

ADEQ OPERATING AIR PERMIT

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

Permit No. : 0039-AOP-R7

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:

AND

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

Signed:

Mike Bates
Chief, Air Division

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 _x	Nitrogen Oxide
PM	Particulate Matter
PM ₁₀	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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SECTION I: FACILITY INFORMATION

PERMITTEE: 3M Industrial Mineral Products Division

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PERMIT NUMBER: 0039-AOP-R7

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: Karen Cerney

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's Little Rock facilities are considered as one facility for air permitting purposes due to a connecting railroad even though they are located three miles apart. This Title V permit renewal updates emission factors, corrects moisture content for storage pile emissions, and corrects emission calculations for SN-55. The proposed changes result in a permitted emissions increase of 0.0053 ton per year (tpy) of PCB and various permitted emissions decreases.

Process Description

Arch Street

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

College Station

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

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

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

Emissions

Emissions from the facility result primarily from the quarrying and processing of stone or fuel combustion at the dryers, kilns, and sodium silicate plant boiler. Various pollutants emitted include particulate matter (PM), particulate matter under 10 microns (PM₁₀), carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO₂), 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 February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective May 28, 2006
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002
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.

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

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no related modifications have increased PM rates by greater than 25 tpy or PM₁₀ 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	713.3
		PM ₁₀	544.3
		SO ₂	61.1
		VOC	5.9
		CO	139.5
		NO _x	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 colorizing mixers and kilns at the granule plant.

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

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.

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.

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).

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.

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).

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/PM₁₀ by 1.71 tons per year (tpy), NO_x by 43.36 tpy, increases of SO₂ 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.

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/PM₁₀.

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 PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Conditions 4 and 5. [Regulation 19, §19.501 et seq., effective May 28, 2006 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 PM₁₀ 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 seventeen 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 PM₁₀ 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 PM₁₀ 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_{10} 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 PM₁₀ 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 55
Miscellaneous Quarrying Activities – Arch St.

Source Description

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

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

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

Specific Conditions

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 PM₁₀ 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]

SN-101-106, 108, 110-114, 116-119, 124, 125, 128, 129, 150-153, 211, 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
114	No. 2 Mixer Baghouse	9,925
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
125	Waste Conveyor Baghouse	1,497
128	No. 3 Mixer Baghouse	9,925
129	No. 1 Mixer Baghouse	9,925
150	IC Circuit – Silo #1 Baghouse	1,445
151	IC Circuit – Silo #2 Baghouse	5,300
152	IC Circuit – Silo #3 Baghouse	3,373
211	Covered Raw Granule Stockpile Baghouse	8,000
311	Automated Mixing System Baghouse	10,000

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. An unlimited amount of natural gas may be used at 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 PM₁₀, SO₂, VOC, CO, NO_x, 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 an opacity of 5% from any baghouse at College Station as measured by EPA Reference Method 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]
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 sources listed in above table:

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:

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- 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]

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.

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Records shall be submitted in accordance with General Provision 7. [Regulation 19, §19.705 and 40 CFR Part 52, Subpart E]

SN-115, 154, and 155
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

36. 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 PM₁₀, SO₂, VOC, CO, NO_x, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 39 and 40. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
37. 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 39 and 40. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
38. 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]
39. 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]
40. 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]

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SN-107, 109, 156-176, 183-185, 212, 213, 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
185	Pugmill at Coloring Waste Bin
212	Conveyer 43
213	Conveyer 44
310	Truck /Railcar Loading Conveyer
401	C-101 Screen Feed Conveyor
402	C-102 Screens Feed Conveyor
403	C-103 Screens Feed Conveyor
404	C-104 Screens Feed Conveyor
405	C-105 Screens Feed Conveyor
406	C-106 Screens Feed Conveyor
407	C-107 Screens Feed Conveyor
408	C-108 Screens Feed Conveyor

SN	Description
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

41. 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 PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Condition 44. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
42. 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 44. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
43. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 44. [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, 185, 212, 213, 401-427	20%
107, 156-163, 165, 166, 173-176, 183, 310	40%

