisions of paragraphs (b)(3)(i) through (iv) of this section are followed:

(i) The target compound(s) are those listed in section 1.1 of ASTM D6420-99;

(ii) The target concentration is between 150 parts per billion by volume and 100 parts per million by volume;

(iii) For target compound(s) not listed in Table 1.1 of ASTM D6420-99, but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in section 10.5.3 of ASTM D6420-99, is conducted, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water soluble; and

(iv) For target compound(s) not listed in Table 1.1 of ASTM D6420-99, and not amenable to detection by mass spectrometry, ASTM D6420-99 may not be used.

(c) It is left to the discretion of the permitting authority whether or not idled kilns must be tested for (HCl) to claim area source status. If the facility has kilns that use common feed materials and fuel, are essentially identical in design, and use essentially identical emission controls, the permitting authority may also determine if one kiln can be tested, and the HCl emissions for the other essentially identical kilns be estimated from that test.

§63.7143 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:

Bag leak detector system (BLDS) is a type of PM detector used on FF to identify an increase in PM emissions resulting from a broken filter bag or other malfunction and sound an alarm.

Belt conveyor means a conveying device that transports *processed stone* from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a *processed stone* conveying device consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport PM to a control device.

Control device means the air pollution control equipment used to reduce PM emissions released to the atmosphere from one or more process operations at an LMP.

Conveying system means a device for transporting *processed stone* from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to feeders, belt conveyors, bucket elevators and pneumatic systems.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit);

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

Emission limitation means any emission limit, opacity limit, operating limit, or VE limit.

Emission unit means a lime kiln, lime cooler, storage bin, conveying system transfer point, bulk loading or unloading operation, bucket elevator or belt conveyor at an LMP.

Fugitive emission means PM that is not collected by a capture system.

Hydrator means the device used to produce hydrated lime or calcium hydroxide via the chemical reaction of the lime product with water.

Lime cooler means the device external to the lime kiln (or part of the lime kiln itself) used to reduce the temperature of the lime produced by the kiln.

Lime kiln means the device, including any associated preheater, used to produce a lime product from stone feed by calcination. Kiln types include, but are not limited to, rotary kiln, vertical kiln, rotary hearth kiln, double-shaft vertical kiln, and fluidized bed kiln.

Lime manufacturing plant (LMP) means any plant which uses a lime kiln to produce lime product from limestone or other calcareous material by calcination.

Lime product means the product of the lime kiln calcination process including, calcitic lime, dolomitic lime, and dead-burned dolomite.

Limestone means the material comprised primarily of calcium carbonate (referred to sometimes as calcitic or high calcium limestone), magnesium carbonate, and/or the double carbonate of both calcium and magnesium (referred to sometimes as dolomitic limestone or dolomite).

Monovent means an exhaust configuration of a building or emission control device (e.g., positive pressure FF) that extends the length of the structure and has a width very small in relation to its length (i.e., length-to-width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

Particulate matter (PM) detector means a system that is continuously capable of monitoring PM loading in the exhaust of FF or ESP in order to detect bag leaks, upset conditions, or control device malfunctions and sounds an alarm at a preset level. A PM detector system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effects to continuously monitor relative particulate loadings. A BLDS is a type of PM detector.

Positive pressure FF or ESP means a FF or ESP with the fan(s) on the upstream side of the control device.

Process stone handling operations means the equipment and transfer points between the equipment used to transport *processed stone*, and includes, storage bins, conveying system transfer points, bulk loading or unloading systems, screening operations, bucket elevators, and belt conveyors.

Processed stone means limestone or other calcareous material that has been processed to a size suitable for feeding into a lime kiln.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

Stack emissions means the PM that is released to the atmosphere from a capture system or control device.

Storage bin means a manmade enclosure for storage (including surge bins) of *processed stone* prior to the lime kiln.

Transfer point means a point in a conveying operation where the material is transferred to or from a belt conveyor.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying PM emissions from one or more emission units.

Table 1 to Subpart AAAAA of Part 63—Emission Limits

As required in §63.7090(a), you must meet each emission limit in the following table that applies to you.

