

# ADEQ OPERATING AIR PERMIT

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

Permit No. : 0039-AOP-R9  
Renewal #1

IS ISSUED TO:  
3M Industrial Mineral Products Division  
Highway 365 and Walters Dr.  
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:

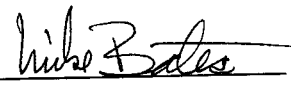
May 8, 2007

AND

May 7, 2012

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

Signed:

  
Mike Bates  
Chief, Air Division

July 2, 2009  
\_\_\_\_\_  
Date

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#### List of Acronyms and Abbreviations

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

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## SECTION I: FACILITY INFORMATION

PERMITTEE: 3M Industrial Mineral Products Division

AFIN: 60-00003

PERMIT NUMBER: 0039-AOP-R9

FACILITY ADDRESS: Highway 365 and Walters Dr.  
Little Rock, AR 72216

MAILING ADDRESS: P.O. Box 165860  
Little Rock, AR 72216

COUNTY: Pulaski

CONTACT POSITION: Allen Johnson

TELEPHONE NUMBER: (501) 490-1509

REVIEWING ENGINEER: Nelia Sandoval

UTM North South (Y): Zone 15: 3840.8, 3839.0

UTM East West (X): Zone 15: 569.7, 564.8

## **SECTION II: INTRODUCTION**

### **Summary of Permit Activity**

3M Industrial Mineral Products Division (60-00003) operates a facility located at Highway 365 and Walters Dr., Little Rock, AR 72216. This facility has submitted an application 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). The facility also requests 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. Finally, multiple sources have been modified to reflect controls in place and/or use throughput data and emission factors. The permitted emission decreases are: 34.3 tpy of PM and 98.2 tpy of PM<sub>10</sub>.

### **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.

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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<sub>10</sub>), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), 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.

#### Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective January 25, 2009
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective July January 25, 2009
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective January 25, 2009
40 CFR Part 64 – Compliance Assurance Monitoring

This facility is not subject to requirements of the *New Source Performance Standards* (NSPS), 40 CFR Part 60, Subpart OOO, because the mineral processed at the facility has been determined to be not a listed non-metallic mineral in Subpart OOO. The material contains less than 50% of any of the listed components that constitute a non-metallic mineral. See Appendix B.

The facility is not currently subject to *New Source Performance Standards* (NSPS), 40 CFR Part 60, Subpart UUU, because affected equipment was installed before the effective date of April 23, 1986.

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The facility is considered a "major source" for Title V and PSD purposes. This facility is subject to applicable portions of the Prevention of Significant Deterioration (PSD) portion of the federal New Source Review (NSR) program. Currently, the facility is not subject to PSD review because no related modifications have increased PM rates by greater than 25 tpy or PM<sub>10</sub> rates by greater than 15 tpy. If the permittee makes related modifications that exceed significant levels of regulated pollutants, the facility will be required to undergo PSD review for the new equipment. 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

EMISSION SUMMARY			
Source Number	Description	Pollutant	Plantwide Emission Rates
			tpy
Total Allowable Emissions		PM	676.2
		PM <sub>10</sub>	443.3
		SO <sub>2</sub>	61.1
		VOC	5.9
		CO	139.5
		NO <sub>x</sub>	118.4
		Lead	0.09493
HAPs		Arsenic*	0.0062
		Beryllium*	0.0002
		Cadmium*	0.0064
		Chromium*	1.3675
		Cobalt*	0.2349
		Manganese*	0.0629
		PCB*	0.0253

\*HAPs included in the VOC or PM 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 coloring 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



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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<sub>10</sub> by 1.71 tons per year (tpy), NO<sub>x</sub> by 43.36 tpy, increases of SO<sub>2</sub> 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<sub>10</sub>.

Permit #0039-AOP-R7 was a Title V permit renewal; it updated emission factors, corrected moisture content for storage pile emissions, and corrected emission calculations for SN-55. The

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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 10, 2007. 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<sub>10</sub>.

#### SECTION IV: SPECIFIC CONDITIONS

SN-03, 07, 09, 60, 31, and 33  
Crushers – Arch St.

##### Source Description

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

\*These two crushers operate in parallel with each other and keep one emission limit.

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 or alternatively, with respect to the tertiary crushers, a baghouse, if necessary, to control emissions.

##### Specific Conditions

1. From the sources listed above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Conditions 4 and 5. [Regulation 19, §19.501 et seq., effective July 15, 2007 and 40 CFR Part 52, Subpart E]
2. From the sources listed 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 4 and 5. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
3. The permittee shall not exceed the opacity limits in the following table. Compliance shall be demonstrated by compliance with Specific Condition 4.

SN	Limit	Regulatory Citation
07, 09, 60	20%	§19.503
03, 31, 33	40%	§19.503

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4. 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. This requirement does not apply to equipment SN-30 through SN-33 (Tertiary Crushers and Screens) during operation of SN-01 (Tertiary Crushing and Screening Circuit Baghouse). [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
5. The permittee shall not process more than 3,000,000 tons of material at the Arch Street unit per twelve consecutive months. [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 Part §70.6]
6. The permittee shall maintain monthly records demonstrating compliance with Specific Condition 5. 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 and 40 CFR Part 52, Subpart E]

SN-01

Tertiary Crushing and Screening Circuit Baghouse – Arch St.

Source Description

Operation of this source is considered an alternate scenario to operation of equipment with this baghouse off. During periods when this source is not operating, the crushing and screening equipment must employ proper wet suppression, foam dust suppressant, or a combination of each.

Specific Conditions

7. The permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Condition 5. [Regulation 19, §19.501 and 40 CFR Part 52]
8. From SN-01, 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 5. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
9. During periods when SN-01 is operating, the permittee shall not exceed 5% opacity as measured by EPA Reference Method 9. [Regulation 18, §18.501 and 40 CFR Part 52, Subpart E]
10. The permittee shall conduct weekly observations of opacity at SN-01:

The visible emission observations shall be used as a method of compliance verification for the 5% opacity limit at each baghouse. The observations shall be conducted by personnel familiar with the facility's visible emissions. If during the weekly observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:

- a. Take immediate action to identify the cause of the visible emissions.
  - b. Implement all necessary corrective action.
  - c. Reassess the visible emissions after corrective action is taken.
- i. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9. This reading shall be conducted by personnel trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
  - ii. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.

