ADEQ

A R K A N S A S
Department of Environmental Quality

JAN - 8 2018

Steven Srebalus, EHS Manager
3M Company - 3M Industrial Mineral Products Division
P.O. Box 165860
Little Rock, AR 72216

Dear Mr. Srebalus:

The enclosed Permit No. 0039-AOP-R14 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 5/31/2017.

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. 0039-AOP-R14 for the construction and operation of equipment at 3M Company - 3M Industrial Mineral Products Division shall 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,

Stuart Spencer
Associate Director, Office of Air Quality

Enclosure: Final Permit

ADEQ
OPERATING
AIR PERMIT

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

Permit No. : 0039-AOP-R14

IS ISSUED TO:

3M Company - 3M Industrial Mineral Products Division
Highway 365 and Walters Drive
Little Rock, AR 72216
Pulaski County
AFIN: 60-00003

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

December 11, 2015 AND December 10, 2020

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

Signed:

Stuart Spencer
Associate Director, Office of Air Quality

JAN - 8 2018

Date

Table of Contents

List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_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

SECTION I: FACILITY INFORMATION

PERMITTEE:	3M Company - 3M Industrial Mineral Products Division
AFIN:	60-00003
PERMIT NUMBER:	0039-AOP-R14
FACILITY ADDRESS:	Highway 365 and Walters Drive Little Rock, AR 72216
MAILING ADDRESS:	P.O. Box 165860 Little Rock, AR 72216
COUNTY:	Pulaski County
CONTACT NAME:	Steven Srebalus
CONTACT POSITION:	EHS Manager
TELEPHONE NUMBER:	(501) 490-8731
REVIEWING ENGINEER:	Christopher Riley
UTM North South (Y):	Zone 15: 3840897.89 m
UTM East West (X):	Zone 15: 569687.29 m

SECTION II: INTRODUCTION

Summary of Permit Activity

3M Company - 3M Industrial Mineral Products Division (60-00003) operates a facility located at Highway 365 and Walters Drive, Little Rock, AR 72216. This facility has submitted a Minor Modification and a Significant Modification. The modifications are:

- Correct NOx emissions for SN-108 (Dryer No. 1 Baghouse), 111 (No. 1 Kiln Baghouse), 112 (No. 2 Kiln Baghouse), 113 (No. 3 Kiln Baghouse), 114 (No. 2 Mixer Scrubber), 116 (Dryer No. 2 Baghouse), 128 (No. 3 Mixer Scrubber), and 129 (No. 1 Mixer Scrubber)
- To allow the use of GEST as a dust suppressant (in addition to the DREW dust suppressant already in place)
  Permitted emission increases are: 8.4 tpy vinyl acetate, 78.7 tpy NO_X.

Process Description

Arch Street

3M mines, crushes, screens, transfers, and loads nepheline syenite mineral at the Arch Street Quarry for further processing into granules by the roofing industry. The mineral is quarried, loaded into trucks, and delivered to primary crushers on-site. After screening and further crushing, the material is loaded to railcars and shipped to the 3M roofing granule facility located at College Station. Particulate emission sources are located throughout the Arch Street Quarry. The primary method of controlling emissions, if necessary, is by water spray with or without surfactant additives at various points throughout the process. Baghouse control may also be used to control particulate emissions from the tertiary crushing and screening circuit (SN-01) when the wet suppression system is not being used, if necessary.

College Station

At the College Station facility, 3M receives, crushes, screens, and transfers nepheline syenite in the production of roofing granules. Raw nepheline syenite is brought into the plant by train car, unloaded, and placed into a raw material stockpile. The nepheline syenite is then screened, crushed, and dried. The dried material is transferred to the crushing and screening plant, where the desired size is achieved by further crushing and screening operations. The material leaving the crushing and screening lines is considered to be in “raw granule form.” The raw granules are either sent to the coloring plant or stored for future use.

The first stage in the coloring process is mixing, where the raw granules are mixed with pigments. The pigment-coated granules are fired in kilns and then cooled in coolers. In the coolers, water, neutralizers, and oil are added to cool the granules and prevent dusting. These finished granules undergo a final product screening prior to the finished granule storage/loadout processes. Finished granules are fed to product bins and silos prior to shipping in tank car or truck. Waste mineral and granules are sold as aggregate, shipped away in truck or tank cars, or are stockpiled on site for future use.

Particulate emissions are generated throughout the process and are controlled by baghouses, scrubbers, water spray suppression, and other wet suppression methods including oil coating and foam dust suppression.

Emissions

Emissions from the facility result primarily from the quarrying and processing of stone or fuel combustion at the dryers, kilns, and sodium silicate plant boiler. Various pollutants emitted include particulate matter (PM), particulate matter under 10 microns (PM_{10}), carbon monoxide (CO), nitrogen oxides (NO_X), sulfur dioxide (SO_2), and volatile organic compounds (VOC).

Test data obtained by 3M shows that the rock crushed and used in granule production contains small quantities of naturally occurring elemental compounds regulated by the Department as air emissions of hazardous air pollutants or HAPs pursuant to state regulation, and lead, pursuant to federal regulation. The naturally occurring compounds, regulated by the Department as HAPs, are combinations of naturally occurring elements, which include the elements arsenic, beryllium, cadmium, and manganese.

Other HAPs emitted are a result of the use of coloring pigments at various sources throughout the facility. HAPs are also emitted from burning used oil. These HAPs are arsenic, lead, chromium, manganese, PCB, and cobalt compounds. HAPs and VOCs are emitted from the slate oil and adhesion promoter that is applied at the cooler scrubbers (SN-115, SN-154 and SN-155).

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective March 14, 2016
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective March 14, 2016
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective March 14, 2016

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	134.15	589.3
		PM_{10}	90.68	354.2
		SO_2	1.86	7.9
		VOC	51.26	44.64
		CO	155.53	324.2
		NO_X	34.00	139.5
HAPs		Antimony	1.3E-03	6.0E-04
		Arsenic	4.7E-04	2.0E-03
		Benzene*	5.4E-04	2.4E-03
		Beryllium	2.0E-04	1.0E-03
		Cadmium	4.0E-04	2.0E-03
		Chromium	8.0E-01	2.61
		Cobalt	1.9E-02	8.3E-02
		Dichlorobenzene*	3.2E-04	1.4E-03
		Formaldehyde*	2.0E-02	8.5E-02
		Hexane*	1.8E-01	2.06
		Lead	4.1E-03	1.8E-02
		Manganese	2.3E-01	9.8E-01
		Mercury	2.0E-04	9.0E-04
		Methanol*	8.16	9.50
		Nickel	1.7E-03	7.1E-03
		POM*	1.2E-02	4.9E-02
		Selenium	1.1E-04	5.0E-04
		Toluene*	1.2	5.1
		Vinyl Acetate*	1.92	8.4

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

SECTION III: PERMIT HISTORY

Arch Street

On March 23, 1979, 3M was issued Air Permit #0542-A allowing operation of a quarry at 65th and Arch Street.

On August 31, 1993, Permit #0542-AR-1 was issued which served to include emissions sources not previously addressed, and to quantify all emission sources to be consistent with the current operations at that time.

College Station

Air Permit #0039-A was assigned to the 3M, College Station Plant, on November 20, 1970, as the initial permit for the roofing granule production facility.

Air Permit #0175-A was assigned to 3M, College Station, on December 1, 1973, for the operation of an Aerodyne Model 18,000 SY cyclone to control emissions from a mixer and rotary kiln operation.

Permit #0039-AR-1 was issued on May 23, 1980, to install additional baghouse control devices.

Air Permit #0613-A was assigned to 3M on May 23, 1980, allowing instillation of a portable rotary dryer associated with a Cedarapids 15,000 CFM baghouse. This equipment is no longer on-site.

Permit #0039-AR-2 was issued October 20, 1981, in order to evaluate particulate emissions and perform dispersion modeling of reported emissions to ensure that the National Ambient Air Quality Standards (NAAQS) were not threatened.

Permit #0039-AR-3 was issued on August 3, 1983, allowing operation of a portable crusher, associated equipment, and two baghouses. The equipment is no longer on-site.

Permit #0039-AR-4 was issued on November 18, 1987, allowing four new baghouses to control emissions from existing colorizing mixers and kilns at the granule plant.

Permit #0039-AR-5 was issued on August 23, 1991, to allow replacement of an existing cyclone and an ESP with baghouses at the #1 kiln area.

Permit #0039-AOP-R0, issued February 26, 2002, was the initial Title V Operating Air Permit for both the College Station and Arch Street facilities. The permit combined both Minor Source Air Permits No. 0542-AR-1 (Arch Street) and No. 0039-AR-5 (College Station). Several modification requests were submitted prior to the issuance of the initial operating permit. The notable changes that occurred during this permitting action were the inclusion of HAP emission estimates and various new sources associated with new material handling systems (SN-59, 60,

61, 62, 211, 212, 213, 302, 303, 310, and 106A). It is also allowed by this permit the use of foam type dust suppressant in place of water suppression in some areas of either the Arch Street or College Station units. Source numbers (SN) in the Title V permit do not necessarily coincide with the source numbers of previous permits.

Permit #0039-AOP-R1, issued May 1, 2003, incorporated changes resulting from a minor modification application which was approved on November 27, 2002. The approved minor-mod allowed the permittee the use of alternate pigmenting materials at the College Station Plant which contain compounds of cobalt. Cobalt compounds were permitted from various emission sources located at and downstream from the coloring operations.

Permit #0039-AOP-R2, issued May 17, 2004, incorporated changes resulting from a minor modification application which was approved on October 28, 2003. The minor mod approval allowed the permittee to install duct work to route emissions from the bucket elevators (SN-121, 122, and 123) and Rotex Screen sources (SN-189, 131, 132, 133, 134, and 135) to the Cooler Scrubbers (SN-115, 154, and 155).

Permit #0039-AOP-R3, issued March 25, 2005, incorporated changes allowed by a minor modification approved by the Department on August 26, 2004. The minor-mod approval allowed the permittee to install and operate a classifier and closed loop cyclone tying into existing bins, Bins 4 and 6. Also, the permittee was allowed to install and operate an additional bin, Bin 6A. This new and existing equipment is controlled using a new 10,000 cfm baghouse which is located atop Bin 4 (SN-105, Filler Baghouse). This new larger baghouse eliminates the need for the former source SN-106A (Loadout Dust System) which was removed from service.

Permit #0039-AOP-R4, issued on August 24, 2005, incorporated changes allowed by a minor modification approved by the Department on April 29, 2005. The minor-mod approval allowed the permittee to install and operate an Automated Mixing System associated with Building 8 pigment operations. Emissions from this operation was controlled and vented through the new 10,000 cfm Automated Mixing System Baghouse (SN-311).

Permit #0039-AOP-R5, issued on March 29, 2006, allowed the facility to combust used oil at SN-108, SN-111, SN-112, SN-113, and SN-116. Also, emission rates from these sources were revised using the most updated USEPA AP-42 emissions factors. Emissions changes included decreases of PM/PM_{10} by 1.71 tons per year (tpy), NO_X by 43.36 tpy, increases of SO_2 by 7.25 tpy, VOC by 1.99 tpy, CO by 50.5 tpy, lead by 0.4496 tpy, and increases of (miscellaneous HAPs) chromium, arsenic, cadmium, and PCB by 0.1757 tpy, 0.05 tpy, 0.05 tpy, and 0.02 tpy respectively.

Permit #0039-AOP-R6 was a minor modification issued on August 1, 2006. This minor modification permit authorized the facility to increase the airflow for the Dryer No. 1 Baghouse (SN-108) from 26,896 scfm to 44,832 scfm. The proposed change resulted in a permitted emission increase of 13.5 ton per year (tpy) of PM/PM_{10}.

Permit #0039-AOP-R7 was a Title V permit renewal issued May 8, 2007; it updated emission factors, corrected moisture content for storage pile emissions, and corrected emission calculations for SN-55. The proposed changes resulted in a permitted emissions increase of 0.0053 ton per year (tpy) of PCB and various permitted emissions decreases.

Permit #0039-AOP-R8 was a minor modification issued on December 17, 2008. This minor modification permit authorized the facility to replace three baghouses (SN-150, SN-151, and SN-152) with one large baghouse (SN-214). The proposed change resulted in a permitted emission decrease of 2.8 ton per year (tpy) of PM/PM_{10}.

Permit 0039-AOP-R9 was a minor modification issued on July 2, 2009. This minor modification permit authorized the facility to add the following equipment: Conveyors 27 and 28 (SN-215 and SN-216), Truck Loading at the Coloring Batch Mixer (FS-312), Truck Loading at the Copper Dust Loadout (FS-313) and to replace the existing baghouses on No. 1 Mixer (SN-129), No. 2 Mixer (SN-114) and No. 3 Mixer (SN-128) with water scrubbers. Multiple sources have been modified to reflect controls in place and/or use throughput data and emission factors. The permitted emission decreases were: 34.3 tpy of PM and 98.2 tpy of PM_{10}

Permit 0039-AOP-R10 was a modification issued on May 7, 2010. This modification authorized the facility to add emissions from the slate oil, adhesion promoter, and new DREW process (SN-115, SN-154 and SN-155). Historically, these emissions were classified as insignificant and not quantified. The permitted emission increases are: 38.0 tpy of VOC, 9.50 tpy of Methanol and 5.07 tpy of Toluene.

Permit 0039-AOP-R11 was a modification issued on April 4, 2011. This modification authorized an increase to the permitted emission rates for the Waste & Raw Granule Baghouse (SN-153). The following corrections were included to reflect the current facility operating process. These changes were included in previous applications but are not reflected in the permit. Removed SN-109 and SN-110. Removed SN-121 through SN-123 and SN-131 through SN-135 since emissions were rerouted to SN-115, SN-154, and SN-155. SN-116 and SN-195 corrected emissions typo. SN-199 through SN-210 changed emission factors. The permitted emission decreases are 177.0 tpy of PM, 114.8 tpy of PM_{10} and the increases are 0.3 tpy VOC, 3.7 tpy CO, and 4.4 tpy NO_x.