For . . .	You must meet the following emission limit
1. Existing lime kilns and their	PM emissions must not exceed 0.12 pounds per ton of

associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004	stone feed (lb/tsf).
2. Existing lime kilns and their associated lime coolers that have a wet scrubber, where the scrubber itself was installed and operating prior to January 5, 2004	PM emissions must not exceed 0.60 lb/tsf. If at any time after January 5, 2004 the kiln changes to a dry control system, then the PM emission limit in item 1 of this Table 1 applies, and the kiln is hereafter ineligible for the PM emission limit in item 2 of this Table 1 regardless of the method of PM control.
3. New lime kilns and their associated lime coolers	PM emissions must not exceed 0.10 lb/tsf.
4. All existing and new lime kilns and their associated coolers at your LMP, and you choose to average PM emissions, except that any kiln that is allowed to meet the 0.60 lb/tsf PM emission limit is ineligible for averaging	Weighted average PM emissions calculated according to Eq. 2 in §63.7112 must not exceed 0.12 lb/tsf (if you are averaging only existing kilns) or 0.10 lb/tsf (if you are averaging only new kilns). If you are averaging existing and new kilns, your weighted average PM emissions must not exceed the weighted average emission limit calculated according to Eq. 3 in §63.7112, except that no new kiln and its associated cooler considered alone may exceed an average PM emissions limit of 0.10 lb/tsf.
5. Stack emissions from all PSH operations at a new or existing affected source	PM emissions must not exceed 0.05 grams per dry standard cubic meter (g/dscm).
6. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity.
7. Fugitive emissions from all PSH operations at a new or existing affected source, except as provided by item 8 of this Table 1	Emissions must not exceed 10 percent opacity.
8. All PSH operations at a new or existing affected source enclosed in a building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations in items 5 through 7 of this Table 1, or the building must comply with the following: There must be no VE from the building, except from a vent; and vent emissions must not exceed the stack emissions limitations in items 5 and 6 of this Table 1.
9. Each FF that controls emissions from only an individual, enclosed storage bin	Emissions must not exceed 7 percent opacity.

10. Each set of multiple storage bins at a new or existing affected source, with combined stack emissions	You must comply with the emission limits in items 5 and 6 of this Table 1.
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Table 2 to Subpart AAAAA of Part 63—Operating Limits

As required in §63.7090(b), you must meet each operating limit in the following table that applies to you.

For . . .	You must . . .
1. Each lime kiln and each lime cooler (if there is a separate exhaust to the atmosphere from the associated lime cooler) equipped with an FF	Maintain and operate the FF such that the BLDS or PM detector alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period; and comply with the requirements in §63.7113(d) through (f) and Table 5 to this subpart. In lieu of a BLDS or PM detector maintain the FF such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent; and comply with the requirements in §63.7113(f) and (g) and Table 5 to this subpart.
2. Each lime kiln equipped with a wet scrubber	Maintain the 3-hour block exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the most recent PM performance test; and maintain the 3-hour block scrubbing liquid flow rate greater than the flow rate operating limit established during the most recent performance test.
3. Each lime kiln equipped with an electrostatic precipitator	Install a PM detector and maintain and operate the ESP such that the PM detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period, and comply with §63.7113(e); or, maintain the ESP such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in §63.7113(g); and comply with the requirements in §63.7113(f) and Table 5 to this subpart.
4. Each PSH operation subject to a PM limit which uses a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test.
5. All affected sources	Prepare a written OM&M plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart.
6. Each emission unit equipped with an add-on air pollution	a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of

control device	controlling temperature at the inlet to an FF; and b. Operate each capture/collection system according to the procedures and requirements in the OM&M plan.
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Table 3 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits

As required in §63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.

For . . .	For the following emission limit . . .	You have demonstrated initial compliance, if after following the requirements in §63.7112 . . .
1. All new or existing lime kilns and their associated lime coolers (kilns/coolers)	PM emissions must not exceed 0.12 lb/tsf for all existing kilns/coolers with dry controls, 0.60 lb/tsf for existing kilns/coolers with wet scrubbers, 0.10 lb/tsf for all new kilns/coolers, or a weighted average calculated according to Eq. 3 in §63.7112	The kiln outlet PM emissions (and if applicable, summed with the separate cooler PM emissions), based on the PM emissions measured using Method 5 in appendix A to part 60 of this chapter and the stone feed rate measurement over the period of initial performance test, do not exceed the emission limit; if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions with a BLDS or PM detector, you have installed and are operating the monitoring device according to the requirements in §63.7113(d) or (e), respectively; and if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions using a COMS, you have installed and are operating the COMS according to the requirements in §63.7113(g).
2. Stack emissions from all PHS operations at a new or existing affected source	PM emissions must not exceed 0.05 g/dscm	The outlet PM emissions, based on Method 5 or Method 17 in appendix A to part 60 of this chapter, over the period of the initial performance test do not exceed 0.05 g/dscm; and if the emission unit is controlled with a wet scrubber, you have a record of the scrubber's pressure drop and liquid flow rate operating parameters over the 3-hour

