RESPONSE TO COMMENTS

3M COMPANY (3M INDUSTRIAL MINERAL PRODUCTS DIVISION) PERMIT #0039-AOP-R12 AFIN: 60-00003

On August 21, 2015, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted by the facility. The Department's response to these issues follows.

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

Comment #1:

Facility has requested that HAP limits for pigment usage on page 37 (condition 67) and page 25 (condition 39) be removed.

Response to Comment #1:

SC-67 and 39 have been removed, compliance is now demonstrated with SC-65 for SC-67 and SC-33 and 34 for SC-39.

Comment #2:

Facility has requested that Appendix B (NSPS OOO) be removed as they are not subject to NSPS OOO.

Response to Comment #2:

Appendix B has been removed, the facility is not subject to NSPS 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.

Comment #3:

Facility has requested that SC-41 (page 26) be modified to allow test ISO23210 for PM10, and both tests 320 and TO-15 for Methanol and Toluene.

Response to Comment #3:

SC-41 has been modified to allow Methods 320 and TO-15 to be used. The ISO 23210 test is not being approved due to the lack of documentation and/or data that shows it is an equivalent test

for EPA method 5 and/or 201A, and because it is not applicable where the majority of the particles are likely to exceed PM10 (per the ISO 23210 Abstract).

Comment #4:

Facility has requested that SN-401 through 443 be removed from the permit as they have been removed from service and are no longer located on site. This change in equipment was identified on the 2014 emission inventory.

Response to Comment #4:

SN-401 through 443 and their requirements have been removed from the permit as they are no longer in service or on site. Note that the Emission Inventory is not part of the permit application process, and it is not considered when a permit is being revised.

Comment #5:

Facility has requested that opacity requirements be removed from the following sources: SN-31, 33, 107, 158-166, 169, 170, 173, 174, 199-210 because they are either underground or inside of a building.

Response to Comment #5:

Opacity requirements for the above sources have been removed, because they are either underground or inside of a building.

Comment #6:

Facility has requested that SC-4, 26, 35, 44, 52, 63, and 72 be modified to only require opacity testing once every two weeks due to the large time and resource commitment involved in the weekly recordkeeping.

Response to Comment #6:

SC-72 has been modified to require opacity testing once every two weeks due to the other compliance mechanism in place, all other sources listed in the above specific conditions (SC-4, 26, 35, 44, 52, 63) have no other compliance mechanism (such as recorded pressure drop) and therefore will not be modified as requested



December 11, 2015

Steve Srebalus Manager Health Safety and Environment 3M Company (3M Industrial Mineral Products Division) P.O. Box 165860 Little Rock, AR 72216

Dear Mr. Srebalus:

The enclosed Permit No. 0039-AOP-R12 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 9/30/2011.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 0039-AOP-R12 for the construction and operation of equipment at 3M Company (3M Industrial Mineral Products Division) shall be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

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

Sincerely,

Stuart Spencer

Associate Director, Office of Air Quality

Enclosure: Final Permit

ADEQ OPERATING AIR PERMIT

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

Permit No.: 0039-AOP-R12

IS ISSUED TO:

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

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

December 11, 2015

AND

December 10, 2020

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

Signed:

Stuart Spencer

Associate Director, Office of Air Quality

December 11,2015

Date

3M Company (3M Industrial Mineral Products Division) Permit #: 0039-AOP-R12

AFIN: 60-00003

Table of Contents

| SECTION I: FACILITY INFORMATION | 4 |
|--|--------|
| SECTION II: INTRODUCTION | 5 |
| Summary of Permit Activity | 5 5 |
| Process Description | 5 5 |
| Regulations | 5 |
| Emission Summary | 0 7 |
| SECTION III: PERMIT HISTORY | Q |
| SECTION IV: SPECIFIC CONDITIONS | 12 |
| SN-03, 07, 09, 31, 33 | 12 |
| SN-04, 05, 10-16, 19, 20, 28, 29, and 59 | 14 |
| SN-06, 08, 30, and 32 | 16 |
| SN-18 and 58 | 17 |
| SN-17 and 57 | 18 |
| SN-50 through SN-55 | 10 |
| SN-101-106, 108, 111-113, 116-119, 124, 153, 211, 214, and 311 | 20 |
| SN-115, 154, and 155 | 23 |
| SN-114, 128, and 129 | 26 |
| SN-107, 156-175, 183-184, 212, 213, 215, 216, 310 | 28 |
| SN-131-135 | 21 |
| SN-121-123 and 186-190 | 32 |
| SN-199-210, 303, 307, 308 | 33 |
| SN-194, 195, 300-302, 306, and 313 | 35 |
| SN-111-113, 115, 121-123, 131-135, 154, 155, 158-172, 186-190, 194, 195, 199-210, an | d 311 |
| CECTION IV. COMPLY INCOME | 36 |
| SECTION V: COMPLIANCE PLAN AND SCHEDULE | 40 |
| SECTION VI: PLANTWIDE CONDITIONS | 41 |
| SECTION VII: INSIGNIFICANT ACTIVITIES. | 43 |
| SECTION VIII: GENERAL PROVISIONS | 44 |
| Appendix A- Emission Limits | 50 |
| Appendix B- 40 C.F.R. §279.11 | 84 |
| Appendix C- 40 CFR 63, Subpart CCCCCC National Emission Standards for Hazardous Ai | ir |
| Pollutants for Source Category: Gasoline Dispensing Facilities | 86 |

Permit #: 0039-AOP-R12

AFIN: 60-00003

List of Acronyms and Abbreviations

Ark. Code Ann. Arkansas Code Annotated

AFIN ADEQ Facility Identification Number

C.F.R. Code of Federal Regulations

CO Carbon Monoxide

HAP Hazardous Air Pollutant

lb/hr Pound Per Hour

MVAC Motor Vehicle Air Conditioner

No. Number

NO_x Nitrogen Oxide

PM Particulate Matter

PM₁₀ Particulate Matter Smaller Than Ten Microns

SNAP Significant New Alternatives Program (SNAP)

SO₂ Sulfur Dioxide

SSM Startup, Shutdown, and Malfunction Plan

Tpy Tons Per Year

UTM Universal Transverse Mercator

VOC Volatile Organic Compound

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION I: FACILITY INFORMATION

PERMITTEE: 3M Company (3M Industrial Mineral Products Division)

AFIN: 60-00003

PERMIT NUMBER: 0039-AOP-R12

FACILITY ADDRESS: Highway 365 and Walters Drive

Little Rock, AR 72216

MAILING ADDRESS: P.O. Box 165860

Little Rock, AR 72216

COUNTY: Pulaski County

CONTACT NAME: Steve Srebalus

CONTACT POSITION: Manager Health Safety and Environment

TELEPHONE NUMBER: (501) 490-1509

REVIEWING ENGINEER: Christopher Riley

UTM North South (Y): Zone 15: 3840897.89 m

UTM East West (X): Zone 15: 569687.29 m

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION II: INTRODUCTION

Summary of Permit Activity

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

- Replacement of SN-115 (No. 1 Cooler Scrubber), SN-154 (No. 2 Cooler Scrubber), and SN-155 (No. 3 Cooler Scrubber)
- Removing SN-1(Tertiary Crusher Baghouse), SN-02 (Transfer Tower), 24 (Alternate Truck Loadout), 60 (Parallel Crusher), 61 (No. 45 Conveyor), 62 (No. 46 Conveyor), 109 (JB Conveyor), 110 (No. 7 Filler Tank [BH]), 120 (Sodium Silicate Bin), 125 (Waste conveyor), 130 (Sodium Silicate Plant Boiler), 150 (IC Circuit Silo No. 1 [BH]), 151 (IC Circuit Silo No. 2 [BH]), 152 (IC Circuit Silo No. 3 [BH]), 176 (Conveyor No. 31A [Silicate Plant]), 185 (Pugmill), 191 (Bucket Elv. No. 27 [Silicate Plt.]), 304 (Traincar Unloading [Silica]), 305 (Truck Loading at Coloring Pugmill), and 312 (Truck Loading Color Batch Mixer) from the permit
- Addition of SN-444 (Gasoline tank [arch] 550 gal) and SN-445 (Gasoline tank [college]
 270 gal) as well as NESHAP 6C conditions
- Updated Emission Factors and Calculations
- Emission changes this revision: +81.28 tpy Total PM, +17.75 tpy PM₁₀, -53.4 tpy SO₂, +0.33 tpy VOC, +187.2 tpy CO, -62.5 tpy NO_X, -0.082 tpy Lead, +1.32 tpy Chromium, +0.92 Manganese, -0.147 tpy Cobalt, -0.008 tpy Arsenic, -0.008tpy Cadmium, -0.009 tpy Beryllium, -5.067 tpy Toluene, +0.0006 tpy Antimony, +0.0024 tpy Benzene, +0.0014tpy Dichlorobenzene, +0.085 tpy Formaldehyde, +2.06 tpy Hexane, +0.0009 Mercury, +0.0071 tpy Nickel, +0.049 tpy POM, and +0.0005 tpy Selenium

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

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

Emissions

Emissions from the facility result primarily from the quarrying and processing of stone or fuel combustion at the dryers, kilns, and sodium silicate plant boiler. Various pollutants emitted include particulate matter (PM), particulate matter under 10 microns (PM $_{10}$), carbon monoxide (CO), nitrogen oxides (NO $_{\rm X}$), sulfur dioxide (SO $_{\rm 2}$), and volatile organic compounds (VOC).