Permit 0039-AOP-R12 was a renewal issued on December 11, 2015. The modifications are:

- Replacement of SN-115 (No. 1 Cooler Scrubber), SN-154 (No. 2 Cooler Scrubber), and SN-155 (No. 3 Cooler Scrubber)
- Removing SN-1(Tertiary Crusher Baghouse), SN-02 (Transfer Tower), 24 (Alternate Truck Loadout), 60 (Parallel Crusher), 61 (No. 45 Conveyor), 62 (No. 46 Conveyor), 109 (JB Conveyor), 110 (No. 7 Filler Tank [BH]), 120 (Sodium Silicate Bin), 125 (Waste conveyor), 130 (Sodium Silicate Plant Boiler), 150 (IC Circuit – Silo No. 1 [BH]), 151 (IC Circuit – Silo No. 2 [BH]), 152 (IC Circuit – Silo No. 3 [BH]), 176 (Conveyor No. 31A [Silicate Plant]), 185 (Pugmill), 191 (Bucket Elv. No. 27 [Silicate Plt.]), 304

(Traincar Unloading [Silica]), 305 (Truck Loading at Coloring Pugmill), and 312 (Truck Loading Color Batch Mixer) from the permit

- Addition of SN-441 (Back-up Screen Undersize Bin) SN-442 (Feeder for Conveyor 24) and SN-443 (Primary Screen Undersize Bin)
- Addition of SN-444 (Gasoline tank [arch] 550 gal) and SN-445 (Gasoline tank [college] 270 gal) as well as NESHAP 6C conditions
- Updated Emission Factors and Calculations
- Emission changes this revision: +81.28 tpy Total PM, +17.75 tpy PM_{10}, -53.4 tpy SO_2, +0.33 tpy VOC, +187.2 tpy CO, -62.5 tpy NO_X, -0.082 tpy Lead, +1.32 tpy Chromium, +0.92 Manganese, -0.147 tpy Cobalt, -0.008 tpy Arsenic, -0.008tpy Cadmium, -0.009 tpy Beryllium, -5.067 tpy Toluene, +0.0006 tpy Antimony, +0.0024 tpy Benzene, +0.0014tpy Dichlorobenzene, +0.085 tpy Formaldehyde, +2.06 tpy Hexane, +0.0009 Mercury, +0.0071 tpy Nickel, +0.049 tpy POM, and +0.0005 tpy Selenium

Permit 0039-AOP-R13 was issued December 30, 2016. This permit was a Minor Modification and a Significant Modification. The modifications were:

- Correct emissions for SN-115, 154, and 155 (No. 1, 2, 3 Cooler Scrubbers)
- Remove the hours of operation limit for SN-155 (cooler scrubber) it now operates 8760 hours per year
- Add SN-446 (emergency engine) to the permit
- The permitted emissions increases are: 5.07 tpy Toluene, 0.01 tpy of PM, PM_{10}, VOC, SO_2, and combustion HAPs, 19.93 tpy CO, and 0.44 tpy NO_X

SECTION IV: SPECIFIC CONDITIONS

SN-03, 07, 09, 31, 33
Crushers – Arch St.

Source Description

SN	Description
03	Traylor Crusher
07	Norberg Crusher
09	Cone Crusher
31*	Tertiary Crusher
33*	Tertiary Crusher

*Sources are either inside or underground and therefore have no opacity requirement

The five crushers listed above are each operated at the Arch Street Quarry for the purpose of size reduction of material. The crusher emissions are controlled, if necessary, by either wet suppression (with or without additives), foam dust suppressant, or a combination of each at various points in the process.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10}. The permittee shall demonstrate compliance with Specific Conditions 5 and 6. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

2. The permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM. The permittee shall demonstrate compliance with Specific Conditions 5 and 6. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

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

SN	Limit	Regulatory Citation
07, 09	20%	§19.503
03	40%	§19.503

4. Weekly observations of the opacity from SN-03, 07, 09 shall be conducted by personnel familiar with the facility's visible emissions. If visible emissions in excess of the

permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated monthly, kept on site, and made available to Department personnel upon request.

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

5. Throughout the Arch Street quarry, the permittee shall utilize, as necessary, wet suppression, with or without additives, foam or water on equipment and wet suppression with or without additives on haul roads, as necessary, to prevent excess emissions. . [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

6. The permittee shall not exceed a throughput of 3,000,000 tons of Nephline Syenite Rock at the Arch Street unit per rolling 12 month period. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

7. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #6. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7.

SN-04, 05, 10-16, 19, 20, 28, 29, and 59
Conveyor Transfer Points – Arch St.

Source Description

SN	Description
04	Traylor Crusher Surge Bin
05	No. 20 Conveyor
10	No. 1 Conveyor
11	Transfer Station
12	Load Out Bin
13	Load Out Bin
14	No. 3 Conveyor
15	No. 3A Conveyor
16	A.C. Crusher Surge Bin
19	Feeders
20	No. 4 Conveyor
28	No. 5 Conveyor
29	No. 6 Conveyor
59	Conveyor from AC Crusher

Each of the sources listed above is a point of transfer from one conveyer to another, to a bin, or to a storage pile at the Arch Street Plant. Emissions from conveyers are controlled as necessary by either wet suppression, foam dust suppressant, or a combination of each at various points in the process.

Specific Conditions

8. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance with this condition shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

9. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance with this condition shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

10. The permittee shall not exceed the opacity limits in the following table. Compliance shall be demonstrated by compliance with Specific Condition 5.

SN	Limit	Regulatory Citation
12, 13, 16, 19, 20, 28, 29, 59	20%	§19.503
4, 5, 10, 11, 14, 15	40%	§19.503

SN-06, 08, 30, and 32
Screens – Arch St.

Source Description

SN	Description
06	Primary Screen
08	Primary Screen
30	Secondary Screen
32	Secondary Screen

The four screens listed in the table above are each operated at the Arch Street Plant for the purpose of size separation of crushed material. These screen emissions are controlled by either wet suppression, foam dust suppressant, or a combination of each at various points in the process.

Specific Conditions

11. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

12. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

13. The permittee shall not exceed an opacity of 40% from any screen (SN-06, 08, 30, 32) at Arch Street. Compliance shall be demonstrated by Specific Condition 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

SN-18 and 58
Material Loading – Arch St.

Source Description

Material is loaded into trucks at the Quarry, and after being resized, it is loaded to rail car or trucks and approximately 80% is shipped to College Station.

Specific Conditions

14. For SN-18 and SN-58, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

15. For SN-18 and SN-58, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

16. The permittee shall not exceed an opacity of 40% from SN-18 or SN-58. Compliance shall be demonstrated by Specific Condition 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

SN-17 and 57
Stock Piles – Arch St.

Source Description

These two stockpiles are each located at the Arch Street Plant for the purpose of storage of crushed material.

Specific Conditions

17. For SN-17 and SN-57, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

18. For SN-17 and SN-57, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-50 through SN-55
Miscellaneous Quarrying Activities – Arch St.

Source Description

SN	Description
50	Overburden Removal
51	Drilling
52	Blasting
53	Explosives Detonation
54	Quarry Truck Loading
55	Quarry Truck Traffic

At the Arch Street Quarry, 3M uses typical methods for dislodging the mineral. Drilling and blasting are used to free material, each of which results in particulate emissions. Detonation of the explosives results in the emissions of CO, SO_X, and NO_X. After blasting, the broken mineral must be removed for further processing. At times, soils and weathered stone are removed from the upper surfaces of the quarry prior to blasting for the roofing granule mineral itself. This is recognized as overburden removal.

Quarry truck traffic is another source of particulate emissions. These emissions are controlled using wet suppression on haul roads as necessary.

Specific Conditions

19. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for $PM_{10,}$ CO, NO_X, SO_2, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

20. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

21. The permittee shall not exceed an opacity of 40% from any miscellaneous quarrying activity at Arch Street. Compliance shall be demonstrated by Specific Condition 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

SN-101-106, 108, 111-113, 116-119, 124, 153, 211, 214, and 311
Sources Controlled With Baghouses – College Station

Source Description

SN	Description	Nameplate Maximum Capacity of the Baghouse (SCFM)
101	IC - Baghouse	30,000
102	C & S Line #1 - Baghouse	24,738
103	C & S Line #2 - Baghouse	24,738
104	C & S Line #3 - Baghouse	30,836
105	Filler - Baghouse	10,000
106	Product Tripper and Storage - Baghouse	15,000
108	Dryer No. 1 - Baghouse	44,832
111	No. 1 Kiln - Baghouse	24,805
112	No. 2 Kiln - Baghouse	24,805
113	No. 3 Kiln - Baghouse	24,805
*116	Dryer No. 2 - Baghouse	24,844
117	No. 1 Clay Tank - Baghouse	1,500
118	No. 2 Clay Tank - Baghouse	1,500
119	No. 3 Clay Tank - Baghouse	1,500
124	Coloring Feed End - Baghouse	15,213
153	Waste & Raw Granule - Baghouse	
211	Covered Raw Granule Stockpile - Baghouse	8,000
214	Silo - Baghouse	25,000
311	Automated Mixing System - Baghouse	10,000

*Equipment from SN-116, Bin 35 and Conveyor 27D, will be removed from service.

The sources listed in the table above represent baghouse control devices used throughout the College Station unit to control particulate emissions. When properly maintained and operated at the manufacturer's recommended specifications, baghouse control devices can achieve particulate removal at or above 99%.

Each of the baghouses listed in the table above has the potential to emit particulates resulting from the granule production. However, two dryers and three kilns also exhaust through five baghouses emitting other criteria pollutants resulting from combustion of fuels. The natural gas usage is based on the maximum capacity of the dryers and kilns, but diesel and used oil combined usage may not exceed 2.5 million gallons per twelve consecutive months to ensure compliance with annual emission rates.

Specific Conditions

22. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10}, SO_2, VOC, CO, NO_X, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 27, 29, and 30. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

23. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 27 and 31. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

24. The permittee shall not exceed opacity of 5% from any baghouse at College Station as measured by EPA Reference Method 9. [Regulation 18, §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

25. During periods of smoking due to re-run of oily material or diesel fuel combustion, SN-111, 112, 113, and 116 shall not exceed 20% opacity as measured by EPA Reference Method 9. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

26. Observations of the opacity from each baghouse at SN-101-106, 108, 111, 112, 113, 116-119, 124, 153, 211, 214, 311 shall be conducted by personnel familiar with the facility's visible emissions once every week. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
    a. The date and time of the observation.
    b. If visible emissions which appeared to be above the permitted limit were detected.
    c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
    d. The name of the person conducting the opacity observations.

    [Regulation 19, §19.503, Regulation 18, §18.501, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

27. The permittee shall not consume more than 2,500,000 gallons of combined diesel/used oil per twelve consecutive months at the dryers and kilns (SN-108, 111 through 113, and

116). [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]

28. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition 27. Records shall be updated by the 15th day following the previous month. Records shall be accompanied with a twelve month rolling total. Records shall be kept on-site and made available to Department personnel upon request. Records shall be submitted in accordance with General Provision 7. [Regulation 19, §19.705 and 40 CFR Part 52, Subpart E]

29. The permittee shall not consume diesel with fuel bound sulfur content greater than 0.3% by weight. [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]

30. The permittee shall not consume used oil with fuel bound sulfur content greater than 0.33% by weight. [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]

31. The permittee shall not consume used oil which exceed the levels listed in the table below, and the used oil shall meet the criteria of 40 C.F.R. §279.11. [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]

Constituent	Maximum Allowable Level (By Weight)
Arsenic	0.5 ppm maximum
Cadmium	0.5 ppm maximum
Chromium	10 ppm maximum
Lead	50 ppm maximum
PCB	2 ppm maximum

32. The permittee shall maintain monthly records to demonstrate compliance with Specific Conditions 29, 30, and 31. Records shall be in the form of supplier certification. Records shall be updated with each delivery of fuel. Records shall be kept on-site for at least one year. Records shall be made available to Department personnel upon request. Records shall be submitted in accordance with General Provision 7. [Regulation 19, §19.705 and 40 CFR Part 52, Subpart E]

SN-115, 154, and 155
No. 1, 2, and 3 Coolers Controlled With Scrubbers – College Station

Source Description

SN	Description
115	No. 1 Cooler - Scrubber
154	No. 2 Cooler - Scrubber
155	No. 3 Cooler - Scrubber

Specific Conditions

33. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and VOC. Compliance with this condition will be demonstrated by using the total throughput of raw granules and application rate of the slate oil, adhesion promoters, and DREW or GEST. Compliance shall be demonstrated by compliance with Specific Conditions 35 and 36. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

34. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, methanol, toluene, or vinyl acetate. Compliance with this condition will be demonstrated by using the total throughput of raw granules and application rate of the slate oil, adhesion promoters, and DREW or GEST. Compliance shall be demonstrated by compliance with Specific Conditions 35 and 36. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

35. Weekly observations of the opacity from SN-115, 154, and 155 shall be conducted by a person certified as a EPA Method 9 reader. If visible emissions in excess of 20% opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
    a. The date and time of the observation.
    b. If visible emissions which appeared to be above the permitted limit were detected.
    c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
    d. The name of the person conducting the opacity observations.