		performance test during which emissions did not exceed the emissions limitation.
3. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity	Each of the thirty 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit. At least thirty 6-minute averages must be obtained.
4. Fugitive emissions from all PSH operations at a new or existing affected source	Emissions must not exceed 10 percent opacity	Each of the 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 10 percent opacity limit.
5. All PSH operations at a new or existing affected source, enclosed in building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations for items 2 through 4 of this Table 3, or the building must comply with the following: There must be no VE from the building, except from a vent, and vent emissions must not exceed the emission limitations in items 2 and 3 of this Table 3	All the PSH operations enclosed in the building have demonstrated initial compliance according to the applicable requirements for items 2 through 4 of this Table 3; or if you are complying with the building emission limitations, there are no VE from the building according to item 18 of Table 4 to this subpart and §63.7112(k), and you demonstrate initial compliance with applicable building vent emissions limitations according to the requirements in items 2 and 3 of this Table 3.
6. Each FF that controls emissions from only an individual storage bin	Emissions must not exceed 7 percent opacity	Each of the ten 6-minute averages during the 1-hour initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit.
7. Each set of multiple storage bins with combined stack emissions	You must comply with emission limitations in items 2 and 3 of this Table 3	You demonstrate initial compliance according to the requirements in items 2 and 3 of this Table 3.

Table 4 to Subpart AAAAA of Part 63—Requirements for Performance Tests

As required in §63.7112, you must conduct each performance test in the following table that applies to you.

For . . .	You must . . .	Using . . .	According to the following requirements . . .
1. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Select the location of the sampling port and the number of traverse ports	Method 1 or 1A of appendix A to part 60 of this chapter; and §63.6(d)(1)(i)	Sampling sites must be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
2. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Determine velocity and volumetric flow rate	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter	Not applicable.
3. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Conduct gas molecular weight analysis	Method 3, 3A, or 3B in appendix A to part 60 of this chapter	Not applicable.
4. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Measure moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter	Not applicable.
5. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a negative pressure PM control device	Measure PM emissions	Method 5 in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e); the minimum sampling volume must be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)); if there is a separate lime cooler exhaust to

			the atmosphere, you must conduct the Method 5 test of the cooler exhaust concurrently with the kiln exhaust test.
6. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a positive pressure FF or ESP	Measure PM emissions	Method 5D in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the separate cooler exhaust concurrently with the kiln exhaust test.
7. Each lime kiln	Determine the mass rate of stone feed to the kiln during the kiln PM emissions test	Any suitable device	Calibrate and maintain the device according to manufacturer's instructions; the measuring device used must be accurate to within ± 5 percent of the mass rate of stone feed over its operating range.
8. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average gas stream pressure drop across the wet scrubber	Data for the gas stream pressure drop measurement device during the kiln PM performance test	The continuous pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
9. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average liquid flow rate to the scrubber	Data from the liquid flow rate measurement device during the kiln PM performance test	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
10. Each lime kiln equipped with a FF or ESP that is	Have installed and have operating the	Standard operating procedures incorporated into the OM&M plan	According to the requirements in §63.7113(d) or (e), respectively.

monitored with a PM detector	BLDS or PM detector prior to the performance test		
11. Each lime kiln equipped with a FF or ESP that is monitored with a COMS	Have installed and have operating the COMS prior to the performance test	Standard operating procedures incorporated into the OM&M plan and as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2)	According to the requirements in §63.7113(g).
12. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to a PM emission limit	Measure PM emissions	Method 5 or Method 17 in appendix A to part 60 of this chapter	The sample volume must be at least 1.70 dscm (60 dscf); for Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters; and if the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter (Method 17 may be used only with exhaust gas temperatures of not more than 250 °F).
13. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to an opacity limit	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 3 hours and you must obtain at least thirty, 6-minute averages.

14. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber	Establish the average gas stream pressure drop across the wet scrubber	Data for the gas stream pressure drop measurement device during the PSH operation stack PM performance test	The pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
15. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber	Establish the operating limit for the average liquid flow rate to the scrubber	Data from the liquid flow rate measurement device during the PSH operation stack PM performance test	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
16. Each FF that controls emissions from only an individual, enclosed, new or existing storage bin	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 1 hour and you must obtain ten 6-minute averages.
17. Fugitive emissions from any PSH operation subject to an opacity limit	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10 percent during the first 1-hour period.
18. Each building enclosing any PSH operation, that is subject to a VE limit	Conduct VE check	The specifications in §63.7112(k)	The performance test must be conducted while all affected PSH operations within the building are operating; the performance test for each affected building must be at least 75 minutes, with each side of the building and roof being observed for at least 15 minutes.

Table 5 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits

As required in §63.7121, you must demonstrate continuous compliance with each operating limit that applies to you, according to the following table:

For . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
1. Each lime kiln controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
2. Each lime kiln or lime cooler equipped with a FF and using a BLDS, and each lime kiln equipped with an ESP or FF using a PM detector	a. Maintain and operate the FF or ESP such that the bag leak or PM detector alarm, is not activated and alarm condition does not exist for more than 5 percent of the total operating time in each 6-month period	(i) Operating the FF or ESP so that the alarm on the bag leak or PM detection system is not activated and an alarm condition does not exist for more than 5 percent of the total operating time in each 6-month reporting period; and continuously recording the output from the BLD or PM detection system; and
		(ii) Each time the alarm sounds and the owner or operator initiates corrective actions within 1 hour of the alarm, 1 hour of alarm time will be counted (if the owner or operator takes longer than 1 hour to initiate corrective actions, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions); if inspection of the FF or ESP system demonstrates that no corrective

		actions are necessary, no alarm time will be counted.
3. Each stack emissions source from a PSH operation subject to an opacity limit, which is controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
4. For each lime kiln or lime cooler equipped with a FF or an ESP that uses a COMS as the monitoring device	a. Maintain and operate the FF or ESP such that the average opacity for any 6-minute block period does not exceed 15 percent	i. Installing, maintaining, calibrating and operating a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2); and
		ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

Table 6 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits

As required in §63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table:

For . . .	For the following emission limitation . . .	You must demonstrate ongoing compliance . . .
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<p>1. Each PSH operation subject to an opacity limitation as required in Table 1 to this subpart, or any vents from buildings subject to an opacity limitation</p>	<p>a. 7-10 percent opacity, depending on the PSH operation, as required in Table 1 to this subpart</p>	<p>(i) Conducting a monthly 1-minute VE check of each emission unit in accordance with §63.7121(e); the check must be conducted while the affected source is in operation; (ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually for that emission unit; if VE are observed during any semiannual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks;</p>
		<p>(iii) If no VE are observed during the semiannual check for any emission unit, you may decrease the frequency of VE checking from semi-annually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and</p>
		<p>(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter; you must begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.</p>
<p>2. Any building subject to a VE limit, according to item 8 of Table 1 to this subpart</p>	<p>a. No VE</p>	<p>(i) Conducting a monthly VE check of the building, in accordance with the specifications in §63.7112(k); the check must be conducted while all the enclosed PSH operations are operating; (ii) The check for each affected building must be at least 5 minutes, with each side of the building and roof being observed for at least 1 minute;</p>
		<p>(iii) If no VE are observed in 6 consecutive monthly checks of the building, you may decrease the frequency of checking from monthly to semi-annually for that affected source; if VE are observed during any semi-annual check, you must resume checking on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and</p>

		(iv) If no VE are observed during the semi-annual check, you may decrease the frequency of checking from semi-annually to annually for that affected source; and if VE are observed during any annual check, you must resume checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks (the source is in compliance if no VE are observed during any of these checks).
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Table 7 to Subpart AAAAA of Part 63—Requirements for Reports

As required in §63.7131, you must submit each report in this table that applies to you.