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The permittee shall maintain weekly records related to all visible emission observations and Method 9 readings. The records shall be kept on site and made available to Department personnel upon request. The records shall contain the following items:

- a. The date and time of each observation/reading.
- b. Any observance of visible emissions appearing to be above permitted limits, or any Method 9 reading which indicates exceedance.
- c. Any observance of visible emissions appearing to be above permitted limits, or any Method 9 reading which indicates exceedance.
- d. The name of the person conducting the observation/reading.

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

SN-02, 04, 05, 10-16, 19, 20, 28, 29, 59, 61, and 62  
Conveyor Transfer Points – Arch St.

Source Description	
SN	Description
02	Transfer Tower
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
61	Conveyor No. 45
62	Conveyor No. 46

Each of the sources listed above is a point of transfer from one conveyor 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

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<sub>10</sub> and lead. Compliance with this condition shall be demonstrated by compliance with Specific Conditions 4 and 5. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
12. 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 4 and 5. [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 the opacity limits in the following table. Compliance shall be demonstrated by compliance with Specific Condition 4.

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SN	Limit	Regulatory Citation
2, 12, 13, 16, 19, 20, 28, 29, 59, 61, 62	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

14. 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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Conditions 4 and 5. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
15. 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 4 and 5. [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 any screen at Arch Street. Compliance shall be demonstrated by Specific Condition 4. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

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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

17. For SN-18 and SN-58, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Conditions 4 and 5. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
18. 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 4 and 5. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
19. The permittee shall not exceed an opacity of 40% from SN-18 or SN-58. Compliance shall be demonstrated by Specific Condition 4. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

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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

20. For SN-17 and SN-57, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Conditions 4 and 5. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
21. 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 4 and 5. [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<sub>x</sub>, and NO<sub>x</sub>. 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

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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Conditions 4 and 5. [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 4 and 5. [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 an opacity of 40% from any miscellaneous quarrying activity at Arch Street. Compliance shall be demonstrated by Specific Condition 4. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

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SN-101-106, 108, 110-113, 116-119, 124, 153, 211, 214, and 311  
 Baghouses – College Station

Source Description

SN	Description	Nameplate Maximum Capacity (SCFM)
101	Dryer Feed End 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	10,600
108	Dryer No. 1 Baghouse	44,832
110	No. 7 Filler Tank Baghouse	2,977
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	IC Circuit 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

25. 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<sub>10</sub>, SO<sub>2</sub>, VOC, CO, NO<sub>x</sub>, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 30, 32, and 33. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
26. 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 30 and 34. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
27. 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]
28. 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]
29. The permittee shall conduct weekly observations of opacity for each of the College Station Baghouse except SN-214:

The visible emission observations shall be used as a method of compliance verification for the 5% opacity limit at each baghouse (or 20% for SN-111, 112, 113, 116). The observations shall be conducted by personnel familiar with the facility's visible emissions. If during the weekly observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:

- a. Take immediate action to identify the cause of the visible emissions.
- b. Implement all necessary corrective action.
- c. Reassess the visible emissions after corrective action is taken.
  - i. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9. This reading shall be conducted by personnel trained and certified in the reference method. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
  - ii. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.

The permittee shall maintain weekly records related to all visible emission observations and Method 9 Readings. The records shall be kept on site and made available to Department personnel upon request. The records shall contain the following items:

- a. The date and time of each observation/reading.

- b. Any observance of visible emissions appearing to be above permitted limits, or any Method 9 reading which indicates exceedance.
- c. The name of the person conducting the observation/reading.

[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]

- 30. 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]
- 31. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition 30. 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]
- 32. 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]
- 33. 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]
- 34. 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

- 35. The permittee shall maintain monthly records to demonstrate compliance with Specific Conditions 32, 33, and 34. 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]

36. The permittee will perform a one time test of the IC Circuit Baghouse (SN-214) for PM and PM<sub>10</sub>. The PM test will be performed using EPA Reference Method 5. The PM<sub>10</sub> test will be performed using either EPA Reference Method 201A or 5. By using Method 5 for PM<sub>10</sub>, the facility will assume that all collected particulate is PM<sub>10</sub>. These tests will be conducted in accordance with Plantwide Condition 3. During the tests, the equipment feeding the silos connected with the baghouse must be operated within 10% of its maximum permitted hourly operating capacity. [Regulation No. 19 §19.702 and 40 CFR Part 52 Subpart E]
37. The permittee will perform a one time test of Baghouse SN-101-SN-106, 124, and 153 at the facility for PM and PM<sub>10</sub>. The PM test will be performed using EPA Reference Method 5. The PM<sub>10</sub> test will be performed using either EPA Reference Method 201A or 5. By using Method 5 for PM<sub>10</sub>, the facility will assume that all collected particulate is PM<sub>10</sub>. These tests will be conducted in accordance with Plantwide Condition 3. During the tests, the equipment feeding the silos connected with the baghouse must be operated within 10% of its maximum permitted hourly operating capacity. If the baghouse is not tested within this range, the permittee shall be limited to operating within 10% above the tested rate. The Department reserves the right to select the baghouse(s) to be tested. [Regulation No. 19 §19.702 and 40 CFR Part 52 Subpart E]
38. The permittee shall conduct daily observations of opacity for SN-214. The visible emission observations shall be used as a method of compliance verification for the 5% opacity limit at the baghouse. The observations shall be conducted by personnel trained and certified in EPA Reference Method 9. If during the daily observations, visible emissions are detected which appear to be in excess of the permitted opacity limit, the permittee shall:
- a. Take immediate action to identify the cause of the visible emissions.
  - b. Implement all necessary corrective action.
  - c. Reassess the visible emissions after corrective action is taken.
    - i. If excessive visible emissions are still detected, an opacity reading shall be conducted in accordance with EPA Reference Method 9. If the opacity reading exceeds the permitted limit, further corrective measures shall be taken.
    - ii. If no excessive visible emissions are detected, the incident shall be noted in the records as described below.