    [Regulation 19, §19.503, Regulation 18, §18.501, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

36. The permittee shall not exceed 4.8 pounds per hour total particulate matter during operation at each of the sources listed in the table above. Compliance was demonstrated by successful stack testing completed in March 2005. [Regulation 19, §19.705, Regulation 18, §18.1004, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6]

37. The permittee shall maintain a minimum liquid flow at each scrubber listed in the table above of 70 gallons per minute, or the minimum determined during the most recent successful performance testing. The permittee shall install a flow meter at each scrubber and record liquid flow once daily. Records shall be updated daily, kept on-site, and made available to Department personnel upon request. [Regulation 18, §18.1004, 40 CFR Part 64, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

38. The permittee shall maintain monthly records demonstrating compliance with the annual bubbled limits of VOC and HAP emissions in Specific Condition 33 and 34. Records shall be updated by the 15th day following the previous month and a twelve month rolling total shall be kept. Records shall be made available to Department personnel upon request. The records shall be submitted to the Department in accordance with General Provision 7. [Regulation 19, §19.705, Regulation 18, §18.1004, and 40 CFR Part 52, Subpart E]

SN-114, 128, and 129
No. 1, 2, and 3 Mixers – College Station

Source Description

SN	Description	Nameplate Maximum Capacity (SCFM)
114	No. 2 Mixer Scrubber	9,925
128	No. 3 Mixer Scrubber	9,925
129	No. 1 Mixer Scrubber	9,925

Specific Conditions

39. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10}, SO_2, VOC, CO, NO_X, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 41 and 42. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

40. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 41 and 42. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

41. Weekly observations of the opacity from SN-114, 128, and 129 shall be conducted by a person certified as a EPA Method 9 reader. If visible emissions in excess of 20% opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
    a. The date and time of the observation.
    b. If visible emissions which appeared to be above the permitted limit were detected.
    c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
    d. The name of the person conducting the opacity observations.

    [Regulation 19, §19.503, Regulation 18, §18.501, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

42. The permittee shall maintain a minimum liquid flow at each scrubber listed in the table above of 100 gallons per minute, or the minimum determined during the most recent successful performance testing. The permittee shall install a flow meter at each scrubber and record liquid flow once daily. Records shall be updated daily, kept on-site, and made available to Department personnel upon request. [Regulation 18, §18.1004, 40 CFR Part 64, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-107, 156-175, 183-184, 212, 213, 215, 216, 310
Conveyor Transfer Points – College Station

Source Description

SN	Description
107*	Feeders at Raw Stockpile
156	Conveyer No. 1
157	Conveyer No. 2
158*	Transfer Conveyer No. 20
159*	Transfer Conveyer No. 21
160*	Transfer Conveyer No. 22
161*	Transfer Conveyer No. 23
162*	Transfer Conveyer No. 24
163*	Transfer Conveyer No. 25
164*	Transfer Conveyer No. 33
165*	Transfer Conveyer No. 34
166*	Transfer Conveyer No. 35
167	Transfer Conveyer No. 36
168	Transfer Conveyer No. 37
169*	Transfer Conveyer No. 39
170*	Transfer Conveyer No. 40
171	Transfer Conveyer No. 41
172	Transfer Conveyer No. 42
173*	Conveyer No. 15
174*	Conveyer No. 16
175	Conveyer No. 31
183	Pugmill at Waste Silo #4
184	Pugmill at Waste Silo #4
212	Conveyer 43
213	Conveyer 44
215	Kiln Dust Conveyor No. 27
216	Transfer Conveyor No. 28
310	Truck /Railcar Loading Conveyer

*Sources are either inside or underground and therefore have no opacity requirement

Specific Conditions

43. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Condition 47. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

44. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

45. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 46. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Opacity Limit
167, 168, 171, 172, 184, 212, 213, 216	20%
156, 157, 175, 183, 215, 310	40%

46. The permittee shall utilize wet suppression with or without foam, water spray with or without surfactant additives, or other dust suppressant as the primary methods of controlling emissions when necessary. This shall be used for equipment and haul roads to prevent excess emissions throughout College Station Granule Plant. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

47. The permittee shall use water and/or non-hazardous chemical sprays as needed or other methods to minimize emissions from Conveyer No. 1 and Conveyer No. 2 (SN-156 & SN-157). [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

48. The permittee shall not operate in a manner such that fugitive emissions from Conveyer No. 1 and Conveyer No. 2 (SN-156 & SN-157) (such as operation of mobile equipment upon the storage pile) and haul roads would cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall use water sprays or other techniques as necessary to control fugitive emissions. [Regulation 18, §18.501 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

49. Weekly observations of the opacity from all sources listed in the Conveyor Transfer Point source description table shall be conducted by a person certified as a EPA Method 9 reader. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
    a. The date and time of the observation.
    b. If visible emissions which appeared to be above the permitted limit were detected.

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

[Regulation 19, §19.503, Regulation 18, §18.501, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-131-135
Screens – College Station

Source Description

SN	Description	Opacity Limit
131	Screen No. 25	40%
132	Screen No. 26	40%
133	Screen No. 29	40%
134	Screen No. 28	40%
135	Screen No. 27	40%

Specific Conditions

50. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

51. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

52. The permittee shall not exceed the opacity limits in table above from the building vent associated with the sources listed. Compliance with this condition will be demonstrated by Specific Condition 46. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-121-123 and 186-190
Elevators – College Station

Source Description

SN	Description
121	No. 21 Elevator
122	No. 22 Elevator
123	No. 23 Elevator
186	Bucket Elevator No. 18
187	Bucket Elevator No. 19
188	Bucket Elevator No. 20
189	Bucket Elevator No. 24
190	Bucket Elevator No. 25

Specific Conditions

53. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

54. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

55. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 46. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Opacity Limit
190	20%
121-123, 186-189	40%

SN-199-210, 303, 307, 308
Storage Bins and Stockpiles – College Station

Source Description

SN	Description
199*	Product Bin P1
200*	Product Bin P2
201*	Product Bin P3
202*	Product Bin P4
203*	Product Bin P5
204*	Product Bin P6
205*	Product Bin P7
206*	Product Bin P8
207*	Waste Bin 21
208*	Waste Bin 22
209*	Waste Bin 23
210*	Waste Bin 24
303	Pugmill Discharge Pile
307	Temporary Storage Stockpile
308	Raw Stockpile

*sources are either inside or underground and therefore have no opacity requirement

Specific Conditions

56. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

57. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

58. The permittee shall use water and/or non-hazardous chemical sprays as needed or other methods to minimize emissions from the Raw Stockpile (SN-308). [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

59. The permittee shall not operate in a manner such that fugitive emissions from the Raw Stockpile (SN-308) (such as operation of mobile equipment upon the Raw Stockpile) and haul roads would cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall use water

sprays or other techniques as necessary to control fugitive emissions. [Regulation 18, §18.501 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

60. Observations of the opacity from SN-303, 307, and 308 shall be conducted once every two weeks by a person trained, but not necessarily certified, as a EPA Method 9 reader. If visible emissions in excess of 5% opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.

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

[Regulation 19, §19.503, Regulation 18, §18.501, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-194, 195, 300-302, 306, and 313
Material Handling/Unloading and Vehicle Traffic – College Station

Source Description

SN	Description
194	Finished Granule Storage and Loading
195	Waste Granule Storage and Loading
300	Train Car Unload
301	Truck Loading at C & S Pugmill
302	Mineral Unloading at Pugmill Discharge Pile
306	Plant Vehicle Traffic including Waste Haul Off (Baghouse)
313	Truck Loading at Copper Dust Loadout

Specific Conditions

61. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

62. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Condition 46. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-111-113, 115, 121-123, 131-135, 154, 155, 158-172, 186-190, 194, 195, 199-210, and 311
Pigment Usage at Various Sources

Source Description

SN	Description
111	No. 1 Kiln - Baghouse
112	No. 2 Kiln - Baghouse
113	No. 3 Kiln - Baghouse
115	No. 1 Cooler - Scrubber
121	No. 21 Elevator
122	No. 22 Elevator
123	No. 23 Elevator
131	Screen No. 25
132	Screen No. 26
133	Screen No. 29
134	Screen No. 28
135	Screen No. 27
154	No. 2 Cooler - Scrubber
155	No. 3 Cooler - Scrubber
158*	Transfer Conveyer No. 20
159*	Transfer Conveyer No. 21
160*	Transfer Conveyer No. 22
161*	Transfer Conveyer No. 23
162*	Transfer Conveyer No. 24
163*	Transfer Conveyer No. 25
164*	Transfer Conveyer No. 33
165*	Transfer Conveyer No. 34
166*	Transfer Conveyer No. 35
167	Transfer Conveyer No. 36
168	Transfer Conveyer No. 37
169*	Transfer Conveyer No. 39
170*	Transfer Conveyer No. 40
171	Transfer Conveyer No. 41
172	Transfer Conveyer No. 42
186	Bucket Elevator No. 18
187	Bucket Elevator No. 19
188	Bucket Elevator No. 20
189	Bucket Elevator No. 24
190	Bucket Elevator No. 25
194	Finished Granule Storage/ Loading
195	Waste Granule Storage/ Loading
199*	Product Bin P1

SN	Description
200	Product Bin P2
201*	Product Bin P3
202*	Product Bin P4
203*	Product Bin P5
204*	Product Bin P6
205*	Product Bin P7
206*	Product Bin P8
207*	Waste Bin W21
208*	Waste Bin W22
209*	Waste Bin W23
210*	Waste Bin W24
311	Automated Mixing System Baghouse

*Sources are either inside or underground and therefore have no opacity requirement
Coloring pigments are added to granules at an intermediate stage during production. The pigments have a small weight fraction of HAPs and, therefore, impact air emissions at subsequent sources shown in the table above. The pigment HAPs have been accounted for these sources in Appendix A.

Specific Conditions

63. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM_{10}, lead, chromium, manganese, and cobalt compounds that result directly from coloring pigment usage at these sources. Compliance shall be demonstrated by compliance with particulate matter emission limits at these sources. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-444 and 445
Gasoline tanks

Source Description

SN	Description
444	Gasoline tank (arch) 500 gal
445	Gasoline tank (college) 200 gal

The gasoline tanks listed above are used to refuel motor vehicles at both locations. Both tanks are subject to NESHAP CCCCCC (6C).

Specific Conditions

64. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for VOC. Compliance shall be demonstrated by compliance with Specific Condition 69. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

65. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A. Compliance shall be demonstrated by compliance with Specific Condition 69. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

66. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 72. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Opacity Limit
444-445	5%

67. SN-444 (550-gallon Gasoline Tank) and SN-445 (270 gallon Gasoline Tank) are gasoline storage tanks at a gasoline dispensing facility at an area source of HAPs and thus an affected source under the definitions of 40 CFR §63 Subpart CCCCCC. Construction of SN-444 commenced on or before November 9, 2006, and the permittee met the applicability criteria in §63.11111 at the time they commenced operation, and thus SN-444 would be considered an existing affected source. [Regulation 19 §19.304 and 40 CFR Part §63.11110 and 63.11132, Subpart CCCCCC]

68. SN-444 and SN-445 started up before January 10, 2008 and thus must comply with the standards of 40 CFR §63 Subpart CCCCCC no later than January 10, 2008. [Regulation 19 §19.304 and 40 CFR Part §63.11113(a)(2) and §63.11111(b), Subpart CCCCCC]

69. The permittee shall have a monthly throughput of less than 10,000 gallons of gasoline at SN-444 and SN-445. [Regulation 19 §19.304 and 40 CFR Part §63.11111(b), Subpart CCCCCC]

70. The permittee shall, upon request by the Administrator, demonstrate that their monthly throughput at SN-444 and SN-445 is less than the 10,000-gallon threshold level. For SN-444 and SN-445 as an existing source, recordkeeping to document monthly throughput must begin on January 10, 2008. Records required under this condition shall be kept for a period of 5 years. Records must be made available within 24 hours of a request by the Administrator to document gasoline throughput at SN-P3-8. [Regulation 19 §19.304 and 40 CFR Part §63.11111(e), Subpart CCCCCC]

71. The permittee is not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput. [Regulation 19 §19.304 and 40 CFR Part §63.11116(b), Subpart CCCCCC]

72. The permittee must, at all times, 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. 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 §19.304 and 40 CFR Part §63.11115(a), Subpart CCCCCC]

73. The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [Regulation 19 §19.304 and 40 CFR Part §63.11116(a) and (d), Subpart CCCCCC]

    a. Minimize gasoline spills;
    b. Clean up spills as expeditiously as practicable;
    c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use. Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with this item;
    d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

SN-446

Emergency Engine

Source Description

SN	Description
446	Emergency Engine

This is an Emergency Engine that is subject to Subpart JJJJ. This engine is 112 HP and is considered a new engine based on date of construction (after January 1, 2009).

Specific Conditions

74. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10}, SO_2, VOC, CO, and NO_X. Compliance shall be demonstrated by compliance with Specific Condition 77. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

75. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM and Combustion HAPs. Compliance shall be demonstrated by compliance with Specific Condition 77. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

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

SN	Limit	Regulatory Citation
446	5%	§19.503

77. The permittee shall not operate the emergency generator SN-446 in excess of 500 total hours (emergency and non-emergency) per calendar year in order to demonstrate compliance with the annual emission rate limits. Emergency operation in excess of these hours may be allowable but shall be reported and will be evaluated in accordance with Reg.19.602 and other applicable regulations. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

78. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition 77. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The calendar year totals and each individual month's data shall be maintained on-site, made available to Department

personnel upon request, and submitted in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]

NESHAP Subpart ZZZZ Condition

79. Because the generator SN-446 is a new stationary RICE located at an area source of HAPs, the affected source must meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for this engine under Subpart ZZZZ. [Regulation 19 §19.304 and 40 CFR Part 63.6590(c)(1)]

Subpart JJJJ Conditions

80. The provisions of this subpart are applicable to owners and operators of stationary spark ignition (SI) internal combustion engines (ICE) that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP). For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. [Regulation 19 §19.304 and 40 CFR Part 60.4230(a)(4)(iv)].

81. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to Subpart JJJJ (as shown below) for their stationary SI ICE. [Regulation 19 §19.304 and 40 CFR Part 60.4233(e)]

Table 1 to Subpart JJJJ of Part 60—NO_X, CO, and VOC Emission Standards for Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards[a]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_X	CO	VOC[d]	NO_X	CO	VOC[d]
Emergency	25<HP<130	1/1/2009	[c]10	387	N/A	N/A	N/A	N/A

[a]Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O2.
[c]The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NOX + HC.
[d]For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

82. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 (as stated in Specific Condition 82 above) over the entire life of the engine. [Regulation 19 §19.304 and 40 CFR Part 60.4234]

83. After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233. [Regulation 19 §19.304 and 40 CFR Part 60.4236(a)]

84. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011. [Regulation 19 §19.304 and 40 CFR Part 60.4236(c)]

85. Starting on July 1, 2008, if the emergency stationary SI internal combustion engine that is less than or equal to 130 HP that was built on or after July 1, 2008, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. [Regulation 19 §19.304 and 40 CFR Part 60.4237(c)]

86. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of section 60.4243 [Regulation 19 §19.304 and 40 CFR Part 60.4243(b)(1) and (2)]

87. Emergency stationary ICE may be operated 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. 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year total. 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. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. [Regulation 19 §19.304 and 40 CFR Part 60.4243(d)]

88. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [Regulation 19 §19.304 and 40 CFR Part 60.4243(e)]

89. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [Regulation 19 §19.304 and 40 CFR Part 60.4243(f)]

90. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of section 60.424. [Regulation 19 §19.304 and 40 CFR Part 60.4244(a) through (f)]

91. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements. [Regulation 19 §19.304 and 40 CFR Part 60.4245(a) and (b)]

    1. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of section 60.4245 and as stated below:

        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 SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

        iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

    2. For all stationary SI emergency ICE less than or equal to 130 HP manufactured on or after July 1, 2008 that do not meet the standards applicable to non-emergency engines, the owner or operator of 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.

SECTION V: COMPLIANCE PLAN AND SCHEDULE

3M Company - 3M Industrial Mineral Products Division will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]

3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Department within sixty (60) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

4. The permittee must provide:

    a. Sampling ports adequate for applicable test methods;
    b. Safe sampling platforms;
    c. Safe access to sampling platforms; and
    d. Utilities for sampling and testing equipment.

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

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

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

SECTION VII: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and Regulation 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated September 30, 2011. [Reg.26.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Description	Category
12,000 Gallon Diesel Tank (College Station)	A-13
20,000 Gallon Oil Tank (College Station)	A-13
20,000 Gallon Oil Tank (College Station)	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]

2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and Reg.26.701(B)]

3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Reg.26.406]

4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and Reg.26.701(A)(2)]

5. The permittee must maintain the following records of monitoring information as required by this permit.

    a. The date, place as defined in this permit, and time of sampling or measurements;
    b. The date(s) analyses performed;
    c. The company or entity performing the analyses;
    d. The analytical techniques or methods used;
    e. The results of such analyses; and
    f. The operating conditions existing at the time of sampling or measurement.

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

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and Reg.26.701(C)(2)(b)]

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

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

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

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.

    a. For all upset conditions (as defined in Reg.19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:

        i. The facility name and location;
        ii. The process unit or emission source deviating from the permit limit;
        iii. The permit limit, including the identification of pollutants, from which deviation occurs;
        iv. The date and time the deviation started;
        v. The duration of the deviation;
        vi. The emissions during the deviation;
        vii. The probable cause of such deviations;

viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and
ix. The name of the person submitting the report.

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

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

[Reg.19.601, Reg.19.602, Reg.26.701(C)(3)(b), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Reg.26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 C.F.R. § 70.6(a)(6)(i) and Reg.26.701(F)(1)]

11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and Reg.26.701(F)(2)]

12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and Reg.26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Reg.26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and Reg.26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 C.F.R. § 70.6(a)(7) and Reg.26.701(G)]

16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and Reg.26.701(H)]

17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and Reg.26.701(I)(1)]

18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and Reg.26.702(A) and (B)]

19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in Reg.26.2. [40 C.F.R. § 70.6(c)(1) and Reg.26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Reg.26.703(B)]

    a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Reg.26.703(E)(3)]

a. The identification of each term or condition of the permit that is the basis of the certification;
b. The compliance status;
c. Whether compliance was continuous or intermittent;
d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
e. Such other facts as the Department may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.

22. Nothing in this permit will alter or affect the following: [Reg.26.704(C)]

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.

23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:

a. Such an extension does not violate a federal requirement;
b. The permittee demonstrates the need for the extension; and
c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

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

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:

a. Such a request does not violate a federal requirement;
b. Such a request is temporary in nature;
c. Such a request will not result in a condition of air pollution;
d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
f. The permittee maintains records of the dates and results of such temporary emissions/testing.

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

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:

a. The request does not violate a federal requirement;
b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

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

Appendix A- Emission Limits

3M Company - 3M Industrial Mineral Products Division
Permit #: 0039-AOP-R14
AFIN: 60-00003

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
1	Tertiary Crusher Baghouse	retired												
2	Transfer Tower	retired												
3	Traylor Primary Crusher	3.0E+00	1.2E+00											
4	Traylor Crusher Surge Bin	1.4E-01	4.6E-02											
5	No. 20 Conveyor	2.0E-01	6.4E-02											
6	Primary Screen	2.2E+00	7.4E-01											
7	A.C. Primary Crusher	6.0E+00	2.4E+00											
8	Primary Screen	2.6E+00	8.9E-01											
9	Cone Secondary Crusher	6.0E-01	2.4E-01											
10	No. 1 Crusher	6.2E-02	2.0E-02											
11	Transfer Station	2.8E-01	9.2E-02											
12	Load Out Bin	2.8E-01	9.2E-02											
13	Load Out Bin	2.8E-01	9.2E-02											
14	No. 3 Conveyor	3.3E-01	1.1E-01											
15	No. 3A Conveyor	2.9E-01	9.4E-02											
16	A.C. Crusher Surge Bin	2.8E-01	9.2E-02											
17	Tertiary Crushing Stock Pile	1.2E+00	1.2E+00											
18	Railroad Loadout	2.1E-01	6.9E-02											
19	Feeders	1.7E-01	5.5E-02											
20	No. 4 Conveyor	3.3E-02	1.1E-02											
28	No. 5	4.2E-02	1.4E-02											

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
	Conveyor													
29	No. 6 Conveyor	3.1E-01	1.0E-01											
30	Screen	1.3E+00	4.4E-01											
31	Crusher	1.2E+00	4.8E-01											
32	Screen	1.3E+00	4.4E-01											
33	Crusher	1.2E+00	4.8E-01											
50	Overburden Removal	1.5E+00	1.5E+00											
51	Drilling	1.3E-01	1.3E-01											
52	Blasting	1.0E-01	5.2E-02											
53	Blasting Explosives (ANFO)	0	0	1.4E+01	1.6E+00	0	5.4E+01							
54	Quarry Truck Loading	1.6E-01	1.6E-01											
55	Quarry Truck Traffic	3.8E+01	1.1E+01											
57	Emergency Stockpile	1.3E+00	1.3E+00											
58	Emergency Railroad Loadout	2.2E-01	7.4E-02											
59	Conveyor from A.C. Crusher	2.1E-01	6.9E-02											
101	Dryer Feed End (BH)	2.5E+00	2.5E+00											
102	C&S Line #1 (BH)	2.4E+00	2.4E+00											
103	C&S Line #2 (BH)	2.4E+00	2.4E+00											
104	C&S Line #3 (BH)	2.7E+00	2.7E+00											
105	Filler Screen Baghouse	1.0E+00	1.0E+00											
106	Product & Tripper Flr. (BH)	1.0E+00	1.0E+00											
107	Feeders	7.7E-02	2.5E-02											

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
108	Dryer No. 1 Baghouse	5.8E+00	5.8E+00	6.9	4.1E-02	3.8E-01	5.8E+00	6.4E-04	9.3E-02	3.5E-02	2.9E-03	7.2E-05	6.2E-05	3.1E-05
111	No. 1 Kiln Baghouse	3.2E+00	3.2E+00	2.6	3.2E-02	2.9E-01	4.4E+00	3.5E-04	5.1E-02	1.9E-02	1.6E-03	4.0E-05	3.5E-05	1.7E-05
112	No. 2 Kiln Baghouse	3.2E+00	3.2E+00	2.6	3.2E-02	2.9E-01	4.4E+00	3.5E-04	5.1E-02	1.9E-02	1.6E-03	4.0E-05	3.5E-05	1.7E-05
113	No. 3 Kiln Baghouse	3.2E+00	3.2E+00	2.6	3.2E-02	2.9E-01	4.4E+00	3.5E-04	5.1E-02	1.9E-02	1.6E-03	4.0E-05	3.5E-05	1.7E-05
114	No. 2 Mixer (Scrubber)	1.3E+00	1.3E+00	0.1	5.9E-04	1.3E-02	8.2E-02	1.4E-04	2.1E-02	7.8E-03	6.5E-04	1.6E-05	1.4E-05	6.9E-06
115	No. 1 Cooler (Scrubber)	4.8E+00	4.8E+00	0	0	1.1E+01	0	5.3E-04	7.8E-02	2.9E-02	2.5E-03	6.1E-05	5.2E-05	2.6E-05
116	Dryer No. 2 Baghouse	3.2E+00	3.2E+00	2.9	1.8E-02	1.6E-01	2.5E+00	3.5E-04	5.1E-02	1.9E-02	1.6E-03	4.0E-05	3.5E-05	1.7E-05
117	No. 1 Clay Tank Baghouse	1.9E-04	9.6E-04											
118	No. 2 Clay Tank Baghouse	1.9E-04	9.6E-04											
119	No. 3 Clay Tank Baghouse	1.9E-04	9.6E-04											
121	No. 21 Elevator	Emissions are routed and controlled by SN-115, SN-154, SN-155												
122	No. 22 Elevator	Emissions are routed and controlled by SN-115, SN-154, SN-155												
123	No. 23 Elevator	Emissions are routed												

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
		and controlled by SN-115, SN-154, SN-155												
124	Coloring Feed End Baghouse	1.3E+00	1.3E+00											
128	No. 3 Mixer (Scrubber)	1.3E+00	1.3E+00	0.1	5.9E-04	1.3E-02	8.2E-02	1.4E-04	2.1E-02	7.8E-03	6.5E-04	1.6E-05	1.4E-05	6.9E-06
129	No. 1 Mixer (Scrubber)	1.3E+00	1.3E+00	0.1	5.9E-04	1.3E-02	8.2E-02	1.4E-04	2.1E-02	7.8E-03	6.5E-04	1.6E-05	1.4E-05	6.9E-06
131	Screen No. 25	Emissions are routed and controlled by SN-115, SN-154, SN-155												
132	Screen No. 26	Emissions are routed and controlled by SN-115, SN-154, SN-155												
133	Screen No. 29	Emissions are routed and controlled by SN-115, SN-154, SN-155												
134	Screen No. 28	Emissions are routed and controll												

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
		ed by SN-115, SN-154, SN-155												
135	Screen No. 27	Emissions are routed and controlled by SN-115, SN-154, SN-155												
153	Waste & Raw Granule(BH)	1.5E+00	1.5E+00											
154	No. 2 Cooler (Scrubber)	4.8E+00	4.8E+00	0	0	1.1E+01	0	5.3E-04	7.8E-02	2.9E-02	2.5E-03	6.1E-05	5.2E-05	2.6E-05
155	No. 3 Cooler (Scrubber)	4.8E+00	4.8E+00	0	0	1.1E+01	0	5.3E-04	7.8E-02	2.9E-02	2.5E-03	6.1E-05	5.2E-05	2.6E-05
156	Conveyor No. 1	1.9E-01	6.4E-02											
157	Conveyor No. 2	1.1E-01	3.6E-02											
158	Transfer Conveyor No. 20	2.7E-02	9.0E-03					0.000	0.00	0.00	0.00			
159	Transfer Conveyor No. 21	2.7E-02	9.0E-03					0.00	0.00	0.00	0.00			
160	Transfer Conveyor No. 22	2.7E-02	9.0E-03					0.00	0.00	0.00	0.00			
161	Transfer Conveyor No. 23	5.6E-02	1.8E-02					0.00	0.00	0.00	0.00			
162	Transfer Conveyor No. 24	4.9E-02	1.6E-02					0.00	0.00	0.00	0.00			
163	Transfer Conveyor No. 25	6.1E-02	2.0E-02					0.00	0.00	0.00	0.00			
164	Transfer Conveyor	4.6E-02	1.5E-02					0.00	0.00	0.00	0.00			

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
	No. 33													
165	Transfer Conveyor No. 34	4.9E-02	1.6E-02					0.00	0.00	0.00	0.00			
166	Transfer Conveyor No. 35	5.5E-02	1.8E-02					0.00	0.00	0.00	0.00			
167	Transfer Conveyor No. 36	3.5E-02	1.2E-02					0.00	0.00	0.00	0.00			
168	Transfer Conveyor No. 37	4.7E-02	1.5E-02					0.00	0.00	0.00	0.00			
169	Transfer Conveyor No. 39	6.1E-02	2.0E-02					0.00	0.00	0.00	0.00			
170	Transfer Conveyor No. 40	6.2E-02	2.0E-02					0.00	0.00	0.00	0.00			
171	Transfer Conveyor No. 41	1.1E-01	3.6E-02					0.00	0.00	0.00	0.00			
172	Transfer Conveyor No. 42	9.8E-02	3.2E-02					0.00	0.00	0.00	0.00			
173	Conveyor No. 15	2.3E-02	7.6E-03											
174	Conveyor No. 16	2.3E-02	7.6E-03											
175	Conveyor No. 31	2.8E-02	9.2E-03											
183	Pugmill	3.5E-02	1.2E-02											
184	Pugmill	3.5E-02	1.2E-02											
186	Bucket Elevator No. 18	2.0E-02	6.4E-03					0.00	0.00	0.00	0.00			
187	Bucket Elevator No. 19	2.1E-02	6.9E-03					0.00	0.00	0.00	0.00			
188	Bucket Elevator No. 20	2.0E-02	6.4E-03					0.00	0.00	0.00	0.00			
189	Bucket Elevator No.	2.6E-02	8.6E-03					0.00	0.00	0.00	0.00			