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

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

Regulations

The following table contains the regulations applicable to this permit.

Permit #: 0039-AOP-R12

AFIN: 60-00003

Regulations

Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010

Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective September 13, 2014

Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective November 18, 2012

40 CFR Part 64 – Compliance Assurance Monitoring

40 CFR Part 63- National Emission Standards for Hasardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Emission Summary

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

| EMISSION SUMMARY | | | | |
|------------------|-------------------------|---|--|--|
| Source | | Pollutant | Emission Rates | |
| Number | Description | Pollutant | lb/hr | tpy |
| | | PM | 134.06 | 580.4 |
| | | PM_{10} | 80.58 | 346.2 |
| Total | ıl Allowable Emissions | SO ₂ | 1.76 | 7.7 |
| Tota | ii Allowable Effissions | VOC | 51.81 | 44.53 |
| | | СО | 75.43 | 330.4 |
| | | NO_X | 13.76 | 60.3 |
| HAPs | | Antimony Arsenic Benzene* Beryllium Cadmium Chromium Cobalt Dichlorobenzene* Formaldehyde* Hexane* Lead Manganese | 1.3E-03 4.7E-04 5.4E-04 2.0E-04 4.0E-04 8.0E-01 1.9E-02 3.2E-04 2.0E-02 1.8E-01 4.1E-03 2.3E-01 | 6.0E-04 2.0E-03 2.4E-03 1.0E-03 2.0E-03 2.61 8.3E-02 1.4E-03 8.5E-02 2.06 1.8E-02 9.8E-01 |
| | | Mercury | 2.3E-01 2.0E-04 | 9.8E-01 9.0E-04 |

3M Company (3M Industrial Mineral Products Division)
Permit #: 0039-AOP-R12

AFIN: 60-00003

| EMISSION SUMMARY | | | | |
|--------------------|-------------|-----------|----------------|---------|
| Source Description | | Pollutant | Emission Rates | |
| Number | Description | Fonutant | lb/hr | tpy |
| | | Methanol* | 9.9E-01 | 9.50 |
| | | Nickel | 1.7E-03 | 7.1E-03 |
| | | POM* | 1.2E-02 | 4.9E-02 |
| | | Selenium | 1.1E-04 | 5.0E-04 |
| | | Toluene* | 1.1E-03 | 3.9E-03 |

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION III: PERMIT HISTORY

Arch Street

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

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

College Station

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

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

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

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

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

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

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

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

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

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

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

Permit #0039-AOP-R5, issued on March 29, 2006, allowed the facility to combust used oil at SN-108, SN-111, SN-112, SN-113, and SN-116. Also, emission rates from these sources were revised using the most updated USEPA AP-42 emissions factors. Emissions changes included decreases of PM/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.

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/PM₁₀.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

Permit 0039-AOP-R9 was a minor modification issued on July 2, 2009. This minor modification permit authorized the facility to add the following equipment: Conveyors 27 and 28 (SN-215 and SN-216), Truck Loading at the Coloring Batch Mixer (FS-312), Truck Loading at the Copper Dust Loadout (FS-313) and to replace the existing baghouses on No. 1 Mixer (SN-129), No. 2 Mixer (SN-114) and No. 3 Mixer (SN-128) with water scrubbers. Multiple sources have been modified to reflect controls in place and/or use throughput data and emission factors. The permitted emission decreases were: 34.3 tpy of PM and 98.2 tpy of PM₁₀

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

Permit 0039-AOP-R11 was a modification issued on April 4, 2011. This modification authorized an increase to the permitted emission rates for the Waste & Raw Granule Baghouse (SN-153). The following corrections were included to reflect the current facility operating process. These changes were included in previous applications but are not reflected in the permit. Removed SN-109 and SN-110. Removed SN-121 through SN-123 and SN-131 through SN-135 since emissions were rerouted to SN-115, SN-154, and SN-155. SN-116 and SN-195 corrected emissions typo. SN-199 through SN-210 changed emission factors. The permitted emission decreases are 177.0 tpy of PM, 114.8 tpy of PM $_{10}$ and the increases are 0.3 tpy VOC, 3.7 tpy CO, and 4.4 tpy NO $_{\rm x}$.

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION IV: SPECIFIC CONDITIONS

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

Source Description

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

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

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

Specific Conditions

- 1. The permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM₁₀. The permittee shall demonstrate compliance with Specific Conditions 5 and 6. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- 2. The permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM. The permittee shall demonstrate compliance with Specific Conditions 5 and 6. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

- a. The date and time of the observation.
- b. If visible emissions which appeared to be above the permitted limit were detected.
- c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
- d. The name of the person conducting the opacity observations.
- 5. Throughout the Arch Street quarry, the permittee shall utilize, as necessary, wet suppression, with or without additives, foam or water on equipment and wet suppression with or without additives on haul roads, as necessary, to prevent excess emissions. .

 [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 6. The permittee shall not exceed a throughput of 3,000,000 tons of Nephline Syenite Rock at the Arch Street unit per rolling 12 month period. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]
- 7. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition #6. The permittee shall update these records by the fifteenth day of the month following the month to which the records pertain. The twelve month rolling totals and each individual month's data shall be maintained on-site, made available to Department personnel upon request, and submitted in accordance with General Provision #7.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

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

- 8. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance with this condition shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 9. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance with this condition shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 10. The permittee shall not exceed the opacity limits in the following table. Compliance shall be demonstrated by compliance with Specific Condition 5.

3M Company (3M Industrial Mineral Products Division)
Permit #: 0039-AOP-R12
AFIN: 60-00003

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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.

- 11. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM_{10} and lead. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 12. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 13. The permittee shall not exceed an opacity of 40% from any screen (SN-06, 08, 30, 32) at Arch Street. Compliance shall be demonstrated by Specific Condition 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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.

- 14. For SN-18 and SN-58, 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 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 15. For SN-18 and SN-58, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 16. The permittee shall not exceed an opacity of 40% from SN-18 or SN-58. Compliance shall be demonstrated by Specific Condition 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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.

- 17. 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 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 18. For SN-17 and SN-57, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

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

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

- 19. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM₁₀, CO, NO_X, SO₂, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 20. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 5 and 6. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 21. The permittee shall not exceed an opacity of 40% from any miscellaneous quarrying activity at Arch Street. Compliance shall be demonstrated by Specific Condition 5. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

^{*}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.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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, SO₂, VOC, CO, NO_X, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 27, 29, and 30. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 23. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, arsenic compounds, beryllium compounds, cadmium compounds, and manganese compounds. Compliance shall be demonstrated by compliance with Specific Conditions 27 and 31. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 24. The permittee shall not exceed opacity of 5% from any baghouse at College Station as measured by EPA Reference Method 9. [Regulation 18, §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 25. During periods of smoking due to re-run of oily material or diesel fuel combustion, SN-111, 112, 113, and 116 shall not exceed 20% opacity as measured by EPA Reference Method 9. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]
- 26. Observations of the opacity from each baghouse at SN-101-106, 108, 111, 112, 113, 116-119, 124, 153, 211, 214, 311 shall be conducted by personnel familiar with the facility's visible emissions once every week. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
 - a. The date and time of the observation.
 - b. If visible emissions which appeared to be above the permitted limit were detected.
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
 - d. The name of the person conducting the opacity observations.

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

116). [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6]

- 28. The permittee shall maintain monthly records to demonstrate compliance with Specific Condition 27. Records shall be updated by the 15th day following the previous month. Records shall be accompanied with a twelve month rolling total. Records shall be kept on-site and made available to Department personnel upon request. Records shall be submitted in accordance with General Provision 7. [Regulation 19, §19.705 and 40 CFR Part 52, Subpart E]
- 29. The permittee shall not consume diesel with fuel bound sulfur content greater than 0.3% by weight. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6]
- 30. The permittee shall not consume used oil with fuel bound sulfur content greater than 0.33% by weight. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6]
- 31. The permittee shall not consume used oil which exceed the levels listed in the table below, and the used oil shall meet the criteria of 40 C.F.R. §279.11. [Regulation 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6]

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

Specific Conditions

- 33. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for PM₁₀ and VOC. Compliance with this condition will be demonstrated by using the total throughput of raw granules and application rate of the slate oil, adhesion promoters, and DREW. Compliance shall be demonstrated by compliance with Specific Conditions 35 and 36. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 34. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM, methanol and toluene. Compliance with this condition will be demonstrated by using the total throughput of raw granules and application rate of the slate oil, adhesion promoters, and DREW. Compliance shall be demonstrated by compliance with Specific Conditions 35 and 36. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 35. Weekly observations of the opacity from SN-115, 154, and 155 shall be conducted by a person certified as a EPA Method 9 reader. If visible emissions in excess of 20% opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
 - a. The date and time of the observation.
 - b. If visible emissions which appeared to be above the permitted limit were detected.
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
 - d. The name of the person conducting the opacity observations.