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44. 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]

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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

45. 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 PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Condition 44. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
46. 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 44. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
47. 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 44. [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

48. 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 PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Condition 44. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
49. 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 44. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
50. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 44. [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%

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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

51. 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 PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Condition 44. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
52. 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 44. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-194, 195, 300-302, and 304-306
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
305	Truck Loading at Coloring Pugmill
306	Plant Vehicle Traffic including Baghouse Waste Haul Off

Specific Conditions

53. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Condition 44. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
54. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Condition 44. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

55. 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 PM₁₀, SO₂, VOC, CO, NO_x, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 44 and 57. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
56. 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 44 and 57. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
57. 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-111-115, 121-123, 131-135, 154, 155, 158-172, 176, 186-191, 194, 195, 199-210, 304, 305,
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
114	No. 2 Mixer 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

SN	Description
191	Bucket Elevator No. 27 (Sodium Silicate)
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)
305	Truck Loading at Coloring Pugmill
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

58. 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 59. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

59. The permittee shall not 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

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analyses, or calculations using Department approved methodology. Records shall be kept 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-432-437
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

60. 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 PM₁₀ and lead. Compliance shall be demonstrated by compliance with Specific Condition 63. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
61. 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 63. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
62. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 63. [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%

63. 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]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

According to information submitted to the date of issuance of this permit, 3M is in compliance with the PM₁₀ NAAQS. To ensure ongoing compliance, 3M shall continue to operate existing on-site ambient air monitors according to protocols outlined in past monitoring submissions and according to the Department's CEMS conditions found in Appendix D of this permit. The facility shall continue to submit quarterly monitoring reports, with the complete data, in a similar format as previously submitted reports. Any excess in the PM₁₀ 24-hour or annual average PM₁₀ concentrations shall be summarized, along with an explanation for each exceedance. Concentrations exceeding NAAQS may be cause for reopening of this permit. This schedule for submission shall be followed until the permittee has submitted a second Title V permit renewal application. At that point, the permittee may apply for removal of this requirement.

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]

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), effective September 26, 2002]
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. [40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]
 - 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.
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: [40 C.F.R. 70.6(a)(3)(iii)(A) and Regulation 26, §26.701(C)(3)(a)]

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

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;
 - e. and 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]

APPENDIX A

[illegible]

SN	Source Description	Total PM (lbs/hr)	PM ₁₀ (lbs/hr)	NO _x (lbs/hr)	SO ₂ (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)
57	Emergency Stockpile	0.60	0.60												
58	Emergency Railroad Loadout	0.10	0.10												
59	Conveyor from A.C. Crusher	0.22	0.08												
60	Parallel Crusher	Bubbled w/ SN-09													
61	No. 45 Conveyor	0.22	0.08												
62	No. 46 Conveyor	0.22	0.08												
101	Dryer Feed End (BH)	5.20	5.20												
102	C&S Line #1 (BH)	4.30	4.30												
103	C&S Line #2 (BH)	4.30	4.30												
104	C&S Line #3 (BH)	5.30	5.30												
105	Filler Screen Baghouse	1.80	1.80												
106	Product & Tripper Flr. (BH)	1.90	1.90												
107	Feeders	0.12	0.04												
108	Dryer No. 1 Baghouse	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
109	JB Conveyor	0.12	0.04												
110	No. 7 Filler Tank (BH)	0.60	0.60												
111	No. 1 Kiln Baghouse	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
112	No. 2 Kiln Baghouse	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
113	No. 3 Kiln Baghouse	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
114	No. 2 Mixer Baghouse	1.80	1.80					2.12E-05	5.79E-03	2.70E-04	1.01E-03				
115	No. 1 Cooler (Scrubber)	4.80	4.80					5.64E-05	1.54E-02	7.20E-04	2.69E-03				
116	Dryer No. 2 Baghouse	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
117	No. 1 Clay Tank Baghouse	0.30	0.30												
118	No. 2 Clay Tank Baghouse	0.30	0.30												
119	No. 3 Clay Tank Baghouse	0.30	0.30												
120	Sodium Silicate Bin	Decommissioned													
121	No. 21 Elevator	1.60	1.60					1.88E-05	5.15E-03	2.40E-04	8.96E-04				
122	No. 22 Elevator	1.60	1.60					1.88E-05	5.15E-03	2.40E-04	8.96E-04				
123	No. 23 Elevator	1.60	1.60					1.88E-05	5.15E-03	2.40E-04	8.96E-04				
124	Coloring Feed End Baghouse	2.70	2.70												
125	Waste Conveyor Baghouse	0.30	0.30					3.53E-06	9.65E-04	4.50E-05	1.68E-04				
128	No. 3 Mixer Baghouse	1.80	1.80					2.12E-05	5.79E-03	2.70E-04	1.01E-03				
129	No. 1 Mixer Baghouse	1.80	1.80					2.12E-05	5.79E-03	2.70E-04	1.01E-03				