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
	24													
190	Bucket Elevator No. 25	1.1E-02	3.7E-03					0.00	0.00	0.00	0.00			
194	Finished Granule Storage/Loading	5.6E-02	1.8E-02											
195	Waste Granule Storage/Loading	2.8E-02	9.2E-03					0.00	0.00	0.00	0.00			
199	Product Bin P1	1.4E-02	4.6E-03					0.00	0.00	0.00	0.00			
200	Product Bin P2	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
201	Product Bin P3	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
202	Product Bin P4	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
203	Product Bin P5	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
204	Product Bin P6	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
205	Product Bin P7	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
206	Product Bin P8	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
207	Waste Bin W21	1.4E-02	4.6E-03					0.00	0.02	0.00	0.00			
208	Waste Bin W22	1.4E-02	4.6E-03					0.00	0.01	0.00	0.00			
209	Waste Bin W23	1.4E-02	4.6E-03					0.00	0.01	0.00	0.00			
210	Waste Bin W24	1.4E-02	4.6E-03					0.00	0.01	0.00	0.00			
211	Covered Raw Gran. Stockpile (BH)	6.3E-03	3.1E-02					0.00	0.01	0.00	0.00			
212	Conveyor No. 43	3.5E-02	1.2E-02											
213	Conveyor No. 44	3.5E-02	1.2E-02											

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
214	IC Circuit Baghouse	3.5E-03	5.8E-03											
215	Kiln Dust Conveyor No. 27	3.9E-03	1.3E-03											
216	Transfer Conveyor No. 28	6.3E-03	2.1E-03											
300	Train Car Unload	1.4E-02	4.6E-03											
301	Truck Loading at Pugmill	1.4E-02	4.6E-03											
302	Mineral Unloading at Wet Stockpile	3.5E-02	1.2E-02											
303	Wet Stockpile Fugitives	2.0E-01	2.0E-01											
306	Plant Vehicle Traffic/Haul Off	1.3E+01	2.7E+00											
307	Temporary Storage Stockpile Drop	7.8E-02	7.8E-02											
308	Raw Stockpile	3.9E-01	3.9E-01											
310	Truck/Railcar Loading	5.6E-02	1.8E-02											
311	Automated Mixing System	1.3E+00	1.3E+00											
313	Truck Loading-Copper Dust Loadout	1.4E-04	4.6E-05					0.00	0.00	0.00	0.00			
444	**Gasoline tank (arch)**					12.40								
445	**Gasoline tank (college)**					4.96								
446	**Emergency**	0.1	0.1	2.1	0.1	0.1	80.1							

SN	Source Description	Total PM	PM10	NOx	SO2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
	Engine*													
	Total Pounds/hour =	134.15	90.68	34.00	1.86	51.26	155.53	4.1E-03	8.0E-01	2.3E-01	1.9E-02	4.7E-04	4.0E-04	2.0E-04

***The combustion HAPs for SN-446 are not listed out in Appendix A due to the low amount of 0.02 lb/hr of total combustion HAPs.**

SN	Source Description	Methanol	Toluene	Antimony	Benzene	DCB	Formaldehyde	Hexane	Mercury	Nickel	POM	Selenium	Vinyl Acetate
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
1	Tertiary Crusher Baghouse												
2	Transfer Tower												
3	Traylor Primary Crusher												
4	Traylor Crusher Surge Bin												
5	No. 20 Conveyor												
6	Primary Screen												
7	A.C. Primary Crusher												
8	Primary Screen												
9	Cone Secondary Crusher												
10	No. 1 Crusher												
11	Transfer Station												
12	Load Out Bin												
13	Load Out Bin												
14	No. 3 Conveyor												
15	No. 3A Conveyor												
16	A.C. Crusher Surge Bin												
17	Tertiary Crushing Stock Pile												
18	Railroad Loadout												
19	Feeders												
20	No. 4 Conveyor												
28	No. 5 Conveyor												
29	No. 6 Conveyor												
30	Screen												
31	Crusher												
32	Screen												
33	Crusher												
50	Overburden Removal												
51	Drilling												
52	Blasting												

SN	Source Description	Methanol (lbs/hr)	Toluene (lbs/hr)	Antimony (lbs/hr)	Benzene (lbs/hr)	DCB (lbs/hr)	Formaldehyde (lbs/hr)	Hexane (lbs/hr)	Mercury (lbs/hr)	Nickel (lbs/hr)	POM (lbs/hr)	Selenium (lbs/hr)	Vinyl Acetate (lbs/hr)
53	Blasting Explosives (ANFO)												
54	Quarry Truck Loading												
55	Quarry Truck Traffic												
57	Emergency Stockpile												
58	Emergency Railroad Loadout												
59	Conveyor from A.C. Crusher												
60	Parallel Crusher												
61	No. 45 Conveyor												
62	No. 46 Conveyor												
101	Dryer Feed End (BH)												
102	C&S Line #1 (BH)												
103	C&S Line #2 (BH)												
104	C&S Line #3 (BH)												
105	Filler Screen Baghouse												
106	Product & Tripper Flr. (BH)												
107	Feeders												
108	Dryer No. 1 Baghouse		2.3E-04	2.2E-05	1.4E-04	8.2E-05	5.1E-03	1.2E-01	3.1E-05	2.5E-04	3.0E-03	1.6E-05	
109	JB Conveyor												
110	No. 7 Filler Tank (BH)												
111	No. 1 Kiln Baghouse		1.8E-04	1.2E-05	1.1E-04	6.4E-05	4.0E-03	9.5E-05	1.7E-05	1.4E-04	2.3E-03	8.9E-06	
112	No. 2 Kiln Baghouse		1.8E-04	1.2E-05	1.1E-04	6.4E-05	4.0E-03	9.5E-05	1.7E-05	1.4E-04	2.3E-03	8.9E-06	
113	No. 3 Kiln Baghouse		1.8E-04	1.2E-05	1.1E-04	6.4E-05	4.0E-03	9.5E-05	1.7E-05	1.4E-04	2.3E-03	8.9E-06	

SN	Source Description	Methanol	Toluene	Antimony	Benzene	DCB	Formaldehyde	Hexane	Mercury	Nickel	POM	Selenium	Vinyl Acetate
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
114	No. 2 Mixer (Scrubber)		3.3E-06	4.9E-06	2.1E-06	1.2E-06	7.4E-05	1.8E-03	7.0E-06	5.7E-05	4.2E-05	3.6E-06	
115	No. 1 Cooler (Scrubber)	2.72	0.4	1.8E-05					2.6E-05	2.1E-04		1.4E-05	0.64
116	Dryer No. 2 Baghouse		1.0E-04	1.2E-05	6.3E-05	3.5E-05	2.2E-03	5.3E-02	1.7E-05	1.4E-04	1.3E-03	8.9E-06	
117	No. 1 Clay Tank Baghouse												
118	No. 2 Clay Tank Baghouse												
119	No. 3 Clay Tank Baghouse												
120	Sodium Silicate Bin												
121	No. 21 Elevator												
122	No. 22 Elevator												
123	No. 23 Elevator												
124	Coloring Feed End Baghouse												
128	No. 3 Mixer (Scrubber)		3.3E-06	4.9E-06	2.1E-06	1.2E-06	7.4E-05	1.8E-03	7.0E-06	5.7E-05	4.2E-05	3.6E-06	
129	No. 1 Mixer (Scrubber)		3.3E-06	4.9E-06	2.1E-06	1.2E-06	7.4E-05	1.8E-03	7.0E-06	5.7E-05	4.2E-05	3.6E-06	
130	Sodium Silicate Plant Boiler												
131	Screen No. 25												
132	Screen No. 26												
133	Screen No. 29												
134	Screen No. 28												
135	Screen No. 27												
150	IC Circuit - Silo No. 1 (BH)												
151	IC Circuit - Silo No. 2 (BH)												
152	IC Circuit - Silo No. 3 (BH)												
153	Waste & Raw Granule(BH)												
154	No. 2 Cooler (Scrubber)	2.72	0.4	1.8E-05					2.6E-05	2.1E-04		1.4E-05	0.64
155	No. 3 Cooler (Scrubber)	2.72	0.4	1.8E-08					2.6E-05	2.1E-04		1.4E-05	0.64
156	Conveyor No. 1												
157	Conveyor No. 2												

SN	Source Description	Methanol (lbs/hr)	Toluene (lbs/hr)	Antimony (lbs/hr)	Benzene (lbs/hr)	DCB (lbs/hr)	Formaldehyde (lbs/hr)	Hexane (lbs/hr)	Mercury (lbs/hr)	Nickel (lbs/hr)	POM (lbs/hr)	Selenium (lbs/hr)	Vinyl Acetate (lbs/hr)
158	Transfer Conveyor No. 20												
159	Transfer Conveyor No. 21												
160	Transfer Conveyor No. 22												
161	Transfer Conveyor No. 23												
162	Transfer Conveyor No. 24												
163	Transfer Conveyor No. 25												
164	Transfer Conveyor No. 33												
165	Transfer Conveyor No. 34												
166	Transfer Conveyor No. 35												
167	Transfer Conveyor No. 36												
168	Transfer Conveyor No. 37												
169	Transfer Conveyor No. 39												
170	Transfer Conveyor No. 40												
171	Transfer Conveyor No. 41												
172	Transfer Conveyor No.												

SN	Source Description	Methanol	Toluene	Antimony	Benzene	DCB	Formaldehyde	Hexane	Mercury	Nickel	POM	Selenium	Vinyl Acetate
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
	42												
173	Conveyor No. 15												
174	Conveyor No. 16												
175	Conveyor No. 31												
176	Conveyor No. 31A (Silicate Plant)												
183	Pugmill												
184	Pugmill												
186	Bucket Elevator No. 18												
187	Bucket Elevator No. 19												
188	Bucket Elevator No. 20												
189	Bucket Elevator No. 24												
190	Bucket Elevator No. 25												
194	Finished Granule Storage/Loading												
195	Waste Granule Storage/Loading												
199	Product Bin P1												
200	Product Bin P2												
201	Product Bin P3												
202	Product Bin P4												
203	Product Bin P5												
204	Product Bin P6												
205	Product Bin P7												
206	Product Bin P8												
207	Waste Bin W21												
208	Waste Bin W22												
209	Waste Bin W23												
210	Waste Bin W24												
211	Covered Raw Gran. Stockpile (BH)												
212	Conveyor No. 43												

SN	Source Description	Methanol (lbs/hr)	Toluene (lbs/hr)	Antimony (lbs/hr)	Benzene (lbs/hr)	DCB (lbs/hr)	Formaldehyde (lbs/hr)	Hexane (lbs/hr)	Mercury (lbs/hr)	Nickel (lbs/hr)	POM (lbs/hr)	Selenium (lbs/hr)	Vinyl Acetate (lbs/hr)
213	Conveyor No. 44												
214	IC Circuit Baghouse												
215	Kiln Dust Conveyor No. 27												
216	Transfer Conveyor No. 28												
300	Train Car Unload												
301	Truck Loading at Pugmill												
302	Mineral Unloading at Wet Stockpile												
303	Wet Stockpile Fugitives												
304	Traincar Unloading (Silica)												
306	Plant Vehicle Traffic/Haul Off												
307	Temporary Storage Stockpile Drop												
308	Raw Stockpile												
310	Truck/Railcar Loading												
311	Automated Mixing System												
312	Truck Loading-Coloring Batch Mixer												
313	Truck Loading-Copper Dust Loadout												
444	**Gasoline tank (arch)**												
445	**Gasoline tank (college)**												
446	**Emergency Engine***												

SN	Source Description	Methanol	Toluene	Antimony	Benzene	DCB	Formaldehyde	Hexane	Mercury	Nickel	POM	Selenium	Vinyl Acetate
		(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
	Total Pounds/hour =	8.16	1.2	1.3E-03	5.4E-4	3.2E-04	2.0E-02	1.8E-01	2.0E-04	1.7E-03	1.2E-02	1.1E-04	1.92

***The combustion HAPs for SN-446 are not listed out in Appendix A due to the low amount of 0.02 lb/hr of total combustion HAPs.**