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

- 37. The permittee shall maintain a minimum liquid flow at each scrubber listed in the table above of 70 gallons per minute, or the minimum determined during the most recent successful performance testing. The permittee shall install a flow meter at each scrubber and record liquid flow once daily. Records shall be updated daily, kept on-site, and made available to Department personnel upon request. [Regulation 18, §18.1004, 40 CFR Part 64, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 38. The permittee shall maintain monthly records demonstrating compliance with the annual bubbled limits of VOC and HAP emissions in Specific Condition 33 and 34. Records shall be updated by the 15th day following the previous month and a twelve month rolling total shall be kept. Records shall be made available to Department personnel upon request. The records shall be submitted to the Department in accordance with General Provision 7. [Regulation 19, §19.705, Regulation 18, §18.1004, and 40 CFR Part 52, Subpart E]
- 39. The permittee shall maintain monthly records of the hours of operation demonstrating compliance with the annual limit of 7100 hours for SN-155. Records shall be updated by the 15th day following the previous month and a twelve month rolling total shall be kept. Records shall be made available to Department personnel upon request. The records shall be submitted to the Department in accordance with General Provision 7. [Regulation 19, §19.705, Regulation 18, §18.1004, and 40 CFR Part 52, Subpart E]
- 40. The permittee shall test SN-154 for the following pollutants using the following test methods:

| | Total PM | PM ₁₀ | voc | Methanol | Toluene |
|-------------|----------|--------------------|-----|-----------------------|----------------------|
| Test Method | Method 5 | Method 5, 201A, | 25A | 308, 320, or TO-15 | 18, 320, or TO-15 |

This test shall take place in accordance with current Plantwide Condition #3. Testing shall be conducted with the source operating at least at 90% of its permitted capacity. Emission testing results shall be extrapolated to correlate with 100% of the permitted capacity to demonstrate compliance. Failure to test within this range shall limit the permittee to operating within 10% above the tested rate. The permittee shall measure the operation rate during the test and if testing is conducted below 90% of the permitted capacity, records shall be maintained at all times to demonstrate that the source does not

Permit #: 0039-AOP-R12

AFIN: 60-00003

exceed operation at 10% above the tested rate. [Regulation 19 \$19.702 and/or Regulation

18 §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

Specific Conditions

- 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, SO₂, VOC, CO, NO_X, and lead. Compliance shall be demonstrated by compliance with Specific Conditions 43 and 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 Conditions 44 and 45. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 43. Weekly observations of the opacity from SN-114, 128, and 129 shall be conducted by a person certified as a EPA Method 9 reader. If visible emissions in excess of 20% opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
 - a. The date and time of the observation.
 - b. If visible emissions which appeared to be above the permitted limit were detected.
 - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
 - d. The name of the person conducting the opacity observations.

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

44. 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]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

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

Specific Conditions

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 48. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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 48. [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 below. Compliance with this condition will be demonstrated by Specific Condition 48. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

- 48. 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]
- 49. The permittee shall use water and/or non-hazardous chemical sprays as needed or other methods to minimize emissions from Conveyer No. 1 and Conveyer No. 2 (SN-156 & SN-157). [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 50. The permittee shall not operate in a manner such that fugitive emissions from Conveyer No. 1 and Conveyer No. 2 (SN-156 & SN-157) (such as operation of mobile equipment upon the storage pile) and haul roads would cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall use water sprays or other techniques as necessary to control fugitive emissions. [Regulation 18, §18.501 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 51. Weekly observations of the opacity from all sources listed in the Conveyor Transfer Point source description table shall be conducted by a person certified as a EPA Method 9 reader. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and perform an EPA Reference Method 9 test to verify emissions are not in excess of the permitted level. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
 - a. The date and time of the observation.
 - b. If visible emissions which appeared to be above the permitted limit were detected.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

d. The name of the person conducting the opacity observations.

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

SN-131-135 Screens – College Station

Source Description

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

- 52. 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 48. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 53. 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 48. [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 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 48. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

- 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 and lead. Compliance shall be demonstrated by compliance with Specific Condition 48. [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 Condition 48. [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 exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 48. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

^{*}sources are either inside or underground and therefore have no opacity requirement Specific Conditions

- 58. 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 48. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 59. 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 48. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 60. 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]
- 61. The permittee shall not operate in a manner such that fugitive emissions from the Raw Stockpile (SN-308) (such as operation of mobile equipment upon the Raw Stockpile) and haul roads would cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance. The permittee shall use water

Permit #: 0039-AOP-R12

AFIN: 60-00003

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]

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

Specific Conditions

- 63. 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 48. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 64. 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 48. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

Source Description

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

Specific Conditions

65. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A for PM₁₀, lead, chromium, manganese, and cobalt compounds that result directly from coloring pigment usage at these sources. Compliance shall be demonstrated by compliance with particulate matter emission limits at these sources. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

SN-444 and 445 Gasoline tanks

Source Description

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

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

Specific Conditions

- 66. From the sources listed in the table above, the permittee shall not exceed the emission rates set forth in Appendix A of this permit for VOC. Compliance shall be demonstrated by compliance with Specific Condition 71. [Regulation 19, §19.501 and 40 CFR Part 52, Subpart E]
- 67. From the sources listed in table above, the permittee shall not exceed the emission rates set forth in Appendix A. Compliance shall be demonstrated by compliance with Specific Condition 71. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 68. The permittee shall not exceed the opacity limits in table below. Compliance with this condition will be demonstrated by Specific Condition 74. [Regulation 19, §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

| Source | Opacity Limit |
|---------|---------------|
| 444-445 | 5% |

- 69. SN-444 (550-gallon Gasoline Tank) and SN-445 (270 gallon Gasoline Tank) are gasoline storage tanks at a gasoline dispensing facility at an area source of HAPs and thus an affected source under the definitions of 40 CFR §63 Subpart CCCCCC. [Regulation 19 §19.304 and 40 CFR Part §63.11110 and 63.11132, Subpart CCCCCC]
- 70. SN444 and SN-445 started up before January 10, 2008 and thus must comply with the standards of 40 CFR §63 Subpart CCCCCC no later than January 10, 2008. [Regulation 19 §19.304 and 40 CFR Part §63.11113(a)(2) and §63.11111(b), Subpart CCCCCC]
- 71. The permittee shall have a monthly throughput of less than 10,000 gallons of gasoline at SN-444 and SN-445. [Regulation 19 §19.304 and 40 CFR Part §63.11111(b), Subpart CCCCCC]

Permit #: 0039-AOP-R12

- 72. The permittee shall, upon request by the Administrator, demonstrate that their monthly throughput at SN-444 and SN-445 is less than the 10,000-gallon threshold level. For SN-444 and SN-445 as an existing source, recordkeeping to document monthly throughput must begin on January 10, 2008. Records required under this condition shall be kept for a period of 5 years. Records must be made available within 24 hours of a request by the Administrator to document gasoline throughput at SN-P3-8. [Regulation 19 §19.304 and 40 CFR Part §63.11111(e), Subpart CCCCCC]
- 73. The permittee is not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput. [Regulation 19 §19.304 and 40 CFR Part §63.11116(b), Subpart CCCCCC]
- 74. The permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Regulation 19 §19.304 and 40 CFR Part §63.11115(a), Subpart CCCCCC]
- 75. The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [Regulation 19 §19.304 and 40 CFR Part §63.11116(a) and (d), Subpart CCCCCC]
 - a. Minimize gasoline spills;
 - b. Clean up spills as expeditiously as practicable;
 - c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use. Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with this item;
 - d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION V: COMPLIANCE PLAN AND SCHEDULE

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION VI: PLANTWIDE CONDITIONS

- 1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]
- 3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 4. The permittee must provide:
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.

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

- 5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]
- 6. This permit subsumes and incorporates all previously issued air permits for this facility. [Reg. 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

7. Nothing in this permit shall be construed to authorize a violation of the Arkansas Water and Air Pollution Control Act or the federal National Pollutant Discharge Elimination System (NPDES). [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. § 8-4-304 and 8-4-311]

Permit #: 0039-AOP-R12

AFIN: 60-00003

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 Reg.26.304 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated September 30, 2011.

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

SECTION VIII: GENERAL PROVISIONS

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

Arkansas Department of Environmental Quality 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 Reg.26.701(C)(3)(a)]

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and

ix. The name of the person submitting the report.