SN	Source Description	Total PM (lbs/hr)	PM ₁₀ (lbs/hr)	NO _x (lbs/hr)	SO ₂ (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)
130	Sodium Silicate Plant Boiler	Decommissioned													
131	Screen No. 25	0.17	0.06					2.00E-06	5.47E-04	2.55E-05	9.52E-05				
132	Screen No. 26	0.17	0.06					2.00E-06	5.47E-04	2.55E-05	9.52E-05				
133	Screen No. 29	0.17	0.06					2.00E-06	5.47E-04	2.55E-05	9.52E-05				
134	Screen No. 28	0.17	0.06					2.00E-06	5.47E-04	2.55E-05	9.52E-05				
135	Screen No. 27	0.17	0.06					2.00E-06	5.47E-04	2.55E-05	9.52E-05				
150	IC Circuit - Silo No. 1 (BH)	0.30	0.30												
151	IC Circuit - Silo No. 2 (BH)	1.00	1.00												
152	IC Circuit - Silo No. 3 (BH)	0.60	0.60												
153	Waste & Raw Granule(BH)	2.50	2.50												
154	No. 2 Cooler (Scrubber)	4.80	4.80					5.64E-05	1.54E-02	7.20E-04	2.69E-03				
155	No. 3 Cooler (Scrubber)	4.80	4.80					5.64E-05	1.54E-02	7.20E-04	2.69E-03				
156	Conveyor No. 1	2.40	0.90												
157	Conveyor No. 2	2.40	0.90												
158	Transfer Conveyor No. 20	0.021	0.007					2.47E-07	6.76E-05	3.15E-06	1.18E-05				
159	Transfer Conveyor No. 21	0.021	0.007					2.47E-07	6.76E-05	3.15E-06	1.18E-05				
160	Transfer Conveyor No. 22	0.014	0.005					1.65E-07	4.50E-05	2.10E-06	7.84E-06				
161	Transfer Conveyor No. 23	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
162	Transfer Conveyor No. 24	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
163	Transfer Conveyor No. 25	0.026	0.009					3.06E-07	8.37E-05	3.90E-06	1.46E-05				
164	Transfer Conveyor No. 33	0.042	0.014					4.94E-07	1.35E-04	6.30E-06	2.35E-05				
165	Transfer Conveyor No. 34	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
166	Transfer Conveyor No. 35	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
167	Transfer Conveyor No. 36	0.026	0.009					3.06E-07	8.37E-05	3.90E-06	1.46E-05				
168	Transfer Conveyor No. 37	0.026	0.009					3.06E-07	8.37E-05	3.90E-06	1.46E-05				
169	Transfer Conveyor No. 39	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
170	Transfer Conveyor No. 40	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
171	Transfer Conveyor No. 41	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
172	Transfer Conveyor No. 42	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
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	3.22E-04	1.50E-05	5.60E-05				