The permittee shall maintain daily records related to all Method 9 Readings for SN-214. The records shall be kept on site and made available to Department personnel upon request. The records shall contain the following items:

- a. The date and time of each reading.
- b. Any Method 9 reading which indicates exceedance.
- c. The name of the person conducting the reading.

[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-115, 154, and 155  
Cooler Scrubbers – College Station

Source Description

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

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<sub>10</sub>, SO<sub>2</sub>, VOC, CO, NO<sub>x</sub>, 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. From the sources listed in table above, the permittee shall not exceed an opacity of 20% measured by EPA Reference Method 9. [Regulation 18, §18.501 and 40 CFR Part 52, Subpart E]
42. 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]
43. 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]

SN-114, 128, and 129  
Mixer Scrubbers – 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

44. 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<sub>10</sub>, SO<sub>2</sub>, VOC, CO, NO<sub>x</sub>, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 46, 47, and 48. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
45. 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]
46. From the sources listed in table above, the permittee shall not exceed an opacity of 20% measured by EPA Reference Method 9. [Regulation 18, §18.501 and 40 CFR Part 52, Subpart E]
47. 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]
48. The permittee will perform a one time test of Scrubbers SN-114, 128, and 129 at the facility for PM and PM<sub>10</sub>. The PM test will be performed using EPA Reference Method 5. The PM<sub>10</sub> test will be performed using either EPA Reference Method 201A or 5. By using Method 5 for PM<sub>10</sub>, the facility will assume that all collected particulate is PM<sub>10</sub>. These tests will be conducted in accordance with Plantwide Condition 3. During the tests, the equipment feeding the silos connected with the scrubbers must be operated within 10% of its maximum permitted hourly operating capacity. If the scrubbers are not tested within this range, the permittee shall be limited to operating within 10% above the tested rate. [Regulation No. 19 §19.702 and 40 CFR Part 52 Subpart E]

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SN-107, 109, 156-176, 183-184, 212, 213, 215, 216, 310, 401-427  
 Conveyor Transfer Points – College Station

Source Description

SN	Description
107	Feeders at Raw Stockpile
109	Conveyer J.B.
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
176	Conveyer 31A (Sodium Silicate Plant)
183	Pugmill at Waste Silo #4
184	Pugmill at Waste Silo #4
212	Conveyer 43
213	Conveyer 44
215	Kiln Dust Conveyer No. 27
216	Transfer Conveyer No. 28
310	Truck /Railcar Loading Conveyer
401	C-101 Screen Feed Conveyer
402	C-102 Screens Feed Conveyer
403	C-103 Screens Feed Conveyer
404	C-104 Screens Feed Conveyer
405	C-105 Screens Feed Conveyer
406	C-106 Screens Feed Conveyer
407	C-107 Screens Feed Conveyer

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SN	Description
408	C-108 Screens Feed Conveyor
409	C-109 Screens Feed Conveyor
410	C-110 Screens Feed Conveyor
411	C-111 Screens Feed Conveyor
412	C-112 Screens Feed Conveyor
413	C-113 Screens Feed Conveyor
414	C-114 Screens Feed Conveyor
415	C-115 Screens Feed Conveyor
416	C-116 Screens Feed Conveyor
417	C-117 Screens Feed Conveyor
418	C-118 Screens Feed Conveyor
419	C-119 Screens Feed Conveyor
420	C-120 Screens Feed Conveyor
421	C-121 Screens Feed Conveyor
422	C-122 Screens Feed Conveyor
423	C-123 Screens Feed Conveyor
424	C-124 Screens Feed Conveyor
425	C-125 Screens Feed Conveyor
426	C-126 Screens Feed Conveyor
427	C-127 Screens Feed Conveyor

Specific Conditions

49. 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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Condition 52. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
50. 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 52. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
51. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 52. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Opacity Limit
109, 164, 167-172, 184, 212, 213, 216, 401-427	20%
107, 156-163, 165, 166, 173-176, 183, 215, 310	40%

52. 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]
53. The permittee shall use water and/or non-hazardous chemical sprays as needed or other methods to minimize emissions from Conveyor No. 1 and Conveyor 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]
54. The permittee shall not operate in a manner such that fugitive emissions from Conveyor No. 1 and Conveyor 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]
55. Daily observations of the opacity from Conveyor No. 1 and Conveyor No. 2 (SN-156 & SN-157) shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall maintain personnel trained in (but not necessarily certified in) EPA Reference Method 9. If visible emissions are detected, the permittee shall take action to identify the cause of the visible emissions, implement corrective action, and document if visible emissions were present following the corrective action. If visible emissions are still present following the corrective action, the permittee shall document that 'visible emissions do not appear to be in excess of 5% opacity and shall document that visible emissions did not cause a nuisance off-site. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [Regulation 19, §19.503, and 40 CFR Part 52, Subpart E]
  - a. The date and time of the observation;
  - b. If visible emissions were detected;
  - c. If visible emissions were detected, the cause of the visible emissions, the corrective action taken, and if the visible emissions were present following the corrective action;
  - d. If visible emissions were present following the corrective action, document that the visible emissions do not appear to be in excess of 20% opacity and document that the visible emissions do not cause a nuisance off-site; and
  - e. The name of the person conducting the opacity observations.

SN-131-135 and 428-431  
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%
428	Screen 1 (S-1)	20%
429	Screen 2 (S-2)	20%
430	Screen 3 (S-3)	20%
431	Screen 4 (S-4)	20%

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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Condition 52. [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 52. [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 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 52. [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 186-191  
 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
191	Bucket Elevator No. 27 (Sodium Silicate)

Specific Conditions

59. 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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Condition 52. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
60. 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 52. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
61. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 52. [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, 191	40%

SN-199-210, 303, 307, 308, 438-440  
 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
438	Screen Feed Bin
439	Crushers Feed Bin
440	11 Grade Bin

Specific Conditions

62. 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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Condition 52. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
63. 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 52. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
64. 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]
65. 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



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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]