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

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

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

Permit #: 0039-AOP-R12

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

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

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

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

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

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

AFIN: 60-00003

Appendix A- Emission Limits

| | Source | Total | | | | | | | | | | | | |
|----------|-------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| SN | Description | PM | PM10 | NOx | SO2 | VOC | CO | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Tertiary | | | | | | | | | | | | | |
| | Crusher | | | | | | | | | | | | | |
| 1 | Baghouse | retired | | | | | | | | | | | | |
| 2 | Transfer Tower | retired | | | | | | | | | | | | |
| | Traylor | retired | | | | | | | | | | | | |
| | Primary | 3.0E+0 | 1.2E+0 | | | | | | | | | | | |
| 3 | Crusher | 0 | 0 | | | | | | | | | | | |
| | Traylor | | | | | | | | | | | | | |
| | Crusher | | | | | | | | | | | | | |
| 4 | Surge Bin | 1.4E-01 | 4.6E-02 | | | | | | | | | | | |
| _ | No. 20 | 0.05.04 | 0.45.00 | | | | | | | | | | | |
| 5 | Conveyor | 2.0E-01 2.2E+0 | 6.4E-02 | | | | | | | | | | | |
| 6 | Primary Screen | 2.2E+0 0 | 7.4E-01 | | | | | | | | | | | |
| | A.C. Primary | 6.0E+0 | 2.4E+0 | | | | | | | | | | | |
| 7 | Crusher | 0.0210 | 0 | | | | | | | | | | | |
| <u> </u> | Primary | 2.6E+0 | | | | | | | | | | | | |
| 8 | Screen | 0 | 8.9E-01 | | | | | | | | | | | |
| | Cone | | | | | | | | | | | | | |
| | Secondary | | | | | | | | | | | | | |
| 9 | Crusher | 6.0E-01 | 2.4E-01 | | | | | | | | | | | |
| 10 | No. 1 Crusher | 6.2E-02 | 2.0E-02 | | | | | | | | | | | |
| 10 | Transfer | 0.2E-02 | 2.0E-02 | | | | | | | | | | | |
| 11 | Station | 2.8E-01 | 9.2E-02 | | | | | | | | | | | |
| 12 | Load Out Bin | 2.8E-01 | 9.2E-02 | | | | | | | | | | | |
| 13 | Load Out Bin | 2.8E-01 | 9.2E-02 | | | | | | | | | | | |
| | No. 3 | | | | | | | | | | | | | |
| 14 | Conveyor | 3.3E-01 | 1.1E-01 | | | | | | | | | | | |
| | No. 3A | | | | | | | | | | | | | |
| 15 | Conveyor A.C. | 2.9E-01 | 9.4E-02 | | | | | | | | | | | |
| | A.C. Crusher | | | | | | | | | | | | | |
| 16 | Surge Bin | 2.8E-01 | 9.2E-02 | | | | | | | | | | | |
| -10 | Tertiary | 2.02 01 | J.ZL 0Z | | | | | | | | | | | |
| | Crushing | 1.2E+0 | 1.2E+0 | | | | | | | | | | | |
| 17 | Stock Pile | 0 | 0 | | | | | | | | | | | |
| | Railroad | | | | | | | | | | | | | |
| 18 | Loadout | 2.1E-01 | 6.9E-02 | | | | | | | | | | | |
| 19 | Feeders | 1.7E-01 | 5.5E-02 | | | | | | | | | | | |
| 20 | No. 4 | 2.25.02 | 4 4 5 00 | | | | | | | | | | | |
| 20 28 | Conveyor No. 5 | 3.3E-02 4.2E-02 | 1.1E-02 1.4E-02 | | | | | | | | | | | |
| 28 | O .UVI | 4.ZE-UZ | 1.4⊏-02 | | | | | | | 1 | |] |] | |

| SN | Source Description | Total PM | PM10 | NOx | SO2 | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|------|------------------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 014 | Description | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Conveyor | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) |
| | No. 6 | | | | | | | | | | | | | |
| 29 | Conveyor | 3.1E-01 | 1.0E-01 | | | | | | | | | | | |
| | Conveyor | 1.3E+0 | 1.02 01 | | | | | | | | | <u> </u> | | |
| 30 | Screen | 0 | 4.4E-01 | | | | | | | | | | | |
| | | 1.2E+0 | | | | | | | | | | | | |
| 31 | Crusher | 0 | 4.8E-01 | | | | | | | | | | | |
| | 0.000.00 | 1.3E+0 | | | | | | | | | | | | |
| 32 | Screen | 0 | 4.4E-01 | | | | | | | | | | | |
| | | 1.2E+0 | | | | | | | | | | | | |
| 33 | Crusher | 0 | 4.8E-01 | | | | | | | | | | | |
| | Overburden | 1.5E+0 | 1.5E+0 | | | | | | | | | | | |
| 50 | Removal | 0 | 0 | | | | | | | | | | | |
| 51 | Drilling | 1.3E-01 | 1.3E-01 | | | | | | | | | | | |
| 52 | Blasting | 1.0E-01 | 5.2E-02 | | | | | | | | | | | |
| | Blasting | | | | | | | | | | | | | |
| | Explosives | | | 1.4E+0 | 1.6E+0 | | 5.4E+0 | | | | | | | |
| 53 | (ÅNFO) | 0 | 0 | 1 | 0 | 0 | 1 | | | | | | | |
| | Quarry Truck | | | | | | | | | | | | | |
| 54 | Loading | 1.6E-01 | 1.6E-01 | | | | | | | | | | | |
| | Quarry Truck | 3.8E+0 | 1.1E+0 | | | | | | | | | | | |
| 55 | Traffic | 1 25.0 | 1 1.3E+0 | | | | | | | | | | | |
| 57 | Emergency | 1.3E+0 | | | | | | | | | | | | |
| 57 | Stockpile Emergency | 0 | 0 | | | | | | | | | | | |
| | Railroad | | | | | | | | | | | | | |
| 58 | Loadout | 2.2E-01 | 7.4E-02 | | | | | | | | | | | |
| - 50 | Conveyor | 2.2L-01 | 7.4L-02 | | | | | | | | | | | |
| | from A.C. | | | | | | | | | | | | | |
| 59 | Crusher | 2.1E-01 | 6.9E-02 | | | | | | | | | | | |
| | Dryer Feed | 2.5E+0 | 2.5E+0 | | | | | | | | | | | |
| 101 | End (BH) | 0 | 0 | | | | | | | | | | | |
| | C&S Line #1 | 2.4E+0 | 2.4E+0 | | | | | | | | | | | |
| 102 | (BH) | 0 | 0 | | | | | | | | | | | |
| | C&S Line #2 | 2.4E+0 | 2.4E+0 | | | | | | | | | | | |
| 103 | (BH) | 0 | 0 | | | | | | | | | | | |
| | C&S Line #3 | 2.7E+0 | 2.7E+0 | | | | | | | | | | | |
| 104 | (BH) | 0 | 0 | | | | | | | | | | | |
| | Filler Screen | 1.0E+0 | 1.0E+0 | | | | | | | | | | | |
| 105 | Baghouse | 0 | 0 | | | | | | | | | | | |
| | Product & | | | | | | | | | | | | | |
| | Tripper Flr. | 1.0E+0 | 1.0E+0 | | | | | | | | | | | |
| 106 | (BH) | 0 | 0 | | | | | | | | | | | |
| 107 | Feeders | 7.7E-02 | 2.5E-02 | l | | | | | | | | | | |