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
1	Tertiary Crusher Baghouse	retired												
2	Transfer Tower	retired												
3	Traylor Primary Crusher	1.3E+01	5.3E+00											
4	Traylor Crusher Surge Bin	6.1E-01	2.0E-01											
5	No. 20 Conveyor	8.6E-01	2.8E-01											
6	Primary Screen	9.6E+00	3.2E+00											
7	A.C. Primary Crusher	2.6E+01	1.1E+01											
8	Primary Screen	1.2E+01	3.9E+00											
9	Cone Secondary Crusher	2.6E+00	1.1E+00											
10	No. 1 Crusher	2.7E-01	8.9E-02											
11	Transfer Station	1.2E+00	4.0E-01											
12	Load Out Bin	1.2E+00	4.0E-01											
13	Load Out Bin	1.2E+00	4.0E-01											
14	No. 3 Conveyor	1.4E+00	4.7E-01											
15	No. 3A Conveyor	1.3E+00	4.1E-01											
16	A.C. Crusher Surge Bin	1.2E+00	4.0E-01											
17	Tertiary Crushing Stock Pile	5.1E+00	5.1E+00											
18	Railroad	9.2E-01	3.0E-01											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
	Loadout													
19	Feeders	7.4E-01	2.4E-01											
20	No. 4 Conveyor	1.4E-01	4.7E-02											
28	No. 5 Conveyor	1.8E-01	6.0E-02											
29	No. 6 Conveyor	1.3E+00	4.4E-01											
30	Screen	5.8E+00	1.9E+00											
31	Crusher	5.3E+00	2.1E+00											
32	Screen	5.8E+00	1.9E+00											
33	Crusher	5.3E+00	2.1E+00											
50	Overburden Removal	6.4E+00	6.4E+00											
51	Drilling	5.6E-01	5.6E-01											
52	Blasting	4.4E-01	2.3E-01											
53	Blasting Explosives (ANFO)	0	0	6.0E+01	7.0E+00	0	2.3E+02							
54	Quarry Truck Loading	7.0E-01	7.0E-01											
55	Quarry Truck Traffic	1.7E+02	4.8E+01											
57	Emergency Stockpile	5.5E+00	5.5E+00											
58	Emergency Railroad Loadout	9.8E-01	3.2E-01											
59	Conveyor from A.C. Crusher	9.2E-01	3.0E-01											
60	Parallel Crusher	retired												
61	No. 45 Conveyor	retired												
62	No. 46 Conveyor	retired												
101	Dryer Feed End (BH)	1.1E+01	1.1E+01											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
102	C&S Line #1 (BH)	1.1E+01	1.1E+01											
103	C&S Line #2 (BH)	1.1E+01	1.1E+01											
104	C&S Line #3 (BH)	1.2E+01	1.2E+01											
105	Filler Screen Baghouse	4.4E+00	4.4E+00											
106	Product & Tripper Flr. (BH)	4.4E+00	4.4E+00											
107	Feeders	3.4E-01	1.1E-01											
108	Dryer No. 1 Baghouse	2.5E+01	2.5E+01	30.1	1.8E-01	1.7E+00	2.5E+01	2.8E-03	4.10E-01	1.5E-01	1.3E-02	3.2E-04	2.7E-04	1.3E-04
109	JB Conveyor	Decommissioned												
110	No. 7 Filler Tank (BH)	Decommissioned												
111	No. 1 Kiln Baghouse	1.4E+01	1.4E+01	11.6	1.4E-01	1.3E+00	1.9E+01	1.5E-03	2.30E-01	8.4E-02	7.1E-03	1.8E-04	1.5E-04	7.5E-05
112	No. 2 Kiln Baghouse	1.4E+01	1.4E+01	11.6	1.4E-01	1.3E+00	1.9E+01	1.5E-03	2.30E-01	8.4E-02	7.1E-03	1.8E-04	1.5E-04	7.5E-05
113	No. 3 Kiln Baghouse	1.4E+01	1.4E+01	11.6	1.4E-01	1.3E+00	1.9E+01	1.5E-03	2.3E-01	8.4E-02	7.1E-03	1.8E-04	1.5E-04	7.5E-05
114	No. 2 Mixer (Scrubber)	5.6E+00	5.6E+00	0.4	2.6E-03	5.8E-02	3.6E-01	6.2E-04	9.1E-02	3.4E-02	2.9E-03	7.1E-05	6.1E-05	3.0E-05
115	No. 1 Cooler (Scrubber)	2.1E+01	2.1E+01	0	0	*	0	2.3E-03	3.4E-01	1.30E-01	1.1E-02	2.7E-04	2.3E-04	1.1E-04
116	Dryer No. 2 Baghouse	1.4E+01	1.4E+01	12.9	7.7E-02	7.1E-01	1.1E+01	1.5E-	2.3E-01	8.4E-02	7.1E-03	1.8E-04	1.5E-04	7.5E-05

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
								03						
117	No. 1 Clay Tank Baghouse	8.4E-04	4.2E-03											
118	No. 2 Clay Tank Baghouse	8.4E-04	4.2E-03											
119	No. 3 Clay Tank Baghouse	8.4E-04	4.2E-03											
120	Sodium Silicate Bin	Decommissioned												
121	No. 21 Elevator	Emissions are routed and controlled by SN-115, SN-154, SN-155												
122	No. 22 Elevator	Emissions are routed and controlled by SN-115, SN-154, SN-155												
123	No. 23 Elevator	Emissions are routed and controlled by SN-115, SN-154, SN-155												
124	Coloring Feed End Baghouse	5.7E+00	5.7E+00											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
128	No. 3 Mixer (Scrubber)	5.6E+00	5.6E+00	0.4	2.6E-03	5.8E-02	3.6E-01	6.2E-04	9.1E-02	3.4E-02	2.9E-03	7.1E-05	6.1E-05	3.0E-05
129	No. 1 Mixer (Scrubber)	5.6E+00	5.6E+00	0.4	2.6E-03	5.8E-02	3.6E-01	6.2E-04	9.1E-02	3.4E-02	2.9E-03	7.1E-05	6.1E-05	3.0E-05
130	Sodium Silicate Plant Boiler	Decommissioned												
131	Screen No. 25	Emissions are routed and controlled by SN-115, SN-154, SN-155												
132	Screen No. 26	Emissions are routed and controlled by SN-115, SN-154, SN-155												
133	Screen No. 29	Emissions are routed and controlled by SN-115, SN-154, SN-155												
134	Screen No. 28	Emissions are routed and controlled by SN-115,												

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
		SN-154, SN-155												
135	Screen No. 27	Emissions are routed and controlled by SN-115, SN-154, SN-155												
150	IC Circuit - Silo No. 1 (BH)	Decommissioned												
151	IC Circuit - Silo No. 2 (BH)	Decommissioned												
152	IC Circuit - Silo No. 3 (BH)	Decommissioned												
153	Waste & Raw Granule(BH)	6.6E+00	6.6E+00											
154	No. 2 Cooler (Scrubber)	2.1E+01	2.1E+01	0	0	*	0	2.3E-03	3.2E-01	1.3E-01	1.1E-02	2.7E-04	2.3E-04	1.1E-04
155	No. 3 Cooler (Scrubber)	2.1E+01	2.1E+01	0	0	*	0	2.3E-03	3.4E-01	1.30E-01	1.1E-02	2.7E-04	2.3E-04	1.1E-04
156	Conveyor No. 1	8.5E-01	2.8E-01											
157	Conveyor No. 2	4.8E-01	1.6E-01											
158	Transfer Conveyor No. 20	1.2E-01	3.9E-02											
159	Transfer Conveyor No. 21	1.2E-01	3.9E-02											
160	Transfer Conveyor	1.2E-01	3.9E-02											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
	No. 22													
161	Transfer Conveyor No. 23	2.5E-01	8.1E-02											
162	Transfer Conveyor No. 24	2.1E-01	7.1E-02											
163	Transfer Conveyor No. 25	2.7E-01	8.8E-02											
164	Transfer Conveyor No. 33	2.0E-01	6.5E-02											
165	Transfer Conveyor No. 34	2.1E-01	7.1E-02											
166	Transfer Conveyor No. 35	2.4E-01	7.9E-02											
167	Transfer Conveyor No. 36	1.5E-01	5.0E-02											
168	Transfer Conveyor No. 37	2.1E-01	6.7E-02											
169	Transfer Conveyor No. 39	2.7E-01	8.8E-02											
170	Transfer Conveyor No. 40	2.7E-01	8.9E-02											
171	Transfer Conveyor No. 41	4.8E-01	1.6E-01											
172	Transfer Conveyor No. 42	4.3E-01	1.4E-01											
173	Conveyor No. 15	1.0E-01	3.3E-02											
174	Conveyor No. 16	1.0E-01	3.3E-02											
175	Conveyor	1.2E-01	4.0E-02											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
	No. 31													
183	Pugmill	1.5E-01	5.0E-02											
184	Pugmill	1.5E-01	5.0E-02											
186	Bucket Elevator No. 18	8.6E-02	2.8E-02											
187	Bucket Elevator No. 19	9.2E-02	3.0E-02											
188	Bucket Elevator No. 20	8.6E-02	2.8E-02											
189	Bucket Elevator No. 24	1.1E-01	3.8E-02											
190	Bucket Elevator No. 25	4.9E-02	1.6E-02											
194	Finished Granule Storage/Loading	2.5E-01	8.1E-02											
195	Waste Granule Storage/Loading	1.2E-01	4.0E-02											
199	Product Bin P1	6.1E-02	2.0E-02											
200	Product Bin P2	6.1E-02	2.0E-02											
201	Product Bin P3	6.1E-02	2.0E-02											
202	Product Bin P4	6.1E-02	2.0E-02											
203	Product Bin P5	6.1E-02	2.0E-02											
204	Product Bin P6	6.1E-02	2.0E-02											
205	Product Bin P7	6.1E-02	2.0E-02											
206	Product Bin P8	6.1E-02	2.0E-02											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
207	Waste Bin W21	6.1E-02	2.0E-02											
208	Waste Bin W22	6.1E-02	2.0E-02											
209	Waste Bin W23	6.1E-02	2.0E-02											
210	Waste Bin W24	6.1E-02	2.0E-02											
211	Covered Raw Gran. Stockpile (BH)	2.7E-02	1.4E-01											
212	Conveyor No. 43	1.5E-01	5.0E-02											
213	Conveyor No. 44	1.5E-01	5.0E-02											
214	IC Circuit Baghouse	1.5E-02	2.5E-02											
215	Kiln Dust Conveyor No. 27	1.7E-02	5.6E-03											
216	Transfer Conveyor No. 28	2.8E-02	9.1E-03											
300	Train Car Unload	6.1E-02	2.0E-02											
301	Truck Loading at Pugmill	6.1E-02	2.0E-02											
302	Mineral Unloading at Wet Stockpile	1.5E-01	5.0E-02											
303	Wet Stockpile Fugitives	8.6E-01	8.6E-01											
306	Plant Vehicle Traffic/Haul Off	5.7E+01	1.2E+01											
307	Temporary Storage	3.4E-01	3.4E-01											

SN	Source Description	Total PM	PM_{10}	NO_x	SO_2	VOC	CO	lead	chromium	manganese	cobalt	arsenic	cadmium	beryllium
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
	Stockpile Drop													
308	Raw Stockpile	1.7E+00	1.7E+00											
310	Truck/Railcar Loading	2.5E-01	8.1E-02											
311	Automated Mixing System	5.6E+00	5.6E+00											
313	Truck Loading-Copper Dust Loadout	6.1E-04	2.0E-04											
444	**Gasoline tank (arch)**					0.01								
445	**Gasoline tank (college)**					0.04								
446	**Emergency Engine****	0.1	0.1	0.5	0.1	0.1	0.1							
	Total Tons/year =	589.3	354.1	139.5	7.9	44.64	324.2	0.018	2.603	0.978	0.083	0.002	0.002	0.001

* Bubbled emissions limited to combined total for SN-115, SN-154, and SN-155 – VOC = 38.0 tpy, single HAP (Methanol) = 9.5 tpy.

****The combustion HAPs for SN-446 are not listed out in Appendix A due to the low amount of 0.01 ton/yr of total combustion HAPs.**

SN	Source Description	Methanol (tons/yr)	Toluene (tons/yr)	Antimony (tons/yr)	Benzene (tons/yr)	DCB (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Mercury (tons/yr)	Nickel (tons/yr)	POM (tons/yr)	Selenium (tons/yr)	Vinyl Acetate (tons/yr)
1	Tertiary Crusher Baghouse												
2	Transfer Tower												
3	Traylor Primary Crusher												
4	Traylor Crusher Surge Bin												
5	No. 20 Conveyor												
6	Primary Screen												
7	A.C. Primary Crusher												
8	Primary Screen												
9	Cone Secondary Crusher												
10	No. 1 Crusher												
11	Transfer Station												
12	Load Out Bin												
13	Load Out Bin												
14	No. 3 Conveyor												
15	No. 3A Conveyor												
16	A.C. Crusher Surge Bin												
17	Tertiary Crushing Stock Pile												
18	Railroad Loadout												
19	Feeders												
20	No. 4 Conveyor												
28	No. 5 Conveyor												
29	No. 6 Conveyor												
30	Screen												

SN	Source Description	Methanol (tons/yr)	Toluene (tons/yr)	Antimony (tons/yr)	Benzene (tons/yr)	DCB (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Mercury (tons/yr)	Nickel (tons/yr)	POM (tons/yr)	Selenium (tons/yr)	Vinyl Acetate (tons/yr)
31	Crusher												
32	Screen												
33	Crusher												
50	Overburden Removal												
51	Drilling												
52	Blasting												
53	Blasting Explosives (ANFO)												
54	Quarry Truck Loading												
55	Quarry Truck Traffic												
57	Emergency Stockpile												
58	Emergency Railroad Loadout												
59	Conveyor from A.C. Crusher												
60	Parallel Crusher												
61	No. 45 Conveyor												
62	No. 46 Conveyor												
101	Dryer Feed End (BH)												
102	C&S Line #1 (BH)												
103	C&S Line #2 (BH)												
104	C&S Line #3 (BH)												
105	Filler Screen Baghouse												
106	Product & Tripper Flr. (BH)												
107	Feeders												
108	Dryer No. 1		1.0E-	9.5E-05	6.3E-04	3.6E-	2.3E-02	5.4E-	1.4E-	1.1E-	1.3E-	7.1E-05	