SN	Source Description	Total PM (lbs/hr)	PM ₁₀ (lbs/hr)	NO _x (lbs/hr)	SO ₂ (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)
183	Pugmill	0.04	0.02												
184	Pugmill	0.05	0.02												
185	Pugmill	0.04	0.02												
186	Bucket Elevator No. 18	0.021	0.01					2.47E-07	6.76E-05	3.15E-06	1.18E-05				
187	Bucket Elevator No. 19	0.021	0.01					2.47E-07	6.76E-05	3.15E-06	1.18E-05				
188	Bucket Elevator No. 20	0.021	0.01					2.47E-07	6.76E-05	3.15E-06	1.18E-05				
189	Bucket Elevator No. 24	1.24	1.22					1.46E-05	3.99E-03	1.86E-04	6.94E-04				
190	Bucket Elevator No. 25	0.04	0.02					4.70E-07	1.29E-04	6.00E-06	2.24E-05				
191	Bucket Elv. No. 27 (Silicate Plt.)	0.10	0.04					1.18E-06	3.22E-04	1.50E-05	5.60E-05				
194	Finished Granule Storage/Loading	0.06	0.03					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
195	Waste Granule Storage/Loading	0.03	0.05					3.53E-07	9.65E-05	4.50E-06	1.68E-05				
199	Product Bin P1	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
200	Product Bin P2	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
201	Product Bin P3	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
202	Product Bin P4	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
203	Product Bin P5	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
204	Product Bin P6	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
205	Product Bin P7	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
206	Product Bin P8	4.90	2.40					5.76E-05	1.58E-02	7.35E-04	2.74E-03				
207	Waste Bin W21	3.00	1.50					3.53E-05	9.65E-03	4.50E-04	1.68E-03				
208	Waste Bin W22	3.00	1.50					3.53E-05	9.65E-03	4.50E-04	1.68E-03				
209	Waste Bin W23	3.00	1.50					3.53E-05	9.65E-03	4.50E-04	1.68E-03				
210	Waste Bin W24	3.00	1.50					3.53E-05	9.65E-03	4.50E-04	1.68E-03				
211	Covered Raw Gran. Stockpile (BH)	1.40	1.40												
212	Conveyor No. 43	0.06	0.02												
213	Conveyor No. 44	0.06	0.02												
300	Train Car Unload	0.12	0.04												
301	Truck Loading at Pugmill	0.08	0.04												
302	Mineral Unloading at Wet Stockpile	0.05	0.02												
303	Wet Stockpile Fugitives	1.10	1.10												
304	Traincar Unloading (Silica)	0.08	0.04					9.41E-07	2.57E-04	1.20E-05	4.48E-05				

SN	Source Description	Total PM (lbs/hr)	PM ₁₀ (lbs/hr)	NO _x (lbs/hr)	SO ₂ (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)
305	Truck Loading at Coloring Pugmill	0.06	0.03					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
306	Plant Vehicle Traffic/Haul Off	9.00	1.80												
307	Temporary Storage Stockpile Drop	0.70	0.70												
308	Raw Stockpile	2.30	2.30												
310	Truck/Railcar Loading	0.09	0.04												
311	Automated Mixing System	1.80	1.80					2.12E-05	5.79E-03	2.70E-04	1.01E-03				
401	C-101 Feed Conveyor Main Plant	0.07	0.023					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
402	C-102 Screens Feed Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
403	C-103 Screens Feed Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
404	C-104 Under Screen Conveyor	0.01	0.01					8.23E-08	2.25E-05	1.05E-06	3.92E-06				
405	C-105 Under Screen Conveyor	0.01	0.01					8.23E-08	2.25E-05	1.05E-06	3.92E-06				
406	C-106 Under Screen Conveyor	0.01	0.01					8.23E-08	2.25E-05	1.05E-06	3.92E-06				
407	C-107 Under Screen Conveyor	0.01	0.01					8.23E-08	2.25E-05	1.05E-06	3.92E-06				
408	C-108 Screen Overs Conveyor	0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
409	C-109 Crusher Feed Bin Conveyor	0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
410	C-110 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6.44E-05	3.00E-06	1.12E-05				
411	C-111 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6.44E-05	3.00E-06	1.12E-05				
412	C-112 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6.44E-05	3.00E-06	1.12E-05				
413	C-113 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6.44E-05	3.00E-06	1.12E-05				
414	C-114 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6.44E-05	3.00E-06	1.12E-05				
415	C-115 Crusher Feed Conveyor	0.02	0.01					2.35E-07	6.44E-05	3.00E-06	1.12E-05				
416	C-116 Crusher Discharge Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
417	C-117 Crusher Discharge Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
418	C-118 Collecting Conveyor	0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
419	C-119 Transfer Conveyor	0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
420	C-120 Screen Feed Bin Return Con	0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
421	C-121 Screen Thru Collect Con	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
422	C-122 Wet Classification Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
423	C-123 Transfer Conveyor	0.03	0.01					3.53E-07	9.65E-05	4.50E-06	1.68E-05				
424	C-124 Waste Stacking Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				