| SN | Source Description | Total PM | PM10 | NOx | SO2 | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|-----|------------------------|-------------------|-------------|------------|------------|-------------------|----------|------------|------------|------------|------------|------------|------------|------------|
| 0.1 | Description | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Dryer No. 1 | 5.8E+0 | 5.8E+0 | (1.00,111) | (1.20/111) | (1.50,111) | 5.8E+0 | (1.00/111) | (1.50,111) | (1.50,111) | (1.00,111) | (1.00,111) | (1.00,111) | (1.00/111) |
| 108 | Baghouse | 0 | 0 | 4.1E-02 | 4.1E-02 | 3.8E-01 | 0 | 6.4E-04 | 9.3E-02 | 3.5E-02 | 2.9E-03 | 7.2E-05 | 6.2E-05 | 3.1E-05 |
| | No. 1 Kiln | 3.2E+0 | 3.2E+0 | | | | 4.4E+0 | | | | | | | |
| 111 | Baghouse | 0 | 0 | 3.2E-02 | 3.2E-02 | 2.9E-01 | 0 | 3.5E-04 | 5.1E-02 | 1.9E-02 | 1.6E-03 | 4.0E-05 | 3.5E-05 | 1.7E-05 |
| | No. 2 Kiln | 3.2E+0 | 3.2E+0 | | | | 4.4E+0 | | | | | | | |
| 112 | Baghouse | 0 | 0 | 3.2E-02 | 3.2E-02 | 2.9E-01 | 0 | 3.5E-04 | 5.1E-02 | 1.9E-02 | 1.6E-03 | 4.0E-05 | 3.5E-05 | 1.7E-05 |
| 440 | No. 3 Kiln | 3.2E+0 | 3.2E+0 | 0.05.00 | 0.05.00 | 0.05.04 | 4.4E+0 | 0.55.04 | 5 45 00 | 4.05.00 | 4.05.00 | 4.05.05 | 0.55.05 | 4.75.05 |
| 113 | Baghouse | 0 | 0 | 3.2E-02 | 3.2E-02 | 2.9E-01 | 0 | 3.5E-04 | 5.1E-02 | 1.9E-02 | 1.6E-03 | 4.0E-05 | 3.5E-05 | 1.7E-05 |
| 114 | No. 2 Mixer (Scrubber) | 1.3E+0 0 | 1.3E+0 | 5.9E-04 | 5.9E-04 | 1.3E-02 | 8.2E-02 | 1.4E-04 | 2.1E-02 | 7.8E-03 | 6.55.04 | 1 CF OF | 1.4E-05 | 6.9E-06 |
| 114 | No. 1 Cooler | 4.8E+0 | 0 4.8E+0 | 3.9E-04 | 5.9E-04 | 1.3E-02 1.1E+0 | 0.2E-02 | 1.46-04 | 2.1E-02 | 7.00-03 | 6.5E-04 | 1.6E-05 | 1.4E-03 | 0.9E-00 |
| 115 | (Scrubber) | 0 | 0 | 0 | 0 | 1.12+0 | 0 | 5.3E-04 | 7.8E-02 | 2.9E-02 | 2.5E-03 | 6.1E-05 | 5.2E-05 | 2.6E-05 |
| 110 | Dryer No. 2 | 3.2E+0 | 3.2E+0 | _ ĭ | Ŭ | | 2.5E+0 | 0.02 0 1 | 7.02 02 | 2.02 02 | 2.02 00 | 0.12 00 | 0.22 00 | 2.02 00 |
| 116 | Baghouse | 0 | 0.22.0 | 1.8E-02 | 1.8E-02 | 1.6E-01 | 0 | 3.5E-04 | 5.1E-02 | 1.9E-02 | 1.6E-03 | 4.0E-05 | 3.5E-05 | 1.7E-05 |
| | No. 1 Clay | | | | | | | | | | | | | |
| | Tank | | | | | | | | | | | | | |
| 117 | Baghouse | 1.9E-04 | 9.6E-04 | | | | | | | | | | | |
| | No. 2 Clay | | | | | | | | | | | | | |
| 440 | Tank | 4.05.04 | 0.05.04 | | | | | | | | | | | |
| 118 | Baghouse | 1.9E-04 | 9.6E-04 | | | | | | | | | | | |
| | No. 3 Clay Tank | | | | | | | | | | | | | |
| 119 | Baghouse | 1.9E-04 | 9.6E-04 | | | | | | | | | | | |
| 110 | Dagnouse | Emissio | 3.0L 04 | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controll | | | | | | | | | | | | |
| | | ed by | | | | | | | | | | | | |
| | No. 04 | SN-115, | | | | | | | | | | | | |
| 121 | No. 21 Elevator | SN-154, SN-155 | | | | | | | | | | | | |
| 141 | Lievatoi | Emissio | | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controll | | | | | | | | | | | | |
| | | ed by | | | | | | | | | | | | |
| | N 00 | SN-115, | | | | | | | | | | | | |
| 400 | No. 22 | SN-154, | | | | | | | | | | | | |
| 122 | Elevator | SN-155 | | | | | | | | | | | | |
| | No. 23 | Emissio ns are | | | | | | | | | | | | |
| 123 | Elevator | routed | | | | | | | | | | | | |
| 120 | Licyator | routou | l | l | l | | l | l | | l | L | 1 | l . | l |

| | Source | Total | | | | | | | | | | | | |
|-----|------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| SN | Description | PM | PM10 | NOx | SO2 | VOC | CO | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | | and controll | | | | | | | | | | | | |
| | | ed by | | | | | | | | | | | | |
| | | SN-115, | | | | | | | | | | | | |
| | | SN-115, SN-154, | | | | | | | | | | | | |
| | | SN-154, | | | | | | | | | | | | |
| | Coloring | 014 100 | | | | | | | | | | | | |
| | Feed End | 1.3E+0 | 1.3E+0 | | | | | | | | | | | |
| 124 | Baghouse | 0 | 0 | | | | | | | | | | | |
| | No. 3 Mixer | 1.3E+0 | 1.3E+0 | | | | | | | | | | | |
| 128 | (Scrubber) | 0 | 0 | 5.9E-04 | 5.9E-04 | 1.3E-02 | 8.2E-02 | 1.4E-04 | 2.1E-02 | 7.8E-03 | 6.5E-04 | 1.6E-05 | 1.4E-05 | 6.9E-06 |
| | No. 1 Mixer | 1.3E+0 | 1.3E+0 | | | | | | | | | | | |
| 129 | (Scrubber) | 0 | 0 | 5.9E-04 | 5.9E-04 | 1.3E-02 | 8.2E-02 | 1.4E-04 | 2.1E-02 | 7.8E-03 | 6.5E-04 | 1.6E-05 | 1.4E-05 | 6.9E-06 |
| | | Emissio | | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed and | | | | | | | | | | | | |
| | | controll | | | | | | | | | | | | |
| | | ed by | | | | | | | | | | | | |
| | | SN-115, | | | | | | | | | | | | |
| | Screen No. | SN-154, | | | | | | | | | | | | |
| 131 | 25 | SN-155 | | | | | | | | | | | | |
| | | Emissio | | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controll | | | | | | | | | | | | |
| | | ed by SN-115, | | | | | | | | | | | | |
| | Screen No. | SN-113, | | | | | | | | | | | | |
| 132 | 26 | SN-155 | | | | | | | | | | | | |
| | | Emissio | | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controll | | | | | | | | | | | | |
| | | ed by | | | | | | | | | | | | |
| | 0 N | SN-115, | | | | | | | | | | | | |
| 133 | Screen No. 29 | SN-154, SN-155 | | | | | | | | | | | | |
| 133 | 23 | Emissio | | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed | | | | | | | | | | | | |
| | Screen No. | and | | | | | | | | | | | | |
| 134 | 28 | controll | | | | | | | | | | | | |

| | Source | Total | | | | | | | | | | | | |
|------|-------------------------|--------------------|------------------|-----------------|-----------------|-----------------|----------------|------------------|----------------------|-----------|--------------------|---------------------|---------------------|-----------------------|
| SN | Description | PM | PM10 (lbs/hr) | NOx (lbs/hr) | SO2 (lbs/hr) | VOC (lbs/hr) | CO (lbs/hr) | lead (lbs/hr) | chromium (lbs/hr) | manganese | cobalt (lbs/hr) | arsenic (lbs/hr) | cadmium (lbs/hr) | beryllium (lbs/hr) |
| | | (lbs/hr) ed by | (IDS/III) | (IDS/III) | (IDS/III) | (IDS/III) | (IDS/III) | (IDS/III) | (IDS/III) | (lbs/hr) | (IDS/III) | (IDS/III) | (IDS/III) | (IDS/III) |
| | | SN-115, | | | | | | | | | | | | |
| | | SN-154, | | | | | | | | | | | | |
| | | SN-155 | | | | | | | | | | | | |
| | | Emissio | | | | | | | | | | | | |
| | | ns are | | | | | | | | | | | | |
| | | routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controll | | | | | | | | | | | | |
| | | ed by SN-115, | | | | | | | | | | | | |
| | Screen No. | SN-115, SN-154, | | | | | | | | | | | | |
| 135 | 27 | SN-154, | | | | | | | | | | | | |
| | Waste & | | | | | | | | | | | | | |
| | Raw | 1.5E+0 | 1.5E+0 | | | | | | | | | | | |
| 153 | Granule(BH) | 0 | 0 | | | | | | | | | | | |
| 154 | No. 2 Cooler (Scrubber) | 4.8E+0 | 4.8E+0 | 0 | 0 | 1.1E+0 | 0 | 5.3E-04 | 7.8E-02 | 2.9E-02 | 2.5E-03 | 6.1E-05 | 5.2E-05 | 2.6E-05 |
| 154 | No. 3 Cooler | 0 4.8E+0 | 0 4.8E+0 | U | U | 1 1.1E+0 | U | 5.3⊑-04 | 7.0E-UZ | 2.9E-02 | 2.5E-03 | 6.1E-05 | 5.ZE-05 | 2.0E-05 |
| 155 | (Scrubber) | 0 | 0 | 0 | 0 | 1.12+0 | 0 | 5.3E-04 | 7.8E-02 | 2.9E-02 | 2.5E-03 | 6.1E-05 | 5.2E-05 | 2.6E-05 |
| 100 | Conveyor | 0 | 0 | 0 | 0 | ' | | 0.0L 04 | 7.02-02 | Z.3L 0Z | 2.00 | 0.12-03 | J.ZL 03 | 2.02 00 |
| 156 | No. 1 | 1.9E-01 | 6.4E-02 | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 157 | No. 2 | 1.1E-01 | 3.6E-02 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 158 | No. 20 | 2.7E-02 | 9.0E-03 | | | | | 0.000 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | | | | | | | | | | | | | |
| 159 | Conveyor No. 21 | 2.7E-02 | 9.0E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 139 | Transfer | 2.7 L-02 | 9.0∟-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Conveyor | | | | | | | | | | | | | |
| 160 | No. 22 | 2.7E-02 | 9.0E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | | | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 161 | No. 23 | 5.6E-02 | 1.8E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | | | | | | | | | | | | | |
| 100 | Conveyor No. 24 | 4.05.00 | 4.65.00 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 162 | No. 24 Transfer | 4.9E-02 | 1.6E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Conveyor | | | | | | | | | | | | | |
| 163 | No. 25 | 6.1E-02 | 2.0E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| . 50 | Transfer | J UL | | | | | | 3.00 | 3.00 | 3.00 | 3.00 | | | 1 |
| 164 | Conveyor | 4.6E-02 | 1.5E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |

| SN | Source Description | Total PM | PM10 | NOx | SO2 | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|-----|------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| | • | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | No. 33 | | | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 165 | No. 34 | 4.9E-02 | 1.6E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | | | | | | | | | | | | | |
| 400 | Conveyor No. 35 | 5 55 00 | 4.05.00 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 166 | Transfer | 5.5E-02 | 1.8E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Conveyor | | | | | | | | | | | | | |
| 167 | No. 36 | 3.5E-02 | 1.2E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 107 | Transfer | 0.02 02 | 1.22 02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Conveyor | | | | | | | | | | | | | |
| 168 | No. 37 | 4.7E-02 | 1.5E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | | | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 169 | No. 39 | 6.1E-02 | 2.0E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | | | | | | | | | | | | | |
| 170 | Conveyor No. 40 | 6.2E-02 | 2.0E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 170 | Transfer | 0.ZE-UZ | 2.0E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Conveyor | | | | | | | | | | | | | |
| 171 | No. 41 | 1.1E-01 | 3.6E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Transfer | _ | | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 172 | No. 42 | 9.8E-02 | 3.2E-02 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Conveyor | | | | | | | | | | | | | |
| 173 | No. 15 | 2.3E-02 | 7.6E-03 | | | | | | | | | | | |
| 474 | Conveyor No. 16 | 2.3E-02 | 7.6E-03 | | | | | | | | | | | |
| 174 | Conveyor | 2.3E-02 | 7.0E-03 | | | | | | | | | | | |
| 175 | No. 31 | 2.8E-02 | 9.2E-03 | | | | | | | | | | | |
| 183 | Pugmill | 3.5E-02 | 1.2E-02 | | | | | | | | | | | |
| 184 | Pugmill | 3.5E-02 | 1.2E-02 | | | | | | | | | | | |
| | Bucket | | _ | | | | | | | | | | | |
| | Elevator No. | | | | | | | | | | | | | |
| 186 | 18 | 2.0E-02 | 6.4E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
|] | Bucket | | | | | | | | | | | | | |
| 407 | Elevator No. | 0.45.00 | 0.05.00 | | | | | 0.00 | 0.00 | 0.00 | | | | |
| 187 | 19 | 2.1E-02 | 6.9E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Bucket Elevator No. | | | | | | | | | | | | | |
| 188 | 20 | 2.0E-02 | 6.4E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 100 | Bucket | 2.UL-UZ | 0.4L-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 189 | Elevator No. | 2.6E-02 | 8.6E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |

| | Source | Total | | | | | | | | | | | | |
|-----|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| SN | Description | PM | PM10 | NOx | SO2 | VOC | CO | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | 24 | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Bucket | | | | | | | | | | | | | |
| | Elevator No. | | | | | | | | | | | | | |
| 190 | 25 | 1.1E-02 | 3.7E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Bucket Elv. | | | | | | | | | | | | | |
| | No. 27 | | | | | | | | | | | | | |
| 191 | (Silicate Plt.) | 5.6E-02 | 1.8E-02 | | | | | | | | | | | |
| | Finished Granule | | | | | | | | | | | | | |
| | Storage/Loa | | | | | | | | | | | | | |
| 194 | ding | 2.8E-02 | 9.2E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Waste | | | | | | | | | | | | | |
| | Granule | | | | | | | | | | | | | |
| 405 | Storage/Loa | 4 45 00 | 4.05.00 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 195 | ding Product Bin | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 199 | P1 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 100 | Product Bin | 11.12.02 | 1.02 00 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 200 | P2 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| | Product Bin | | | | | | | | | | | | | |
| 201 | P3 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 202 | Product Bin P4 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 202 | Product Bin | 1.46-02 | 4.00-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 203 | P5 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| | Product Bin | | | | | | | | | | | | | |
| 204 | P6 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 005 | Product Bin | 4 45 00 | 4.05.00 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 205 | P7 Product Bin | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 206 | Product Biri P8 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 200 | Waste Bin | 1.42 02 | 4.0L 00 | | | | | 0.00 | 0.02 | 0.00 | 0.00 | | | |
| 207 | W21 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.01 | 0.00 | 0.00 | | | |
| | Waste Bin | | | | | | | | | | | | | |
| 208 | W22 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.01 | 0.00 | 0.00 | | | |
| 209 | Waste Bin W23 | 1.4E-02 | 4.6E-03 | | | | | 0.00 | 0.01 | 0.00 | 0.00 | | | |
| 209 | Waste Bin | 1.4E-02 | 4.00-03 | | | | | 0.00 | 0.01 | 0.00 | 0.00 | | | |
| 210 | W24 | 6.3E-03 | 3.1E-02 | | | | | 0.00 | 0.01 | 0.00 | 0.00 | | | |
| | Covered | | | | | | | | | | | | | |
| | Raw Gran. | | | | | | | | | | | | | |
| | Stockpile | 0.55.00 | 4.05.00 | | | | | | | | | | | |
| 211 | (BH) | 3.5E-02 | | | | | | | | | - | | | |
| 212 | Conveyor | 3.5E-02 | 1.2E-02 | 1 | 1 | 1 | I | 1 | | | 1 | 1 | Ī | Ī |

| CN | Source | Total PM | PM10 | NOx | SO2 | voc | СО | laad | -b | | a a b a l t | | | h a m dli |
|----------|-------------------------------|-------------|-------------------|-----------|-----------|-----------|-----------|------------------|----------------------|-----------------------|--------------------|---------------------|---------------------|-----------------------|
| SN | Description | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | lead (lbs/hr) | chromium (lbs/hr) | manganese (lbs/hr) | cobalt (lbs/hr) | arsenic (lbs/hr) | cadmium (lbs/hr) | beryllium (lbs/hr) |
| | No. 43 | (105/111) | (IDS/III) | (105/111) | (IDS/III) | (105/111) | (IDS/III) | (IDS/III) | (105/111) | (105/111) | (IDS/III) | (IDS/III) | (105/111) | (105/111) |
| | Conveyor | | | | | | | | | | | | | |
| 213 | No. 44 | 3.5E-03 | 5.8E-03 | | | | | | | | | | | |
| | IC Circuit | | | | | | | | | | | | | |
| 214 | Baghouse | 3.9E-03 | 1.3E-03 | | | | | | | | | | | |
| | Kiln Dust | | | | | | | | | | | | | |
| 045 | Conveyor No. 27 | 0.05.00 | 0.45.00 | | | | | | | | | | | |
| 215 | Transfer | 6.3E-03 | 2.1E-03 | | | | | | | | | | | |
| | Conveyor | | | | | | | | | | | | | |
| 216 | No. 28 | 1.4E-02 | 4.6E-03 | | | | | | | | | | | |
| | Train Car | | | | | | | | | | | | | |
| 300 | Unload | 1.4E-02 | 4.6E-03 | | | | | | | | | | | |
| | Truck | | | | | | | | | | | | | |
| 301 | Loading at Pugmill | 3.5E-02 | 1.2E-02 | | | | | | | | | | | |
| 301 | Mineral | 3.3E-02 | 1.2E-02 | | | | | | | | | | | |
| | Unloading at | | | | | | | | | | | | | |
| | Wet | | | | | | | | | | | | | |
| 302 | Stockpile | 2.0E-01 | 2.0E-01 | | | | | | | | | | | |
| | Wet | | | | | | | | | | | | | |
| | Stockpile | 1.3E+0 | 2.7E+0 | | | | | | | | | | | |
| 303 | Fugitives | 1 | 0 | | | | | | | | | | | |
| | Plant Vehicle Traffic/Haul | | | | | | | | | | | | | |
| 306 | Off | 7.8E-02 | 7.8E-02 | | | | | | | | | | | |
| - 000 | Temporary | 7.02 02 | 7.02 02 | | | | | | | | | | | |
| | Storage | | | | | | | | | | | | | |
| | Stockpile | | | | | | | | | | | | | |
| 307 | Drop | 3.9E-01 | 3.9E-01 | | | | | | | | | | | |
| 308 | Raw Stockpile | 5.6E-02 | 1.8E-02 | | | | | | | | | | | |
| 306 | Truck/Railcar | 1.3E+0 | 1.8E-02 1.3E+0 | | | | | | | | | + | | |
| 310 | Loading | 0 | 0 | | | | | | | | | | | |
| <u> </u> | Automated | | | | | | | | | | | | | |
| | Mixing | | | | | | | | | | | | | |
| 311 | System | 1.4E-04 | 4.6E-05 | | | | | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| | Truck | | | | | | | | | | | | | |
| | Loading- Copper Dust | | | | | | | | | | | | | |
| 313 | Loadout | 5.6E-02 | 1.8E-02 | | | | | | | | | | | |
| 313 | Gasoline | 0.0L 0Z | 1.02 02 | | | | | | | | | | | |
| 444 | tank (arch) | | | | | 12.40 | | | | | | | | |
| 445 | Gasoline | | | | | 4.96 | | | | | | | | |