66. Daily observations of the opacity from the Raw Stockpile (SN-308) shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall maintain personnel trained in (but not necessarily certified in) EPA Reference Method 9. If visible emissions are detected, the permittee shall take action to identify the cause of the visible emissions, implement corrective action, and document if visible emissions were present following the corrective action. If visible emissions are still present following the corrective action, the permittee shall document that visible emissions do not appear to be in excess of 5% opacity and shall document that visible emissions did not cause a nuisance off-site. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [Regulation 19, §19.503, and 40 CFR Part 52, Subpart E]
- a. The date and time of the observation;
  - b. If visible emissions were detected;
  - c. If visible emissions were detected, the cause of the visible emissions, the corrective action taken, and if the visible emissions were present following the corrective action;
  - d. If visible emissions were present following the corrective action, document that the visible emissions do not appear to be in excess of 20% opacity and document that the visible emissions do not cause a nuisance off-site; and
  - e. The name of the person conducting the opacity observations

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SN-194, 195, 300-302, 304, 306, 312, 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
304	Train Car Unloading – Sodium Silicate
306	Plant Vehicle Traffic including Baghouse Waste Haul Off
312	Truck Loading at Coloring Batch Mixer
313	Truck Loading at Copper Dust Loadout

Specific Conditions

67. 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<sub>10</sub> and lead. Compliance shall be demonstrated by compliance with Specific Condition 52. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
68. 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 52. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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SN-120, 130, 176, 191, and 304  
Sodium Silicate Plant – College Station

Source Description

SN	Description
120	Sodium Silicate Bin
130	Sodium Silicate Plant Boiler
176	Conveyer 31A
191	Bucket Elevator 27
304	Train Car Unload - Sodium Silicate

Sources 120 and 130 are decommissioned equipment. Both pieces of equipment were used in the sodium silicate section of the College Station Plant. 3M currently uses a form of sodium silicate in liquid form; therefore, this equipment is not operating. If the equipment is brought back into service, a permit modification will be required to permit emissions from these sources. Other equipment listed in the table above is currently in operation.

Specific Conditions

69. 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<sub>10</sub>, SO<sub>2</sub>, VOC, CO, NO<sub>x</sub>, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 52 and 71. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
70. 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 52 and 71. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
71. The permittee shall not operate sources SN-120 or SN-130 at any time without a permit modification to incorporate the emission rates for these sources. [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]

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SN-111-113, 115, 121-123, 131-135, 154, 155, 158-172, 176, 186-191, 194, 195, 199-210, 304,  
 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
176	Conveyer 31A (Sodium Silicate Plant)
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 Elevator No. 27 (Sodium Silicate)

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SN	Description
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
304	Train Car Unload (Sodium Silicate)
311	Automated Mixing System Baghouse

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

72. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for 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 and by compliance with Specific Condition 73. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
73. The permittee shall not exceed the following HAP content limits:

HAP	Limit
Lead Compounds	0.024 lb/ton (0.0012% by weight)
Chromium Compounds	6.5 lb/ton (0.325% by weight)
Manganese Compounds	0.3 lb/ton (0.015% by weight)
Cobalt Compounds	4 lb/ton (0.2% by weight)

The permittee shall keep records demonstrating compliance with the finished granule composition limits. Records may be in the form of MSDS sheets, product labels, lab analyses, or calculations using Department approved methodology. Records shall be kept

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on-site and made available to Department personnel upon request. [Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-432 through SN-437  
 Crushers – College Station

Source Description

SN	Description
432	Crusher 1 (C-1)
433	Crusher 2 (C-2)
434	Crusher 3 (C-3)
435	Crusher 4 (C-4)
436	Crusher 5 (C-5)
437	Crusher 6 (C-6)

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

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<sub>10</sub> and lead. 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 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 77. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
76. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 77. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Opacity Limit
432-437	20%

77. Throughout the College Station Plant, 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]

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

3M is in compliance with the applicable regulations cited in the permit application. 3M will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.



## SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Regulation 19, §19.410(B) and 40 CFR Part 52, Subpart E]
3. The permittee must test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. The permittee must provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
  - 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.
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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## SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated July 28, 2006.

Description	Category
550 Gallon Gasoline Tank (Arch Street)	A-13
12,000 Gallon Diesel Tank (College Station)	A-13
270 Gallon Gasoline 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 (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26, §26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, et seq. (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation 26, §26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
  - a. The date, place as defined in this permit, and time of sampling or measurements;
  - b. The date(s) analyses performed;
  - c. The company or entity performing the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of such analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.

[40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below:

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

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

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

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

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

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

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §26.701(F)(1)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]
12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26, §26.701(G)]
16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation 26, §26.701(H)]
17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]
19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]
20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §26.703(B)]
  - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

- d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.
21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26, §26.703(E)(3)]
- a. The identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status;
  - c. Whether compliance was continuous or intermittent;
  - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
  - e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [Regulation 26, §26.704(C)]
- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
  - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
  - d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
- a. Such an extension does not violate a federal requirement;
  - b. The permittee demonstrates the need for the extension; and
  - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

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

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

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

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

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



SN	Source Description	Total PM (tons/yr)	PM <sub>10</sub> (tons/yr)	NO <sub>x</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	lead (tons/yr)	cl (t)
1	Tertiary Crusher Baghouse	11.30	11.30						
2	Transfer Tower	0.21	0.07						
3	Traylor Primary Crusher	1.10	0.90						
4	Traylor Crusher Surge Bin	0.21	0.07						
5	No. 20 Conveyor	0.21	0.07						
6	Primary Screen	3.30	1.20						
7	A.C. Primary Crusher	1.10	0.90						
8	Primary Screen	3.52	1.20						
9	Cone Secondary Crusher	1.10	0.90						
10	No. 1 Crusher	0.21	0.07						
11	Transfer Station	0.21	0.07						
12	Load Out Bin	0.21	0.07						
13	Load Out Bin	0.21	0.07						
14	No. 3 Conveyor	0.21	0.07						
15	No. 3A Conveyor	0.21	0.07						
16	A.C. Crusher Surge Bin	0.21	0.07						
17	Tertiary Crushing Stock Pile	0.50	0.50						
18	Railroad Loadout	0.21	0.07						
19	Feeders	0.21	0.07						
20	No. 4 Conveyor	0.21	0.07						
28	No. 5 Conveyor	0.21	0.07						
29	No. 6 Conveyor	0.21	0.07						
30	Screen	3.30	1.20						
31	Crusher	1.80	0.90						
32	Screen	3.30	1.20						
33	Crusher	1.80	0.90						
50	Overburden Removal	18.00	9.00						
51	Drilling	0.30	0.20						
52	Blasting	0.12	0.12						
53	Blasting Explosives (ANFO)			12.80	1.50		50.3		
54	Quarry Truck Loading	0.40	0.20						
55	Quarry Truck Traffic	2.20	2.20						