SN	Source Description	Total PM (lbs/hr)	PM ₁₀ (lbs/hr)	NO _x (lbs/hr)	SO ₂ (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)
425	C-125 Transfer Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
426	C-126 Day Bin Feed Conveyor	0.05	0.02					5.88E-07	1.61E-04	7.50E-06	2.80E-05				
427	C-126 Day Bin Discharge Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
428	S-1 Screen	0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
429	S-2 Screen	0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
430	S-3 Screen	0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
431	S-4 Screen	0.11	0.04					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
432	C1 Crusher 1	0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
433	C2 Crusher 2	0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
434	C3 Crusher 3	0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
435	C4 Crusher 4	0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
436	C5 Crusher 5	0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
437	C6 Crusher 6	0.11	0.05					1.29E-06	3.54E-04	1.65E-05	6.16E-05				
438	Screen Feed Bin	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
439	Crusher Feed Bin	0.07	0.03					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
440	11 Grade Bin	0.042	0.014					4.94E-07	1.35E-04	6.30E-06	2.35E-05				
Total Pounds/hour =		193.56	140.96	48.24	83.60	1.50	73.90	0.40113	0.3904	0.0145	0.0540	0.0092	0.0095	0.0370	0.00004

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SN	Source Description	Total PM (tons/yr)	PM ₁₀ (tons/yr)	NO _x (tons/yr)	SO ₂ (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)
57	Emergency Stockpile	0.50	0.50												
58	Emergency Railroad Loadout	0.40	0.20												
59	Conveyor from A.C. Crusher	0.21	0.07												
60	Parallel Crusher	Bubbled w/ SN-09													
61	No. 45 Conveyor	0.21	0.07												
62	No. 46 Conveyor	0.21	0.07												
101	Dryer Feed End (BH)	22.60	22.60												
102	C&S Line #1 (BH)	18.60	18.60												
103	C&S Line #2 (BH)	18.60	18.60												
104	C&S Line #3 (BH)	23.2	23.2												
105	Filler Screen Baghouse	7.50	7.50												
106	Product & Tripper Flr. (BH)	8.00	8.00												
107	Feeders	0.60	0.20												
108	Dryer No. 1 Baghouse	33.70	33.70	31.10	12.40	1.80	26.60	9.00E-02	1.80E-02			9.00E-04	9.00E-04	4.00E-03	6.07E-05
109	JB Conveyor	0.60	0.20												
110	No. 7 Filler Tank (BH)	2.30	2.30												
111	No. 1 Kiln Baghouse	18.70	18.70	21.90	11.80	1.20	18.40	2.20E-04	6.02E-02	2.81E-03	1.05E-02	1.30E-03	1.37E-03	5.33E-03	3.37E-05
112	No. 2 Kiln Baghouse	18.70	18.70	21.90	11.80	1.20	18.40	2.20E-04	6.02E-02	2.81E-03	1.05E-02	1.30E-03	1.37E-03	5.33E-03	3.37E-05
113	No. 3 Kiln Baghouse	18.70	18.70	21.90	11.80	1.20	18.40	2.20E-04	6.02E-02	2.81E-03	1.05E-02	1.30E-03	1.37E-03	5.33E-03	3.37E-05
114	No. 2 Mixer Baghouse	7.50	7.50					8.82E-05	2.41E-02	1.13E-03	4.20E-03				
115	No. 1 Cooler (Scrubber)	21.00	21.00					2.47E-04	6.76E-02	3.15E-03	1.18E-02				
116	Dryer No. 2 Baghouse	18.70	18.70	8.80	11.80	0.50	7.40					1.37E-03	1.37E-03	5.33E-03	3.37E-05
117	No. 1 Clay Tank Baghouse	1.20	1.20												
118	No. 2 Clay Tank Baghouse	1.20	1.20												
119	No. 3 Clay Tank Baghouse	1.20	1.20												
120	Sodium Silicate Bin	Decommissioned													
121	No. 21 Elevator	6.70	6.70					7.88E-05	2.16E-02	1.01E-03	3.75E-03				
122	No. 22 Elevator	6.70	6.70					7.88E-05	2.16E-02	1.01E-03	3.75E-03				
123	No. 23 Elevator	6.70	6.70					7.88E-05	2.16E-02	1.01E-03	3.75E-03				
124	Coloring Feed End Baghouse	11.50	11.50												
125	Waste Conveyor Baghouse	1.20	1.20					1.41E-05	3.86E-03	1.80E-04	6.72E-04				
128	No. 3 Mixer Baghouse	7.50	7.50					8.82E-05	2.41E-02	1.13E-03	4.20E-03				
129	No. 1 Mixer Baghouse	7.50	7.50					8.82E-05	2.41E-02	1.13E-03	4.20E-03				