| SN | Source Description | Total PM | PM10 | NOx | SO2 | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|----|-----------------------|-------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| | | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | tank | | | | | | | | | | | | | |
| | (college) | | | | | | | | | | | | | |
| | Total | | | | | | | | | | | | | |
| | Pounds/hou | | | | | | | | | | | | | |
| | r = | 134.05 | 90.58 | 13.76 | 1.76 | 51.16 | 75.43 | 4.1E-03 | 8.0E-01 | 2.3E-01 | 1.9E-02 | 4.7E-04 | 4.0E-04 | 2.0E-04 |

| | Source | | | | | | | | | | | |
|------|------------------------|----------|----------|----------|----------|-----------------|--------------|----------|----------|--------------|--------------|----------|
| SN | Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Mercury | Nickel | POM | Selenium |
| | | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Tertiary Crusher | ` ′ | ` ′ | , , | , | ` ' | , , | ` ′ | ` ′ | ` <i>′</i> | , , | ` ′ |
| 1 | Baghouse | | | | | | | | | | | |
| 2 | Transfer Tower | | | | | | | | | | | |
| | Traylor Primary | | | | | | | | | | | |
| 3 | Crusher | | | | | | | | | | | |
| | Traylor Crusher | | | | | | | | | | | |
| 4 | Śurge Bin | | | | | | | | | | | |
| | No. 20 | | | | | | | | | | | |
| 5 | Conveyor | | | | | | | | | | | |
| 6 | Primary Screen | | | | | | | | | | | |
| | A.C. Primary | | | | | | | | | | | |
| 7 | Crusher | | | | | | | | | | | |
| 8 | Primary Screen | | | | | | | | | | | |
| | Cone | | | | | | | | | | | |
| | Secondary | | | | | | | | | | | |
| 9 | Crusher | | | | | | | | | | | |
| 10 | No. 1 Crusher | | | | | | | | | | | |
| 11 | Transfer Station | | | | | | | | | | | |
| 12 | Load Out Bin | | | | | | | | | | | |
| 13 | Load Out Bin | | | | | | | | | | | |
| 14 | No. 3 Conveyor | | | | | | | | | | | |
| | No. 3A | | | | | | | | | | | |
| 15 | Conveyor | | | | | | | | | | | |
| | A.C. Crusher | | | | | | | | | | | |
| 16 | Surge Bin | | | | | | | | | | | |
| | Tertiary | | | | | | | | | | | |
| 47 | Crushing Śtock Pile | | | | | | | | | | | |
| 17 | Railroad | | | | | | | | | | | |
| 18 | Loadout | | | | | | | | | | | |
| 19 | Feeders | | | | | | | | | | | |
| 20 | No. 4 Conveyor | | | | | | | | | | | |
| 28 | No. 5 Conveyor | | | | | | | | | 1 | - | |
| 29 | No. 6 Conveyor | | | | | | | | | 1 | | |
| 30 | Screen | | | | | | | | | 1 | | |
| 31 | Crusher | | | | | | | | | | | |
| 32 | Screen | | | | | | | | | | | |
| 33 | Crusher | | | | | | | | | | | |
| - 55 | Overburden | | | | | | | | | | | |
| 50 | Removal | | | | | | | | | 1 | | |
| 51 | Drilling | | | | | | | | | | | |
| 52 | Blasting | | | | | | | | | | | |
| 02 | Diading | l | l . | | 1 | | l | | | 1 | l | |

| SN | Source Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldahyda | Hexane | Moroury | Nickel | POM | Selenium |
|-----|-------------------------|-----------|-----------|----------------------|-----------|-----------------|--------------------------|-----------|---------------------|-----------|-----------|-----------|
| SIN | Description | (lbs/hr) | (lbs/hr) | Antimony (lbs/hr) | (lbs/hr) | (lbs/hr) | Formaldehyde (lbs/hr) | (lbs/hr) | Mercury (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Blasting | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) | (105/111) |
| | Explosives | | | | | | | | | | | |
| 53 | (ANFO) | | | | | | | | | | | |
| | Quarry Truck | | | | | | | | | | | |
| 54 | Loading | | | | | | | | | | | |
| | Quarry Truck | | | | | | | | | | | |
| 55 | Traffic | | | | | | | | | | | |
| | Emergency | | | | | | | | | | | |
| 57 | Stockpile | | | | | | | | | | | |
| | Emergency Railroad | | | | | | | | | | | |
| 58 | Loadout | | | | | | | | | | | |
| 30 | Conveyor from | | | | | | | | | | | |
| 59 | A.C. Crusher | | | | | | | | | | | |
| 60 | Parallel Crusher | | | | | | | | | | | |
| | No. 45 | | | | | | | | | | | |
| 61 | Conveyor | | | | | | | | | | | |
| | No. 46 | | | | | | | | | | | |
| 62 | Conveyor | | | | | | | | | | | |
| | Dryer Feed End | | | | | | | | | | | |
| 101 | (BH) | | | | | | | | | | | |
| 400 | C&S Line #1 | | | | | | | | | | | |
| 102 | (BH) C&S Line #2 | | | | | | | | | | | |
| 103 | (BH) | | | | | | | | | | | |
| 103 | C&S Line #3 | | | | | | | | | | | |
| 104 | (BH) | | | | | | | | | | | |
| | Filler Screen | | | | | | | | | | | |
| 105 | Baghouse | | | | | | | | | | | |
| | Product & | | | | | | | | | | | |
| | Tripper Flr. | | | | | | | | | | | |
| 106 | (BH) | | | | | | | | | | | |
| 107 | Feeders | | | - | | | | | ļ | | | |
| 108 | Dryer No. 1 Baghouse | | 2.3E-04 | 2.2E-05 | 1.4E-04 | 8.2E-05 | E 1E 02 | 1.2E-01 | 3.1E-05 | 2.5E-04 | 3.0E-03 | 1.6E-05 |
| 108 | JB Conveyor | | ∠.3⊑-04 | ∠.∠E-U5 | 1.4⊑-04 | ŏ.∠E-U5 | 5.1E-03 | 1.∠E-U1 | 3.1E-05 | ∠.5E-04 | ა.∪⊑-∪პ | 1.0E-05 |
| 109 | No. 7 Filler Tank | | 1 | | | | | | | | | |
| 110 | (BH) | | | | | | | | | | | |
| | No. 1 Kiln | | | | | | | | | | | |
| 111 | Baghouse | | 1.8E-04 | 1.2E-05 | 1.1E-04 | 6.4E-05 | 4.0E-03 | 9.5E-05 | 1.7E-05 | 1.4E-04 | 2.3E-03 | 8.9E-06 |
| | No. 2 Kiln | | | | | | | | | | | |
| 112 | Baghouse | | 1.8E-04 | 1.2E-05 | 1.1E-04 | 6.4E-05 | 4.0E-03 | 9.5E-05 | 1.7E-05 | 1.4E-04 | 2.3E-03 | 8.9E-06 |
| | No. 3 Kiln | | | | | | | | | | | |
| 113 | Baghouse | | 1.8E-04 | 1.2E-05 | 1.1E-04 | 6.4E-05 | 4.0E-03 | 9.5E-05 | 1.7E-05 | 1.4E-04 | 2.3E-03 | 8.9E-06 |