SN	Source Description
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
109	JB Conveyor
110	No. 7 Filler Tank (BH)
111	No. 1 Kiln Baghouse
112	No. 2 Kiln Baghouse
113	No. 3 Kiln Baghouse
114	No. 2 Mixer (Scrubber)
115	No. 1 Cooler (Scrubber)
116	Dryer No. 2 Baghouse
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)
129	No. 1 Mixer (Scrubber)
130	Sodium Silicate Plant Boiler

[illegible]

SN	Source Description	Total PM (tons/yr)	PM <sub>10</sub> (tons/yr)	NO <sub>x</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	lead (tons/yr)	c
131	Screen No. 25	0.80	0.25					9.41E-06	;
132	Screen No. 26	0.80	0.25					9.41E-06	;
133	Screen No. 29	0.80	0.25					9.41E-06	;
134	Screen No. 28	0.80	0.25					9.41E-06	;
135	Screen No. 27	0.80	0.25					9.41E-06	;
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)	1.3	0.4						
154	No. 2 Cooler (Scrubber)	21.00	21.00					2.47E-04	;
155	No. 3 Cooler (Scrubber)	21.00	21.00					2.47E-04	;
156	Conveyor No. 1	0.21	0.07						
157	Conveyor No. 2	0.21	0.07						
158	Transfer Conveyor No. 20	0.092	0.040					1.08E-06	;
159	Transfer Conveyor No. 21	0.092	0.040					1.08E-06	;
160	Transfer Conveyor No. 22	0.070	0.030					8.23E-07	;
161	Transfer Conveyor No. 23	0.25	0.09					2.94E-06	;
162	Transfer Conveyor No. 24	0.25	0.09					2.94E-06	;
163	Transfer Conveyor No. 25	0.120	0.040					1.41E-06	;
164	Transfer Conveyor No. 33	0.200	0.080					2.35E-06	;
165	Transfer Conveyor No. 34	0.25	0.09					2.94E-06	;
166	Transfer Conveyor No. 35	0.25	0.09					2.94E-06	;
167	Transfer Conveyor No. 36	0.120	0.040					1.41E-06	;
168	Transfer Conveyor No. 37	0.120	0.040					1.41E-06	;
169	Transfer Conveyor No. 39	0.25	0.09					2.94E-06	;
170	Transfer Conveyor No. 40	0.25	0.09					2.94E-06	;
171	Transfer Conveyor No. 41	0.25	0.09					2.94E-06	;
172	Transfer Conveyor No. 42	0.25	0.09					2.94E-06	;
173	Conveyor No. 15	2.00	0.80						
174	Conveyor No. 16	2.00	0.80						
175	Conveyor No. 31	0.070	0.030						
176	Conveyor No. 31A (Silicate Plant)	0.40	0.20					4.70E-06	
183	Pugmill	0.16	0.06						

SN	Source Description
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 Elev. No. 27 (Silicate Plt.)
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
213	Conveyor No. 44
214	IC Circuit Baghouse
215	Klin 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

[illegible]

SN	Source Description	Total PM (tons/yr)	PM <sub>10</sub> (tons/yr)	NO <sub>x</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	lead (tons/yr)
307	Temporary Storage Stockpile Drop	3.10	3.10					
308	Raw Stockpile	1.0	0.5					
310	Truck/Railcar Loading	0.40	0.20					
311	Automated Mixing System	7.90	7.90					9.29E-05
312	Truck Loading-Coloring Batch Mixer	0.1	0.1					
313	Truck Loading-Copper Dust Loadout	0.1	0.1					
401	C-101 Feed Conveyor Main Plant	0.31	0.100					3.65E-06
402	C-102 Screens Feed Conveyor	0.20	0.07					2.35E-06
403	C-103 Screens Feed Conveyor	0.20	0.07					2.35E-06
404	C-104 Under Screen Conveyor	0.04	0.02					4.70E-07
405	C-105 Under Screen Conveyor	0.04	0.02					4.70E-07
406	C-106 Under Screen Conveyor	0.04	0.02					4.70E-07
407	C-107 Under Screen Conveyor	0.04	0.02					4.70E-07
408	C-108 Screen Overs Conveyor	0.31	0.10					3.65E-06
409	C-109 Crusher Feed Bin Conveyor	0.31	0.10					3.65E-06
410	C-110 Crusher Feed Conveyor	0.06	0.02					7.06E-07
411	C-111 Crusher Feed Conveyor	0.06	0.02					7.06E-07
412	C-112 Crusher Feed Conveyor	0.06	0.02					7.06E-07
413	C-113 Crusher Feed Conveyor	0.06	0.02					7.06E-07
414	C-114 Crusher Feed Conveyor	0.06	0.02					7.06E-07
415	C-115 Crusher Feed Conveyor	0.06	0.02					7.06E-07
416	C-116 Crusher Discharge Conveyor	0.20	0.07					2.35E-06
417	C-117 Crusher Discharge Conveyor	0.20	0.07					2.35E-06
418	C-118 Collecting Conveyor	0.31	0.10					3.65E-06
419	C-119 Transfer Conveyor	0.31	0.10					3.65E-06
420	C-120 Screen Feed Bin Return Con	0.31	0.10					3.65E-06
421	C-121 Screen Thru Collect Con	0.20	0.07					2.35E-06
422	C-122 Wet Classification Conveyor	0.20	0.07					2.35E-06
423	C-123 Transfer Conveyor	0.10	0.04					1.18E-06
424	C-124 Waste Stacking Conveyor	0.20	0.07					2.35E-06
425	C-125 Transfer Conveyor	0.20	0.07					2.35E-06
426	C-126 Day Bin Feed Conveyor	0.20	0.07					2.35E-06
427	C-126 Day Bin Discharge Conveyor	0.30	0.10					3.53E-06