SN	Source Description	Total PM (tons/yr)	PM ₁₀ (tons/yr)	NO _x (tons/yr)	SO ₂ (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)
130	Sodium Silicate Plant Boiler	Decommissioned													
131	Screen No. 25	0.80	0.25					9.41E-06	2.57E-03	1.20E-04	4.48E-04				
132	Screen No. 26	0.80	0.25					9.41E-06	2.57E-03	1.20E-04	4.48E-04				
133	Screen No. 29	0.80	0.25					9.41E-06	2.57E-03	1.20E-04	4.48E-04				
134	Screen No. 28	0.80	0.25					9.41E-06	2.57E-03	1.20E-04	4.48E-04				
135	Screen No. 27	0.80	0.25					9.41E-06	2.57E-03	1.20E-04	4.48E-04				
150	IC Circuit - Silo No. 1 (BH)	1.10	1.10												
151	IC Circuit - Silo No. 2 (BH)	4.00	4.00												
152	IC Circuit - Silo No. 3 (BH)	2.60	2.60												
153	Waste & Raw Granule(BH)	10.70	10.70												
154	No. 2 Cooler (Scrubber)	21.00	21.00					2.47E-04	6.76E-02	3.15E-03	1.18E-02				
155	No. 3 Cooler (Scrubber)	21.00	21.00					2.47E-04	6.76E-02	3.15E-03	1.18E-02				
156	Conveyor No. 1	4.50	1.70												
157	Conveyor No. 2	4.50	1.70												
158	Transfer Conveyor No. 20	0.092	0.040					1.08E-06	2.96E-04	1.38E-05	5.15E-05				
159	Transfer Conveyor No. 21	0.092	0.040					1.08E-06	2.96E-04	1.38E-05	5.15E-05				
160	Transfer Conveyor No. 22	0.070	0.030					8.23E-07	2.25E-04	1.05E-05	3.92E-05				
161	Transfer Conveyor No. 23	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
162	Transfer Conveyor No. 24	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
163	Transfer Conveyor No. 25	0.120	0.040					1.41E-06	3.86E-04	1.80E-05	6.72E-05				
164	Transfer Conveyor No. 33	0.200	0.080					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
165	Transfer Conveyor No. 34	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
166	Transfer Conveyor No. 35	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
167	Transfer Conveyor No. 36	0.120	0.040					1.41E-06	3.86E-04	1.80E-05	6.72E-05				
168	Transfer Conveyor No. 37	0.120	0.040					1.41E-06	3.86E-04	1.80E-05	6.72E-05				
169	Transfer Conveyor No. 39	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
170	Transfer Conveyor No. 40	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
171	Transfer Conveyor No. 41	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
172	Transfer Conveyor No. 42	0.25	0.09					2.94E-06	8.04E-04	3.75E-05	1.40E-04				
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	1.29E-03	6.00E-05	2.24E-04				