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period;	Semiannually according to the requirements in §63.7131(b).
	b. If there were no periods during which the CMS, including any operating parameter monitoring system, was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period;	Semiannually according to the requirements in §63.7131(b).
	c. If you have a deviation from any emission limitation (emission limit, operating limit, opacity limit, and VE limit) during the reporting period, the report must contain the information in §63.7131(d);	Semiannually according to the requirements in §63.7131(b).
	d. If there were periods during which the CMS, including any operating parameter monitoring system, was out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7131(e); and	Semiannually according to the requirements in §63.7131(b).

	e. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i)	Semiannually according to the requirements in §63.7131(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the SSMP.
3. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	The information in §63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. See §63.10(d)(5)(ii).

Table 8 to Subpart AAAAA of Part 63—Applicability of General Provisions to Subpart AAAAA

As required in §63.7140, you must comply with the applicable General Provisions requirements according to the following table:

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.1(a)(1)-(4)	Applicability	Yes	
§63.1(a)(5)		No	
§63.1(a)(6)	Applicability	Yes	
§63.1(a)(7)-(a)(9)		No	
§63.1(a)(10)-(a)(14)	Applicability	Yes	
§63.1(b)(1)	Initial Applicability Determination	Yes	§§63.7081 and 63.7142 specify additional applicability determination requirements.
§63.1(b)(2)		No	
§63.1(b)(3)	Initial Applicability	Yes	

	Determination		
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Permit Requirements	No	Area sources not subject to subpart AAAAA, except all sources must make initial applicability determination.
§63.1(c)(3)		No	
§63.1(c)(4)-(5)	Extensions, Notifications	Yes	
§63.1(d)		No	
§63.1(e)	Applicability of Permit Program	Yes	
§63.2	Definitions		Additional definitions in §63.7143.
§63.3(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(a)(2)	Prohibited Activities	Yes	
§63.4(a)(3)-(a)(5)		No	
§63.4(b)-(c)	Circumvention, Severability	Yes	
§63.5(a)(1)-(2)	Construction/Reconstruction	Yes	
§63.5(b)(1)	Compliance Dates	Yes	
§63.5(b)(2)		No	
§63.5(b)(3)-(4)	Construction Approval, Applicability	Yes	
§63.5(b)(5)		No	
§63.5(b)(6)	Applicability	Yes	
§63.5(c)		No	
§63.5(d)(1)-(4)	Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	
§63.5(f)(1)-(2)	Approval of Construction/Reconstruction	Yes	
§63.6(a)	Compliance for Standards and Maintenance	Yes	

§63.6(b)(1)-(5)	Compliance Dates	Yes	
§63.6(b)(6)		No	
§63.6(b)(7)	Compliance Dates	Yes	
§63.6(c)(1)-(2)	Compliance Dates	Yes	
§63.6(c)(3)-(c)(4)		No	
§63.6(c)(5)	Compliance Dates	Yes	
§63.6(d)		No	
§63.6(e)(1)	Operation & Maintenance	Yes	See §63.7100 for OM&M requirements.
§63.6(e)(2)		No	
§63.6(e)(3)	Startup, Shutdown Malfunction Plan	Yes	
§63.6(f)(1)-(3)	Compliance with Emission Standards	Yes	
§63.6(g)(1)-(g)(3)	Alternative Standard	Yes	
§63.6(h)(1)-(2)	Opacity/VE Standards	Yes	
§63.6(h)(3)		No	
§63.6(h)(4)-(h)(5)(i)	Opacity/VE Standards	Yes	This requirement only applies to opacity and VE performance checks required in Table 4 to subpart AAAAA.
§63.6(h)(5) (ii)-(iii)	Opacity/VE Standards	No	Test durations are specified in subpart AAAAA; subpart AAAAA takes precedence.
§63.6(h)(5)(iv)	Opacity/VE Standards	No	
§63.6(h)(5)(v)	Opacity/VE Standards	Yes	
§63.6(h)(6)	Opacity/VE Standards	Yes	
§63.6(h)(7)	COM Use	Yes	
§63.6(h)(8)	Compliance with Opacity and VE	Yes	
§63.6(h)(9)	Adjustment of Opacity Limit	Yes	
§63.6(i)(1)-(i)(14)	Extension of Compliance	Yes	