SN	Source Description
428	S-1 Screen
429	S-2 Screen
430	S-3 Screen
431	S-4 Screen
432	C1 Crusher 1
433	C2 Crusher 2
434	C3 Crusher 3
435	C4 Crusher 4
436	C5 Crusher 5
437	C6 Crusher 6
438	Screen Feed Bin
439	Crusher Feed Bin
440	11 Grade Bin

Total Tons/year =

Total PM tons/yr	PM <sub>10</sub> (tons/yr)	NO <sub>x</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	lead (tons/yr)	chromium (tons/yr)	manganese (tons/yr)	cobalt (tons/yr)	arsenic (tons/yr)	cadmium (tons/yr)	PCB (tons/yr)	beryllium (tons/yr)
0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
0.30	0.10					3.53E-06	9.65E-04	4.50E-05	1.68E-04				
0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
76.21	443.34	118.40	61.10	5.90	139.50	0.09493	1.3675	0.0629	0.2349	0.0062	0.0064	0.0253	0.0002

SN	Source Description	Total PM (lbs/hr)	PM <sub>10</sub> (lbs/hr)	NO <sub>x</sub> (lbs/hr)	SO <sub>2</sub> (lbs/hr)	VOC (lbs/hr)	CO (lbs/hr)	lead (lbs/hr)	ch (lbs/hr)
1	Tertiary Crusher Baghouse	2.60	2.60						
2	Transfer Tower	0.22	0.08						
3	Traylor Primary Crusher	1.12	0.95						
4	Traylor Crusher Surge Bin	0.22	0.08						
5	No. 20 Conveyor	0.22	0.08						
6	Primary Screen	3.52	1.20						
7	A.C. Primary Crusher	1.12	0.95						
8	Primary Screen	3.52	1.20						
9	Cone Secondary Crusher	1.12	0.95						
10	No. 1 Crusher	0.22	0.08						
11	Transfer Station	0.22	0.08						
12	Load Out Bin	0.30	0.10						
13	Load Out Bin	0.30	0.10						
14	No. 3 Conveyor	0.22	0.08						
15	No. 3A Conveyor	0.22	0.08						
16	A.C. Crusher Surge Bin	0.22	0.08						
17	Tertiary Crushing Stock Pile	0.60	0.60						
18	Railroad Loadout	0.30	0.10						
19	Feeders	0.21	0.07						
20	No. 4 Conveyor	0.21	0.07						
28	No. 5 Conveyor	0.21	0.07						
29	No. 6 Conveyor	0.21	0.07						
30	Screen	1.70	0.60						
31	Crusher	0.90	0.50						
32	Screen	1.70	0.60						
33	Crusher	0.90	0.50						
50	Overburden Removal	3.00	1.50						
51	Drilling	0.30	0.20						
52	Blasting	4.70	4.70						
53	Blasting Explosives (ANFO)			13.60	1.60		53.6		
54	Quarry Truck Loading	0.40	0.20						
55	Quarry Truck Traffic	0.50	0.50						

SN	Source Description
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 Fir. (BH)
107	Feeders
108	Dryer No. 1 Baghouse
109	JB Conveyor
110	No. 7 Filler Tank (BH)
111	No. 1 Kiln Baghouse
112	No. 2 Kiln Baghouse
113	No. 3 Kiln Baghouse
114	No. 2 Mixer (Scrubber)
115	No. 1 Cooler (Scrubber)
116	Dryer No. 2 Baghouse
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)
129	No. 1 Mixer (Scrubber)
130	Sodium Silicate Plant Boiler

Total PM (lbs/hr)	PM <sub>10</sub> (lbs/hr)	NO <sub>x</sub> (lbs/hr)	SO <sub>2</sub> (lbs/hr)	VOC (lbs/hr)	CO (lbs/hr)	lead (lbs/hr)	chromium (lbs/hr)	manganese (lbs/hr)	cobalt (lbs/hr)	arsenic (lbs/hr)	cadmium (lbs/hr)	PCB (lbs/hr)	beryllium (lbs/hr)
0.60	0.60												
0.10	0.10												
0.22	0.08												
Bubbled w/ SN-09													
0.22	0.08												
0.22	0.08												
2.5	1.0												
6.9	2.4												
6.9	2.4												
6.9	2.4												
0.3	0.1												
0.3	0.1												
0.12	0.04												
7.70	7.70	10.14	24.80	0.40	6.00	2.00E-01	4.00E-02			1.85E-03	1.85E-03	7.40E-03	1.39E-05
0.12	0.04												
0.60	0.60												
4.30	4.30	7.20	16.80	0.30	4.20	5.06E-05	1.38E-02	6.45E-04	2.41E-03	1.80E-03	1.90E-03	7.40E-03	7.74E-06
4.30	4.30	7.20	16.80	0.30	4.20	5.06E-05	1.38E-02	6.45E-04	2.41E-03	1.80E-03	1.90E-03	7.40E-03	7.74E-06
4.30	4.30	7.20	16.80	0.30	4.20	5.06E-05	1.38E-02	6.45E-04	2.41E-03	1.80E-03	1.90E-03	7.40E-03	7.74E-06
1.6	1.6					2.12E-05	5.79E-03	2.70E-04	1.01E-03				
4.80	4.80					5.64E-05	1.54E-02	7.20E-04	2.69E-03				
4.30	4.30	2.90	6.80	0.20	1.70	2.00E-01	4.00E-02			1.90E-03	1.90E-03	7.40E-03	7.74E-06
0.30	0.30												
0.30	0.30												
0.30	0.30												
Decommissioned													
1.60	1.60												
1.60	1.60					1.88E-05	5.15E-03	2.40E-04	8.96E-04				
1.60	1.60					1.88E-05	5.15E-03	2.40E-04	8.96E-04				
0.3	0.1					1.88E-05	5.15E-03	2.40E-04	8.96E-04				
1.6	1.6					2.12E-05	5.79E-03	2.70E-04	1.01E-03				
1.6	1.6					2.12E-05	5.79E-03	2.70E-04	1.01E-03				
Decommissioned													