[illegible]

SN	Source Description	Total PM (tons/yr)	PM ₁₀ (tons/yr)	NO _x (tons/yr)	SO ₂ (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)
307	Temporary Storage Stockpile Drop	3.10	3.10												
308	Raw Stockpile	10.00	10.00												
310	Truck/Railcar Loading	0.40	0.20												
311	Automated Mixing System	7.90	7.90					9.29E-05	2.54E-02	1.19E-03	4.42E-03				
401	C-101 Feed Conveyor Main Plant	0.31	0.100					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
402	C-102 Screens Feed Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
403	C-103 Screens Feed Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
404	C-104 Under Screen Conveyor	0.04	0.02					4.70E-07	1.29E-04	6.00E-06	2.24E-05				
405	C-105 Under Screen Conveyor	0.04	0.02					4.70E-07	1.29E-04	6.00E-06	2.24E-05				
406	C-106 Under Screen Conveyor	0.04	0.02					4.70E-07	1.29E-04	6.00E-06	2.24E-05				
407	C-107 Under Screen Conveyor	0.04	0.02					4.70E-07	1.29E-04	6.00E-06	2.24E-05				
408	C-108 Screen Overs Conveyor	0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
409	C-109 Crusher Feed Bin Conveyor	0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
410	C-110 Crusher Feed Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
411	C-111 Crusher Feed Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
412	C-112 Crusher Feed Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
413	C-113 Crusher Feed Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
414	C-114 Crusher Feed Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
415	C-115 Crusher Feed Conveyor	0.06	0.02					7.06E-07	1.93E-04	9.00E-06	3.36E-05				
416	C-116 Crusher Discharge Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
417	C-117 Crusher Discharge Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
418	C-118 Collecting Conveyor	0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
419	C-119 Transfer Conveyor	0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
420	C-120 Screen Feed Bin Return Con	0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
421	C-121 Screen Thru Collect Con	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
422	C-122 Wet Classification Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
423	C-123 Transfer Conveyor	0.10	0.04					1.18E-06	3.22E-04	1.50E-05	5.60E-05				
424	C-124 Waste Stacking Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
425	C-125 Transfer Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
426	C-126 Day Bin Feed Conveyor	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				
427	C-126 Day Bin Discharge Conveyor	0.30	0.10					3.53E-06	9.65E-04	4.50E-05	1.68E-04				
428	S-1 Screen	0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
429	S-2 Screen	0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				

SN	Source Description	Total PM (tons/yr)	PM ₁₀ (tons/yr)	NO _x (tons/yr)	SO ₂ (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)
430	S-3 Screen	0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
431	S-4 Screen	0.50	0.20					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
432	C1 Crusher 1	0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
433	C2 Crusher 2	0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
434	C3 Crusher 3	0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
435	C4 Crusher 4	0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
436	C5 Crusher 5	0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
437	C6 Crusher 6	0.50	0.21					5.88E-06	1.61E-03	7.50E-05	2.80E-04				
438	Screen Feed Bin	0.30	0.10					3.53E-06	9.65E-04	4.50E-05	1.68E-04				
439	Crusher Feed Bin	0.31	0.10					3.65E-06	9.97E-04	4.65E-05	1.74E-04				
440	11 Grade Bin	0.20	0.07					2.35E-06	6.44E-04	3.00E-05	1.12E-04				

Total Pounds/hour =	713.254	544.260	118.40	61.10	5.90	139.50	0.09493	1.3675	0.0629	0.2349	0.0062	0.0064	0.0253	0.0002
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