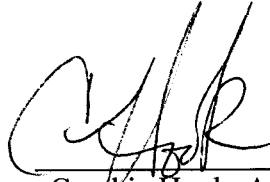
§63.6(i)(15)		No	
§63.6(i)(16)	Extension of Compliance	Yes	
§63.6(j)	Exemption from Compliance	Yes	
§63.7(a)(1)-(a)(3)	Performance Testing Requirements	Yes	§63.7110 specifies deadlines; §63.7112 has additional specific requirements.
§63.7(b)	Notification	Yes	
§63.7(c)	Quality Assurance/Test Plan	Yes	
§63.7(d)	Testing Facilities	Yes	
§63.7(e)(1)-(4)	Conduct of Tests	Yes	
§63.7(f)	Alternative Test Method	Yes	
§63.7(g)	Data Analysis	Yes	
§63.7(h)	Waiver of Tests	Yes	
§63.8(a)(1)	Monitoring Requirements	Yes	See §63.7113.
§63.8(a)(2)	Monitoring	Yes	
§63.8(a)(3)		No	
§63.8(a)(4)	Monitoring	No	Flares not applicable.
§63.8(b)(1)-(3)	Conduct of Monitoring	Yes	
§63.8(c)(1)-(3)	CMS Operation/Maintenance	Yes	
§63.8(c)(4)	CMS Requirements	No	See §63.7121.
§63.8(c)(4)(i)-(ii)	Cycle Time for COM and CEMS	Yes	No CEMS are required under subpart AAAAAA; see §63.7113 for CPMS requirements.
§63.8(c)(5)	Minimum COM procedures	Yes	COM not required.
§63.8(c)(6)	CMS Requirements	No	See §63.7113.
§63.8(c)(7)-(8)	CMS Requirements	Yes	
§63.8(d)	Quality Control	No	See §63.7113.
§63.8(e)	Performance Evaluation for CMS	No	
§63.8(f)(1)-(f)(5)	Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative	No	

	Accuracy test		
§63.8(g)(1)-(g)(5)	Data Reduction; Data That Cannot Be Used	No	See data reduction requirements in §§63.7120 and 63.7121.
§63.9(a)	Notification Requirements	Yes	See §63.7130.
§63.9(b)	Initial Notifications	Yes	
§63.9(c)	Request for Compliance Extension	Yes	
§63.9(d)	New Source Notification for Special Compliance Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	
§63.9(f)	Notification of VE/Opacity Test	Yes	This requirement only applies to opacity and VE performance tests required in Table 4 to subpart AAAAA. Notification not required for VE/opacity test under Table 6 to subpart AAAAA.
§63.9(g)	Additional CMS Notifications	No	Not required for operating parameter monitoring.
§63.9(h)(1)-(h)(3)	Notification of Compliance Status	Yes	
§63.9(h)(4)		No	
§63.9(h)(5)-(h)(6)	Notification of Compliance Status	Yes	
§63.9(i)	Adjustment of Deadlines	Yes	
§63.9(j)	Change in Previous Information	Yes	
§63.10(a)	Recordkeeping/Reporting General Requirements	Yes	See §§63.7131 through 63.7133.
§63.10(b)(1)-(b)(2)(xii)	Records	Yes	
§63.10(b)(2)(xiii)	Records for Relative Accuracy Test	No	
§63.10(b)(2)(xiv)	Records for Notification	Yes	

§63.10(b)(3)	Applicability Determinations	Yes	
§63.10(c)	Additional CMS Recordkeeping	No	See §63.7132.
§63.10(d)(1)	General Reporting Requirements	Yes	
§63.10(d)(2)	Performance Test Results	Yes	
§63.10(d)(3)	Opacity or VE Observations	Yes	For the periodic monitoring requirements in Table 6 to subpart AAAAA, report according to §63.10(d)(3) only if VE observed and subsequent visual opacity test is required.
§63.10(d)(4)	Progress Reports	Yes	
§63.10(d)(5)	Startup, Shutdown, Malfunction Reports	Yes	
§63.10(e)	Additional CMS Reports	No	See specific requirements in subpart AAAAA, see §63.7131.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes	
§63.11(a)-(b)	Control Device Requirements	No	Flares not applicable.
§63.12(a)-(c)	State Authority and Delegations	Yes	
§63.13(a)-(c)	State/Regional Addresses	Yes	
§63.14(a)-(b)	Incorporation by Reference	No	
§63.15(a)-(b)	Availability of Information	Yes	

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Arkansas Lime Company, P. O. Box 2356, Batesville, AR, 72503, on this 16th day of March, 2015.



Cynthia Hook, ASIII, Air Division