SN	Source Description	Total PM (lbs/hr)	PM <sub>10</sub> (lbs/hr)	NO <sub>x</sub> (lbs/hr)	SO <sub>2</sub> (lbs/hr)	VOC (lbs/hr)	CO (lbs/hr)	lead (lbs/hr)	ch (l)
131	Screen No. 25	0.17	0.06					2.00E-06	5.
132	Screen No. 26	0.17	0.06					2.00E-06	5.
133	Screen No. 29	0.17	0.06					2.00E-06	5.
134	Screen No. 28	0.17	0.06					2.00E-06	5.
135	Screen No. 27	0.17	0.06					2.00E-06	5.
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)	0.3	0.1						
154	No. 2 Cooler (Scrubber)	4.80	4.80					5.64E-05	1.
155	No. 3 Cooler (Scrubber)	4.80	4.80					5.64E-05	1.
156	Conveyor No. 1	0.12	0.04						
157	Conveyor No. 2	0.12	0.04						
158	Transfer Conveyor No. 20	0.021	0.007					2.47E-07	6.
159	Transfer Conveyor No. 21	0.021	0.007					2.47E-07	6.
160	Transfer Conveyor No. 22	0.014	0.005					1.65E-07	4.
161	Transfer Conveyor No. 23	0.06	0.02					7.06E-07	1.
162	Transfer Conveyor No. 24	0.06	0.02					7.06E-07	1.
163	Transfer Conveyor No. 25	0.026	0.009					3.06E-07	8.
164	Transfer Conveyor No. 33	0.042	0.014					4.94E-07	1.
165	Transfer Conveyor No. 34	0.06	0.02					7.06E-07	1.
166	Transfer Conveyor No. 35	0.06	0.02					7.06E-07	1.
167	Transfer Conveyor No. 36	0.026	0.009					3.06E-07	8.
168	Transfer Conveyor No. 37	0.026	0.009					3.06E-07	8.
169	Transfer Conveyor No. 39	0.06	0.02					7.06E-07	1.
170	Transfer Conveyor No. 40	0.06	0.02					7.06E-07	1.
171	Transfer Conveyor No. 41	0.06	0.02					7.06E-07	1.
172	Transfer Conveyor No. 42	0.06	0.02					7.06E-07	1.
173	Conveyor No. 15	0.50	0.20						
174	Conveyor No. 16	0.50	0.20						
175	Conveyor No. 31	0.014	0.005						
176	Conveyor No. 31A (Silicate Plant)	0.10	0.04					1.18E-06	3.
183	Pugmill	0.04	0.02						

SN	Source Description
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 Elev. No. 27 (Silicate Pit.
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 (B
212	Conveyor No. 43
213	Conveyor No. 44
214	IC Circuit Baghouse
215	Klin Dust Conveyor No. 27
216	Transfer Conveyor No. 28
300	Train Car Unload
301	Truck Loading at Pugmill
302	Mineral Unloading at Wet Stockp
303	Wet Stockpile Fugitives
304	Traincar Unloading (Silica)
306	Plant Vehicle Traffic/Haul Off



SN	Source Description	Total PM (lbs/hr)	PM <sub>10</sub> (lbs/hr)	NO <sub>x</sub> (lbs/hr)	SO <sub>2</sub> (lbs/hr)	VOC (lbs/hr)	CO (lbs/hr)	lead (lbs/hr)	cf
307	Temporary Storage Stockpile Drop	0.70	0.70						
308	Raw Stockpile	0.23	0.11						
310	Truck/Railcar Loading	0.09	0.04						
311	Automated Mixing System	1.80	1.80					2.12E-05	5
312	Truck Loading-Coloring Batch Mixer	0.1	0.1						
313	Truck Loading-Copper Dust Loadout	0.1	0.1						
401	C-101 Feed Conveyor Main Plant	0.07	0.023					8.23E-07	2
402	C-102 Screens Feed Conveyor	0.05	0.02					5.88E-07	1
403	C-103 Screens Feed Conveyor	0.05	0.02					5.88E-07	1
404	C-104 Under Screen Conveyor	0.01	0.01					8.23E-08	2
405	C-105 Under Screen Conveyor	0.01	0.01					8.23E-08	2
406	C-106 Under Screen Conveyor	0.01	0.01					8.23E-08	2
407	C-107 Under Screen Conveyor	0.01	0.01					8.23E-08	2
408	C-108 Screen Overs Conveyor	0.07	0.03					8.23E-07	2
409	C-109 Crusher Feed Bin Conveyor	0.07	0.03					8.23E-07	2
410	C-110 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6
411	C-111 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6
412	C-112 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6
413	C-113 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6
414	C-114 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6
415	C-115 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6
416	C-116 Crusher Discharge Conveyor	0.05	0.02					5.88E-07	6
417	C-117 Crusher Discharge Conveyor	0.05	0.02					5.88E-07	6
418	C-118 Collecting Conveyor	0.07	0.03					8.23E-07	6
419	C-119 Transfer Conveyor	0.07	0.03					8.23E-07	6
420	C-120 Screen Feed Bin Return Con	0.07	0.03					8.23E-07	6
421	C-121 Screen Thru Collect Con	0.05	0.02					5.88E-07	6
422	C-122 Wet Classification Conveyor	0.05	0.02					5.88E-07	6
423	C-123 Transfer Conveyor	0.03	0.01					3.53E-07	6
424	C-124 Waste Stacking Conveyor	0.05	0.02					5.88E-07	6
425	C-125 Transfer Conveyor	0.05	0.02					5.88E-07	6
426	C-126 Day Bin Feed Conveyor	0.05	0.02					5.88E-07	6
427	C-126 Day Bin Discharge Conveyor	0.06	0.02					7.06E-07	6

SN	Source Description
428	S-1 Screen
429	S-2 Screen
430	S-3 Screen
431	S-4 Screen
432	C1 Crusher 1
433	C2 Crusher 2
434	C3 Crusher 3
435	C4 Crusher 4
436	C5 Crusher 5
437	C6 Crusher 6
438	Screen Feed Bin
439	Crusher Feed Bin
440	11 Grade Bin