SN	Source Description	Methanol	Toluene	Antimony	Benzene	DCB	Formaldehyde	Hexane	Mercury	Nickel	POM	Selenium	Vinyl Acetate
		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
	Baghouse		03			04		01	04	03	02		
109	JB Conveyor												
110	No. 7 Filler Tank (BH)												
111	No. 1 Kiln Baghouse		7.9E-04	5.3E-05	4.9E-04	2.8E-04	1.7E-02	4.2E-01	7.6E-05	6.2E-04	1.0E-02	3.9E-05	
112	No. 2 Kiln Baghouse		7.9E-04	5.3E-05	4.9E-04	2.8E-04	1.7E-02	4.2E-01	7.6E-05	6.2E-04	1.0E-02	3.9E-05	
113	No. 3 Kiln Baghouse		7.9E-04	5.3E-05	4.9E-04	2.8E-04	1.7E-02	4.2E-01	7.6E-05	6.3E-04	1.0E-02	3.9E-05	
114	No. 2 Mixer (Scrubber)		1.5E-05	2.1E-05	9.0E-06	5.2E-06	3.2E-04	7.7E-03	3.1E-05	2.5E-04	1.8E-04	1.6E-05	
115	No. 1 Cooler (Scrubber)	*	1.7	8.0E-05					1.2E-04	9.3E-04		5.9E-05	2.8
116	Dryer No. 2 Baghouse		4.4E-04	5.3E-05	2.7E-04	1.5E-04	9.7E-03	2.3E-01	7.6E-05	6.2E-04	5.5E-03	3.9E-05	
117	No. 1 Clay Tank Baghouse												
118	No. 2 Clay Tank Baghouse												
119	No. 3 Clay Tank Baghouse												
120	Sodium Silicate Bin												
121	No. 21 Elevator												
122	No. 22 Elevator												
123	No. 23 Elevator												
124	Coloring Feed End Baghouse												
128	No. 3 Mixer (Scrubber)		1.5E-05	2.1E-05	9.0E-06	5.2E-06	3.2E-04	7.7E-03	3.1E-05	2.5E-04	1.8E-04	1.6E-05	
129	No. 1 Mixer (Scrubber)		1.5E-05	2.1E-05	9.0E-06	5.2E-06	3.2E-04	7.7E-03	3.1E-05	2.5E-04	1.8E-04	1.6E-05	
130	Sodium Silicate Plant Boiler												
131	Screen No. 25												
132	Screen No. 26												
133	Screen No. 29												

SN	Source Description	Methanol (tons/yr)	Toluene (tons/yr)	Antimony (tons/yr)	Benzene (tons/yr)	DCB (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Mercury (tons/yr)	Nickel (tons/yr)	POM (tons/yr)	Selenium (tons/yr)	Vinyl Acetate (tons/yr)
134	Screen No. 28												
135	Screen No. 27												
150	IC Circuit - Silo No. 1 (BH)												
151	IC Circuit - Silo No. 2 (BH)												
152	IC Circuit - Silo No. 3 (BH)												
153	Waste & Raw Granule(BH)												
154	No. 2 Cooler (Scrubber)	*	1.7	8.0E-05					1.2E-04	9.3E-04		5.9E-05	2.8
155	No. 3 Cooler (Scrubber)	*	1.7	8.0E-05					1.2E-04	9.3E-04		5.9E-05	2.8
156	Conveyor No. 1												
157	Conveyor No. 2												
158	Transfer Conveyor No. 20												
159	Transfer Conveyor No. 21												
160	Transfer Conveyor No. 22												
161	Transfer Conveyor No. 23												
162	Transfer Conveyor No. 24												
163	Transfer Conveyor No. 25												
164	Transfer Conveyor No. 33												
165	Transfer Conveyor No. 34												
166	Transfer Conveyor No.												

SN	Source Description	Methanol (tons/yr)	Toluene (tons/yr)	Antimony (tons/yr)	Benzene (tons/yr)	DCB (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Mercury (tons/yr)	Nickel (tons/yr)	POM (tons/yr)	Selenium (tons/yr)	Vinyl Acetate (tons/yr)
	35												
167	Transfer Conveyor No. 36												
168	Transfer Conveyor No. 37												
169	Transfer Conveyor No. 39												
170	Transfer Conveyor No. 40												
171	Transfer Conveyor No. 41												
172	Transfer Conveyor No. 42												
173	Conveyor No. 15												
174	Conveyor No. 16												
175	Conveyor No. 31												
176	Conveyor No. 31A (Silicate Plant)												
183	Pugmill												
184	Pugmill												
186	Bucket Elevator No. 18												
187	Bucket Elevator No. 19												
188	Bucket Elevator No. 20												
189	Bucket Elevator No. 24												
190	Bucket Elevator No. 25												
191	Bucket Elv. No. 27 (Silicate Plt.)												
194	Finished												

SN	Source Description	Methanol (tons/yr)	Toluene (tons/yr)	Antimony (tons/yr)	Benzene (tons/yr)	DCB (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Mercury (tons/yr)	Nickel (tons/yr)	POM (tons/yr)	Selenium (tons/yr)	Vinyl Acetate (tons/yr)
	Granule Storage/Loading												
195	Waste Granule Storage/Loading												
199	Product Bin P1												
200	Product Bin P2												
201	Product Bin P3												
202	Product Bin P4												
203	Product Bin P5												
204	Product Bin P6												
205	Product Bin P7												
206	Product Bin P8												
207	Waste Bin W21												
208	Waste Bin W22												
209	Waste Bin W23												
210	Waste Bin W24												
211	Covered Raw Gran. Stockpile (BH)												
212	Conveyor No. 43												
213	Conveyor No. 44												
214	IC Circuit Baghouse												
215	Kiln Dust Conveyor No. 27												
216	Transfer Conveyor No. 28												
300	Train Car Unload												
301	Truck Loading at Pugmill												
302	Mineral Unloading at Wet Stockpile												

SN	Source Description	Methanol (tons/yr)	Toluene (tons/yr)	Antimony (tons/yr)	Benzene (tons/yr)	DCB (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Mercury (tons/yr)	Nickel (tons/yr)	POM (tons/yr)	Selenium (tons/yr)	Vinyl Acetate (tons/yr)
303	Wet Stockpile Fugitives												
304	Traincar Unloading (Silica)												
306	Plant Vehicle Traffic/Haul Off												
307	Temporary Storage Stockpile Drop												
308	Raw Stockpile												
310	Truck/Railcar Loading												
311	Automated Mixing System												
312	Truck Loading-Coloring Batch Mixer												
313	Truck Loading-Copper Dust Loadout												
444	**Gasoline tank (arch)**												
445	**Gasoline tank (college)**												
446	**Emergency Engine****												
	Total Tons/year =	9.500	5.1	0.0006	0.0024	0.0014	0.0847	2.0531	0.0009	0.0071	0.0490	0.0005	8.4

* Bubbled emissions limited to combined total for SN-115, SN-154, and SN-155 – VOC = 38.0 tpy, single HAP (Methanol) = 9.5 tpy.

****The combustion HAPs for SN-446 are not listed out in Appendix A due to the low amount of 0.01 ton/yr of total combustion HAPs.**

Appendix B- 40 C.F.R. §279.11

§279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under this part unless it is shown not to exceed any of the allowable levels of the constituents and properties shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any allowable level and the person making that showing complies with §§279.72, 279.73, and 279.74(b), the used oil is no longer subject to this part.

TABLE 1— USED OIL NOT EXCEEDING ANY ALLOWABLE LEVEL SHOWN BELOW IS NOT SUBJECT TO THIS PART WHEN BURNED FOR ENERGY RECOVERY[1]

Constituent/property	Allowable level
Arsenic	5 ppm maximum.
Cadmium	2 ppm maximum.
Chromium	10 ppm maximum.
Lead	100 ppm maximum.
Flash point	100 °F minimum.
Total halogens	4,000 ppm maximum.[2]
NOTE: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).	

[1]The allowable levels do not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see §279.10(b)).

[2]Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under §279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

[57 FR 41612, Sept. 10, 1992, as amended at 58 FR 26425, May 3, 1993; 71 FR 40280, July 14, 2006]

Appendix C- 40 CFR 63, Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

§63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

Back to Top

§63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in §63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in §63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in §63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).

(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to §63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under §63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4181, Jan. 24, 2011]

Back to Top

§63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in §63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in §63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.

(d) An affected source is an existing affected source if it is not new or reconstructed.

Back to Top

§63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in §63.11111(c) or §63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under §63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4181, Jan. 24, 2011]

Back to Top

Emission Limitations and Management Practices

Back to Top

§63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, 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. 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.

(b) You must keep applicable records and submit reports as specified in §63.11125(d) and §63.11126(b).

[76 FR 4182, Jan. 24, 2011]

Back to Top

§63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

Back to Top

§63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section §63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in §63.11116.

(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under §63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

Back to Top

§63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in §63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in §63.11120.

(f) You must submit the applicable notifications as required under §63.11124.

(g) You must keep records and submit reports as specified in §§63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008]

Back to Top

Testing and Monitoring Requirements

Back to Top

§63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in §63.11113(e), of a vapor balance system required under §63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference,*see* §63.14).

(b) Each owner or operator choosing, under the provisions of §63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph §63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see §63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (*i.e.,* performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in §63.11092(f).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

Back to Top

Notifications, Records, and Reports

Back to Top

§63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in §63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in §63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in §63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in §63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, within 60 days of the applicable compliance date specified in §63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not required to

submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in §63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in §63.11118. If your affected source is subject to the control requirements in §63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in §63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, in accordance with the schedule specified in §63.9(h). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11120(a) and (b).

(5) You must submit additional notifications specified in §63.9, as applicable.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

Back to Top

§63.11125 What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in §63.11118 must keep records of all tests performed under §63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in §63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (*e.g.,* via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

Back to Top

§63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in §63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under §63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year 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 §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

Back to Top

Other Requirements and Information

Back to Top

§63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

Back to Top

§63.11131 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a 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 U.S. EPA and cannot be transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§63.11116 through 63.11118 and 63.11120.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

Back to Top

§63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Dual-point vapor balance system means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

Gasoline dispensing facility (GDF) means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

Motor vehicle means any self-propelled vehicle designed for transporting persons or property on a street or highway.

Nonroad engine means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

Nonroad vehicle means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in §63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

Vapor balance system means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

Vapor-tight means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.11092(f) of this part.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

Back to Top

Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More[1]

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to §63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).
	(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
	(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in §63.11132.
	(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
	(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
	(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in §63.11117(b).
	(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.
	(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
	(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:

	$Pf = 2e^{-500.887/v}$
	Where:
	Pf = Minimum allowable final pressure, inches of water.
	v = Total ullage affected by the test, gallons.
	e = Dimensionless constant equal to approximately 2.718.
	2 = The initial pressure, inches water.
2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to §63.11118	Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in §63.11132, and comply with the requirements of item 1 in this Table.

[1]The management practices specified in this Table are not applicable if you are complying with the requirements in §63.11118(b)(2), except that if you are complying with the requirements in §63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4184, Jan. 24, 2011]

Back to Top

Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:
	(i) All hoses in the vapor balance system are properly connected,
	(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,
	(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,
	(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and
	(v) All hatches on the tank truck are closed and securely fastened.
	(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the

	specifications of EPA Method 27 shall be carried with the cargo tank, as specified in §63.11125(c).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Back to Top

Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

Citation	Subject	Brief description	Applies to subpart CCCCCC
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in §63.11111.
§63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, §63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in §63.11132.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to §63.11116
§63.6(a)	Compliance with Standards/Operation & Maintenance—Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§63.6(b)(1)-(4)	Compliance Dates for New	Standards apply at effective	Yes.

	and Reconstructed Sources	date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, §63.11113 specifies the compliance dates.
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No. *See*§63.11115 for general duty requirement.

63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§63.6(e)(2)	[Reserved]		
§63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§63.6(h)(2)(ii)	[Reserved]		
§63.6(h)(2)(iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§63.6(h)(3)	[Reserved]		
§63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.
§63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE	No.

		observations	
§63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to §63.8(e); COMS are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	No.
§63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance	No.

		Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	
§63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§63.7(c)	Quality Assurance	Requirement to submit site-	Yes.

	(QA)/Test Plan	specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, §63.11120(c) specifies conditions for conducting performance tests.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive	Yes.

		performance test	
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11 apply	Yes.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	No.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
§63.8(c)(1)(i)-(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in §63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS,	No.

		as specified in §63.6(e)(3)	
§63.8(c)(2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	No.
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of	Yes.

		commencement of construction/reconstruction, notification of startup; contents of each	
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless	Yes.

		compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	
§63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. *See*§63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.

§63.10(c)	Records	Additional records for CMS	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	No. *See*§63.11126(b) for malfunction reporting requirements.
§63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	No.
§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report	No.

		containing all of the information in §§63.8(c)(7)-(8) and 63.10(c)(5)-(13)	
§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No, §63.11130(K) specifies excess emission events for this subpart.
§63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§63.10(c)(5)-(13) and 63.8(c)(7)-(8)	No.
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	No.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.

§63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Appendix D: Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

§60.4230 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) 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 SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after July 1, 2008.

(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:

(i) On or after July 1, 2008; or

(ii) On or after January 1, 2009, for emergency engines.

(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) On or after January 1, 2009, for emergency engines.

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

(5) Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.

(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b) The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine 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 as applicable.

(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) Stationary SI 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 parts 90 and 1048, 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.

(f) Owners and operators of facilities with internal combustion engines 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.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37972, June 28, 2011]

Emission Standards for Manufacturers

§60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing such engines?