Total Pounds/hour

Total PM (lbs/hr)	PM <sub>10</sub> (lbs/hr)	NO <sub>x</sub> (lbs/hr)	SO <sub>2</sub> (lbs/hr)	VOC (lbs/hr)	CO (lbs/hr)	lead (lbs/hr)	chromium (lbs/hr)	manganese (lbs/hr)	cobalt (lbs/hr)	arsenic (lbs/hr)	cadmium (lbs/hr)	PCB (lbs/hr)	beryllium (lbs/hr)
0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
0.042	0.014					4.94E-07	1.35E-04	6.30E-06	2.35E-05				
181.88	116.30	48.24	83.60	1.50	73.90	0.40113	0.3904	0.0145	0.0540	0.0092	0.0095	0.0370	0.00004

APPENDIX B  
40 CFR 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing  
Plants*

e-CFR Data is current as of May 11, 2009

**Title 40: Protection of Environment**

**PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

[Browse Previous](#) | [Browse Next](#)

**Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants**

**Source:** 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

**§ 60.670 Applicability and designation of affected facility.**

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in §60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the

information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

#### **§ 60.671 Definitions.**

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

*Bagging operation* means the mechanical process by which bags are filled with nonmetallic minerals.

*Belt conveyor* means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

*Bucket elevator* means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

*Building* means any frame structure with a roof.

*Capacity* means the cumulative rated capacity of all initial crushers that are part of the plant.

*Capture system* means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

*Control device* means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

*Conveying system* means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

*Crush or Crushing* means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

*Crusher* means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

*Enclosed truck or railcar loading station* means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

*Fixed plant* means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

*Fugitive emission* means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

*Grinding mill* means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

*Initial crusher* means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

*Nonmetallic mineral* means any of the following minerals or any mixture of which the majority is any of the following minerals:

(1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(2) Sand and Gravel.

(3) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(4) Rock Salt.

(5) Gypsum (natural or synthetic).

(6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(7) Pumice.

(8) Gilsonite.

(9) Talc and Pyrophyllite.

(10) Boron, including Borax, Kernite, and Colemanite.

(11) Barite.

(12) Fluorospar.

(13) Feldspar.

(14) Diatomite.

(15) Perlite.

(16) Vermiculite.

(17) Mica.



(18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

*Nonmetallic mineral processing plant* means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

*Portable plant* means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

*Production line* means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

*Saturated material* means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

*Screening operation* means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

*Seasonal shut down* means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

*Size* means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

*Stack emission* means the particulate matter that is released to the atmosphere from a capture system.

*Storage bin* means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

*Transfer point* means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

*Truck dumping* means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

*Vent* means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

*Wet material processing operation(s)* means any of the following:

(1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or

(2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

*Wet mining operation* means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

*Wet screening operation* means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

#### **§ 60.672 Standard for particulate matter (PM).**

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

#### **§ 60.673 Reconstruction.**

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

#### **§ 60.674 Monitoring of operations.**

(a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 250$  pascals  $\pm 1$  inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 5$  percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22,

2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

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

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

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

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

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

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

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

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

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

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

(i) Installation of the bag leak detection system;

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

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

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

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

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

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

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.

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

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A-3 of this part or Method 17 of Appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 of Appendix A-4 of this part and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of this part and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources ( *e.g.*, road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of this part, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9 (40 CFR part 60, Appendix A-4), the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and §60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and §60.11 to show compliance with the opacity limit in §60.672(e)(1).

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

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

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

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 51 of Appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 51 (40 CFR part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A-1 of this part [ *i.e.*, velocity head <1.3 mm H<sub>2</sub>O (0.05 in. H<sub>2</sub>O)] and referred to in EPA Method 5 of Appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans ( *e.g.*, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

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

Where:

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

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

$A_e$  = area of building vent and measurement location (square feet).

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

#### **§ 60.676 Reporting and recordkeeping.**

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

- (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and
- (ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

- (i) The total surface area of the top screen of the existing screening operation being replaced and
- (ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

- (i) The width of the existing belt being replaced and
- (ii) The width of the replacement conveyor belt.

(4) For a storage bin:

- (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and



(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to §60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

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

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

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

(3) The owner or operator of each affected facility demonstrating compliance according to §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).

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

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

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

the Administrator.

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

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

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

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

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

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

<b>Subpart A reference</b>	<b>Applies to subpart OOO</b>	<b>Explanation</b>
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

**Table 2 to Subpart OOO—Stack Emission Limits for Affected Facilities With Capture Systems**

**Table 2 to Subpart OOO—Stack Emission Limits for Affected Facilities With Capture Systems**

<b>For * * *</b>	<b>The owner or operator must meet a PM limit of * * *</b>	<b>And the owner or operator must meet an opacity limit of * * *</b>	<b>The owner or operator must demonstrate compliance with these limits by conducting * * *</b>
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) <sup>a</sup>	7 percent for dry control devices <sup>b</sup>	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) <sup>a</sup>	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c), (d), or (e) and §60.676(b).

<sup>a</sup>Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

<sup>b</sup>The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

**Table 3 to Subpart OOO—Fugitive Emission Limits**

**Table 3 to Subpart OOO—Fugitive Emission Limits**

<b>For * * *</b>	<b>The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *</b>	<b>The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *</b>	<b>The owner or operator must demonstrate compliance with these limits by conducting * * *</b>

Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
			A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.

APPENDIX C  
40 C.F.R. §279.11

# Electronic Code of Federal Regulations

**e-CFR**

TM

e-CFR Data is current as of May 11, 2009

## **Title 40: Protection of Environment**

### **PART 279—STANDARDS FOR THE MANAGEMENT OF USED OIL**

#### **Subpart B—Applicability**

[Browse Previous](#) | [Browse Next](#)

#### **§ 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<sup>1</sup>**

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. <sup>2</sup>
Note: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).	

<sup>1</sup>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)).

<sup>2</sup>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.

**CERTIFICATE OF SERVICE**

I, Pam Owen, hereby certify that a copy of this permit has been mailed by first class mail to 3M Industrial Mineral Products Division, P.O. Box 165860, Little Rock, AR, 72216, on this

2nd day of July, 2009.

Pam Owen

Pam Owen, AAIL, Air Division