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as follows:

If engine displacement is * * *	and manufacturing dates are * * *	the engine must meet emission standards and related requirements for nonhandheld engines under * * *
(1) below 225 cc	July 1, 2008 to December 31, 2011	40 CFR part 90.
(2) below 225 cc	January 1, 2012 or later	40 CFR part 1054.
(3) at or above 225 cc	July 1, 2008 to December 31, 2010	40 CFR part 90.
(4) at or above 225	January 1, 2011 or later	40 CFR part 1054.

cc		

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE with a maximum engine power greater than 25 HP and less than 130 HP that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) that use gasoline to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc that are rich burn engines that use LPG to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(d) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP (except gasoline and rich burn engines that use LPG), must certify those engines to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc (except gasoline and rich burn engines that use LPG) to the certification emission standards for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP.

(e) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) that are lean burn engines that use LPG to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (75 KW) and less than 500 HP (373 KW) manufactured prior to January 1, 2011, and for stationary SI ICE with a maximum engine power greater than or equal to 500 HP (373 KW) manufactured prior to July 1, 2010, manufacturers may choose to certify these engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048 applicable to engines that are not severe duty engines.

(f) Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, to the extent they apply to equipment manufacturers.

(g) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary SI 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 SI ICE.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59175, Oct. 8, 2008; 76 FR 37973, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

§60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.

Emission Standards for Owners and Operators

§60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE.

(b) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE.

(c) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE.

(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency

stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

(f) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section.

(1) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with emission standards in §60.4231(a) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in §60.4231(a) applicable to engines manufactured on July 1, 2008.

(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline engines and are modified or reconstructed after June 12, 2006, must comply with the emission standards in §60.4231(b) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(b) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(3) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in §60.4231(c). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(c) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(4) Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NO_x) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NO_x emission standard of 250 ppmvd at 15 percent oxygen (O_2), a CO emission standard 540 ppmvd at 15 percent O_2 (675 ppmvd at 15 percent O_2 for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O_2, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines;

(iv) Prior to January 1, 2008, for non-emergency lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

(5) Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines. Engines with maximum engine power less than 500 HP and a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power less than 500 HP manufactured on July 1, 2008. Engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) and a date of manufacture prior to July 1, 2007 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) manufactured on July 1, 2007. Lean burn engines greater than or equal to 500 HP and less than 1,350 HP with a date of manufacture prior to January 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE that are lean burn engines greater than or equal to 500 HP and less than 1,350 HP and manufactured on January 1, 2008.

(g) Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of aftertreatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of aftertreatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.

(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37973, June 28, 2011]

§60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

Other Requirements for Owners and Operators

§60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.

§60.4236 What is the deadline for importing or installing stationary SI ICE produced in previous model years?

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.

(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

(d) In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.

(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

§60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.

Compliance Requirements for Manufacturers

§60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP) or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines

meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program or a manufacturer of equipment containing such engines?

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can

choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247.

(b) Manufacturers of engines other than those certified to standards in 40 CFR part 90 or 40 CFR part 1054 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D-1 cycle of International Organization of Standardization 8178-4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 3 to 40 CFR 1048.505, except that Table 3 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

(c) Certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, is voluntary, but manufacturers who decide to certify are subject to all of the requirements indicated in this subpart with regard to the engines included in their certification. Manufacturers must clearly label their stationary SI engines as certified or non-certified engines.

(d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in §60.4248. In addition, the manufacturer must provide information to the owner and operator of the certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.

(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.

(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in §60.4231(d) or (e), as applicable, when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on gaseous fuels with different quality than the fuel that it was certified to.

(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in §60.4231(d) or (e), as applicable, but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(h) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

(i) For engines being certified to the voluntary certification standards in Table 1 of this subpart, the VOC measurement shall be made by following the procedures in 40 CFR 1065.260 and 1065.265 in order to determine the total NMHC emissions by using a flame-ionization detector and non-methane cutter. As an alternative to the nonmethane cutter, manufacturers may use a gas chromatograph as allowed under 40 CFR 1065.267 and may measure ethane, as well as methane, for excluding such levels from the total VOC measurement.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59176, Oct. 8, 2008; 76 FR 37974, June 28, 2011]

§60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048 or 1054, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, as applicable. Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054 for that model year may certify any such family that contains both nonroad 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. This provision also applies to equipment or component manufacturers certifying to standards under 40 CFR part 1060.

(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words “and stationary” after the word “nonroad” to the label.

(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(e) All stationary SI engines subject to mandatory certification 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. Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909. Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.

(f) For manufacturers of gaseous-fueled stationary engines required to meet the warranty provisions in 40 CFR 90.1103 or 1054.120, we may establish an hour-based warranty period equal to at least the certified emissions life of the engines (in engine operating hours) if we determine that these engines are likely to operate for a number of hours greater than the applicable useful life within 24 months. We will not approve an alternate warranty under this paragraph (f) for nonroad engines. An alternate warranty period approved under this paragraph (f) will be the specified number of engine operating hours or two years, whichever comes first. The engine manufacturer shall request this alternate warranty period in its application for certification or in an earlier submission. We may approve an alternate warranty period for an engine family subject to the following conditions:

(1) The engines must be equipped with non-resettable hour meters.

(2) The engines must be designed to operate for a number of hours substantially greater than the applicable certified emissions life.

(3) The emission-related warranty for the engines may not be shorter than any published warranty offered by the manufacturer without charge for the engines. Similarly, the emission-related warranty for any component shall not be shorter than any published warranty offered by the manufacturer without charge for that component.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

Compliance Requirements for Owners and Operators

§60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) If you are an owner or operator of a stationary SI internal combustion engine 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, but no performance testing is required if you are an owner or operator.

(ii) If you are an owner or operator of a stationary SI 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 within 1 year of engine startup to demonstrate compliance.

(iii) If you are an owner or operator of a stationary SI 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 within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

(i) If you are an owner or operator of a stationary SI internal combustion engine greater than 25 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.

(ii) If you are an owner or operator of a stationary SI 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 and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(c) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f).

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(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 (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(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 (d)(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 (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(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 (d)(2) of this section. Except as provided in paragraph (d)(3)(i) 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) 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]

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

(h) If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.

(1) Purchasing an engine certified according to 40 CFR part 1048. 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.

(i) If you are an owner or operator of a modified or reconstructed stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to one of the methods specified in paragraphs (i)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4233(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37974, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

Testing Requirements for Owners and Operators

§60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(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 be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) 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 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad (Eq. 3)$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad (Eq. 4)$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{corr} = RF_i \times C_{meas} \qquad (Eq. 5)$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \quad \text{(Eq. 6)}$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

Notification, Reports, and Records for Owners and Operators

§60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of 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.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

(e) If you own or operate an emergency stationary SI 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 §60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in §60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(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 §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(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.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 78 FR 6697, Jan. 30, 2013]

General Provisions

§60.4246 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Mobile Source Provisions

§60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90. Manufacturers certifying to emission standards in 40 CFR part 1054 must meet the provisions of 40 CFR part 1054. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060 to the extent they apply to equipment manufacturers.

(b) Manufacturers required to certify to emission standards in 40 CFR part 1048 must meet the provisions of 40 CFR part 1048. Manufacturers certifying to emission standards in 40 CFR part 1048 pursuant to the voluntary certification program must meet the requirements in Table 4 to this subpart as well as the standards in 40 CFR 1048.101.

(c) For manufacturers of stationary SI internal combustion engines participating in the voluntary certification program and certifying engines to Table 1 to this subpart, Table 4 to this subpart shows which parts of the mobile source provisions in 40 CFR parts 1048, 1065, and 1068 apply to you. Compliance with the deterioration factor provisions under 40 CFR 1048.205(n) and 1048.240 will be required for engines built new on and after January 1, 2010. Prior to January 1, 2010, manufacturers of stationary internal combustion engines participating in the voluntary certification program have the option to develop their own deterioration factors based on an engineering analysis.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

Definitions

§60.4248 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 SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105, 40 CFR 1054.107, and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first. You may request in your application for certification that we approve a shorter certified emissions life for an engine family. We may

approve a shorter certified emissions life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter certified emissions life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The certified emissions life value may not be shorter than any of the following:

(i) 1,000 hours of operation.

(ii) Your recommended overhaul interval.

(iii) Your mechanical warranty for the engine.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.

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.

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 carbon dioxide (CO_2).

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 §60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4243(d), 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 §60.4243(d).

(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 §60.4243(d)(2)(ii) or (iii) and §60.4243(d)(3)(i).

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

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.

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

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.

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

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 CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining or natural gas production.

Manufacturer has the meaning given in section 216(1) of the Clean Air 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 resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

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”).

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.

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.

Pipeline-quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

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 June 12, 2006, 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.

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 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 compression ignition 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.

Stationary internal combustion engine test cell/stand means an engine test cell/stand, as defined in 40 CFR part 63, subpart PPPPP, that tests stationary ICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Subpart means 40 CFR part 60, subpart JJJJ.

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.

Volatile organic compounds means volatile organic compounds as defined in 40 CFR 51.100(s).

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in §60.4231(d) or (e), as applicable.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 76 FR 37974, June 28, 2011; 78 FR 6698, Jan. 30, 2013]

Table 1 to Subpart JJJJ of Part 60—NO_x, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards[a]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_x	CO	VOC[d]	NO_x	CO	VOC[d]
Non-Emergency SI Natural Gas[b] and Non-Emergency SI Lean Burn LPG[b]	100≤HP<500	7/1/2008	2.0	4.0	1.0	160	540	86
		1/1/2011	1.0	2.0	0.7	82	270	60
Non-Emergency SI Lean Burn Natural Gas and LPG	500≤HP<1,350	1/1/2008	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP<1,350)	HP≥500	7/1/2007	2.0	4.0	1.0	160	540	86
	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60
Landfill/Digester Gas (except lean	HP<500	7/1/2008	3.0	5.0	1.0	220	610	80

burn 500≤HP<1,350)								
		1/1/2011	2.0	5.0	1.0	150	610	80
	HP≥500	7/1/2007	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Landfill/Digester Gas Lean Burn	500≤HP<1,350	1/1/2008	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Emergency	25<HP<130	1/1/2009	[c]10	387	N/A	N/A	N/A	N/A
	HP≥130		2.0	4.0	1.0	160	540	86

[a]Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O_2.

[b]Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

[c]The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x + HC.

[d]For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[76 FR 37975, June 28, 2011]

Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244.	a. limit the concentration of NO_x in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, 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 *and* 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. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)[ae]	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_x concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D	(c) Measurements to determine moisture must be made at the same time as the measurement for NO_xconcentration.

		location; and	6348-03[e]	
		v. Measure NO_x at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005)[ae], Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03[e]	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for 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 *and* 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. Determine the	(2) Method 3, 3A,	(b) Measurements to

		O_2concentration of the stationary internal combustion engine exhaust at the sampling port location;	or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)[ae]	determine O_2 concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03[e]	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
		v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005)[ae], Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03[e]	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for VOC, 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 and 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. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)[ae]	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.

		location; and	6348-03[e]	
		v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6[cd], Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03[e]	(d) Results of this test consist of the average of the three 1-hour or longer runs.

[a]Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

[b]You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O_2 content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17

[c]You may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (*http://www.epa.gov/ttn/emc/prelim/otm11.pdf*).

[d]You may use ASTM D6420-99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic. ASTM D6420-99(2004) incorporated by reference; see 40 CFR 60.17.

[e]Incorporated by reference; see 40 CFR 60.17.

[79 FR 11253, Feb. 27, 2014]

Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ

[As stated in §60.4246, 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 §60.4248.
§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 §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§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	

Table 4 to Subpart JJJJ of Part 60—Applicability of Mobile Source Provisions for Manufacturers Participating in the Voluntary Certification Program and Certifying Stationary SI ICE to Emission Standards in Table 1 of Subpart JJJJ

[As stated in §60.4247, you must comply with the following applicable mobile source provisions if you are a manufacturer participating in the voluntary certification program and certifying stationary SI ICE to emission standards in Table 1 of subpart JJJJ]

Mobile source provisions citation	Subject of citation	Applies to subpart	Explanation
1048 subpart A	Overview and Applicability	Yes	
1048 subpart B	Emission Standards and Related Requirements	Yes	Except for the specific sections below.
1048.101	Exhaust Emission Standards	No	
1048.105	Evaporative Emission Standards	No	
1048.110	Diagnosing Malfunctions	No	
1048.140	Certifying Blue Sky Series Engines	No	
1048.145	Interim Provisions	No	
1048 subpart C	Certifying Engine Families	Yes	Except for the specific sections below.
1048.205(b)	AECD reporting	Yes	
1048.205(c)	OBD Requirements	No	
1048.205(n)	Deterioration Factors	Yes	Except as indicated in 60.4247(c).
1048.205(p)(1)	Deterioration Factor Discussion	Yes	
1048.205(p)(2)	Liquid Fuels as they require	No	
1048.240(b)(c)(d)	Deterioration Factors	Yes	
1048 subpart D	Testing Production-Line Engines	Yes	
1048 subpart E	Testing In-Use Engines	No	
1048 subpart F	Test Procedures	Yes	
1065.5(a)(4)	Raw sampling (refers reader back to the specific emissions regulation for guidance)	Yes	
1048 subpart G	Compliance Provisions	Yes	
1048 subpart H	Reserved		
1048 subpart I	Definitions and Other Reference	Yes	

	Information		
1048 appendix I and II	Yes		
1065 (all subparts)	Engine Testing Procedures	Yes	Except for the specific section below.
1065.715	Test Fuel Specifications for Natural Gas	No	
1068 (all subparts)	General Compliance Provisions for Nonroad Programs	Yes	Except for the specific sections below.
1068.245	Hardship Provisions for Unusual Circumstances	No	
1068.250	Hardship Provisions for Small-Volume Manufacturers	No	
1068.255	Hardship Provisions for Equipment Manufacturers and Secondary Engine Manufacturers	No	

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to 3M Company - 3M Industrial Mineral Products Division, P.O. Box 165860, Little Rock, AR, 72216, on this 8th day of January, 2017.

Cynthia Hook, ASIII, Office of Air Quality