| | Source | | | | _ | | | | | | | |
|-----|---------------------------------|----------|----------|----------|----------|-----------------|--------------|----------|----------|----------|----------|----------|
| SN | Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Mercury | Nickel | POM | Selenium |
| | N. 0 M. | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| 444 | No. 2 Mixer | | 0.05.00 | 4.05.00 | 0.45.00 | 4.05.00 | 7 45 05 | 4.05.00 | 7.05.00 | 5 7F 05 | 4.05.05 | 0.05.00 |
| 114 | (Scrubber) | | 3.3E-06 | 4.9E-06 | 2.1E-06 | 1.2E-06 | 7.4E-05 | 1.8E-03 | 7.0E-06 | 5.7E-05 | 4.2E-05 | 3.6E-06 |
| 115 | No. 1 Cooler (Scrubber) | 0.33 | 7.1E-05 | 1.8E-05 | | | | | 2.6E-05 | 2.1E-04 | | 1.4E-05 |
| 113 | Dryer No. 2 | 0.33 | 7.1E-03 | 1.6E-03 | | | | | 2.00-03 | 2.16-04 | | 1.4E-03 |
| 116 | Baghouse | | 1.0E-04 | 1.2E-05 | 6.3E-05 | 3.5E-05 | 2.2E-03 | 5.3E-02 | 1.7E-05 | 1.4E-04 | 1.3E-03 | 8.9E-06 |
| 110 | No. 1 Clay Tank | | 1.02-04 | 1.2L-03 | 0.3L-03 | 3.3L-03 | 2.2L-03 | 3.3L-02 | 1.7L-03 | 1.4L-04 | 1.3L-03 | 0.9L-00 |
| 117 | Baghouse | | | | | | | | | | | |
| | No. 2 Clay Tank | | | | | | | | | | | |
| 118 | Baghouse | | | | | | | | | | | |
| | No. 3 Clay Tank | | | | | | | | | | | |
| 119 | Baghouse | | | | | | | | | | | |
| | Sodium Silicate | | | | | | | | | | | |
| 120 | Bin | | | | | | | | | | | |
| 121 | No. 21 Elevator | | | | | | | | | | | |
| 122 | No. 22 Elevator | | | | | | | | | | | |
| 123 | No. 23 Elevator | | | | | | | | | | | |
| | Coloring Feed | | | | | | | | | | | |
| 124 | End Baghouse | | | | | | | | | | | |
| | No. 3 Mixer | | | | | | | | | | | |
| 128 | (Scrubber) | | 3.3E-06 | 4.9E-06 | 2.1E-06 | 1.2E-06 | 7.4E-05 | 1.8E-03 | 7.0E-06 | 5.7E-05 | 4.2E-05 | 3.6E-06 |
| | No. 1 Mixer | | | | | | | | | | | |
| 129 | (Scrubber) | | 3.3E-06 | 4.9E-06 | 2.1E-06 | 1.2E-06 | 7.4E-05 | 1.8E-03 | 7.0E-06 | 5.7E-05 | 4.2E-05 | 3.6E-06 |
| | Sodium Silicate | | | | | | | | | | | |
| 130 | Plant Boiler | | | | | | | | | | | |
| 131 | Screen No. 25 | | | | | | | | | | | |
| 132 | Screen No. 26 | | | | | | | | | | | |
| 133 | Screen No. 29 | | | | | | | | | | | |
| 134 | Screen No. 28 | | | | | | | | | | | |
| 135 | Screen No. 27 | | | | | | | | | | | |
| 150 | IC Circuit - Silo | | | | | | | | | | | |
| 150 | No. 1 (BH) IC Circuit - Silo | | | | | | | | | | | |
| 151 | No. 2 (BH) | | | | | | | | | | | |
| 131 | IC Circuit - Silo | | | | | | | | | | | |
| 152 | No. 3 (BH) | | | | | | | | | | | |
| 102 | Waste & Raw | | 1 | | | | | | | | | |
| 153 | Granule(BH) | | | | | | | | | | | |
| 100 | No. 2 Cooler | | | | | | | | | | | |
| 154 | (Scrubber) | 0.33 | 7.1E-05 | 1.8E-05 | | | | | 2.6E-05 | 2.1E-04 | | 1.4E-05 |
| | No. 3 Cooler | | 111233 | 1.52 50 | | | | | _:3_ 33 | | | 2 30 |
| 155 | (Scrubber) | 0.33 | 7.1E-05 | 1.8E-08 | | | | | 2.6E-05 | 2.1E-04 | | 1.4E-05 |
| 156 | Conveyor No. 1 | | | | | | | | | | | |
| 157 | Conveyor No. 2 | | | | | | | | İ | | | |

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

| SN | Source Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Mercury | Nickel | POM | Selenium |
|-----|-----------------------|-----------|-----------|-----------|-----------|-----------------|--------------|-----------|-----------|-----------|-----------|-----------|
| 011 | Description | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | 42 | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (153/111) | (153/111) |
| | Conveyor No. | | | | | | | | | | | |
| 173 | 15 | | | | | | | | | | | |
| 110 | Conveyor No. | | | | | | | | | | | |
| 174 | 16 | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 175 | 31 | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| | 31A (Silicate | | | | | | | | | | | |
| 176 | Plant) | | | | | | | | | | | |
| 183 | Pugmill | | | | | | | | | | | |
| 184 | Pugmill | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 186 | No. 18 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 187 | No. 19 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 188 | No. 20 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 189 | No. 24 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 190 | No. 25 | | | | | | | | | | | |
| | Bucket Elv. No. | | | | | | | | | | | |
| 191 | 27 (Silicate Plt.) | | | | | | | | | | | |
| | Finished | | | | | | | | | | | |
| | Granule | | | | | | | | | | | |
| 194 | Storage/Loading | | | | | | | | | | | |
| 405 | Waste Granule | | | | | | | | | | | |
| 195 | Storage/Loading | | | | | | | | | | | |
| 199 | Product Bin P1 | | | | | | | | | | | |
| 200 | Product Bin P2 | | | | | | | | | | | |
| 201 | Product Bin P3 | | | | | | | | | | | |
| 202 | Product Bin P4 | | | - | | | | | - | | 1 | 1 |
| 203 | Product Bin P5 | | | | | | | | | | - | |
| 204 | Product Bin P6 | | | | | | | | | | - | |
| 205 | Product Bin P7 | | | | | | | | ļ | | ļ | |
| 206 | Product Bin P8 | | | | | | | | ļ | | ļ | |
| 207 | Waste Bin W21 | | | | | | | | | | - | |
| 208 | Waste Bin W22 | | | - | | | | | - | | 1 | - |
| 209 | Waste Bin W23 | | | | | | | | ļ | | ļ | |
| 210 | Waste Bin W24 | | | | | | | | ļ | | ļ | |
| | Covered Raw | | | | | | | | | | | |
| 244 | Gran. Stockpile | | | | | | | | | | | |
| 211 | (BH) | | | | | | | | | | | |

| SN | Source Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Farmaldahuda | Hexane | Maraumi | Nickel | POM | Selenium |
|-----|----------------------------------|-----------|-----------|----------------------|-----------|-----------------|--------------------------|-----------|---------------------|-----------|-----------|-----------|
| SIN | Description | (lbs/hr) | (lbs/hr) | Antimony (lbs/hr) | (lbs/hr) | (lbs/hr) | Formaldehyde (lbs/hr) | (lbs/hr) | Mercury (lbs/hr) | (lbs/hr) | (lbs/hr) | (lbs/hr) |
| | Conveyor No. | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) |
| 212 | 43 | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 213 | 44 | | | | | | | | | | | |
| | IC Circuit | | | | | | | | | | | |
| 214 | Baghouse | | | | | | | | | | | |
| | Kiln Dust | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 215 | 27 | | | | | | | | | | | |
| | Transfer Conveyor No. | | | | | | | | | | | |
| 216 | 28 | | | | | | | | | | | |
| 210 | Train Car | | | | | | | | | | | |
| 300 | Unload | | | | | | | | 1 |] | | |
| | Truck Loading | | | | | | | | | | | |
| 301 | at Pugmill | | | | | | | | | | | |
| | Mineral | | | | | | | | | | | |
| | Unloading at | | | | | | | | | | | |
| 302 | Wet Stockpile | | | | | | | | | | | |
| | Wet Stockpile | | | | | | | | | | | |
| 303 | Fugitives | | | | | | | | | | | |
| | Traincar | | | | | | | | | | | |
| 304 | Unloading (Silica) | | | | | | | | | | | |
| 304 | Plant Vehicle | | | | | | | | | | | |
| 306 | Traffic/Haul Off | | | | | | | | | | | |
| | Temporary | | | | | | | | | | | |
| | Storage | | | | | | | | | | | |
| 307 | Stockpile Drop | | | | | | | | | | | |
| 308 | Raw Stockpile | | | | | | | | | | | |
| | Truck/Railcar | | | | | | | | | | | |
| 310 | Loading | | | | | | | | | | | |
| 044 | Automated | | | | | | | | | | | |
| 311 | Mixing System | | | | | | | | 1 | ļ | | |
| | Truck Loading- Coloring Batch | | | | | | | | | | | |
| 312 | Mixer | | | | | | | | 1 |] | | |
| 012 | Truck Loading- | | | | | | | | 1 | 1 | <u> </u> | |
| | Copper Dust | | | | | | | | 1 |] | | |
| 313 | Loadout | | | | | | | | | | | |
| | Gasoline tank | | | | | | | | | | | |
| 444 | (arch) | | | | | | | | | | | |
| | Gasoline tank | | | | | | | | | | | |
| 445 | (college) | | ĺ | | | | | | | | | |

| SN | Source Description | Methanol | Toluene (lbs/hr) | Antimony (lbs/hr) | Benzene (lbs/hr) | Dichlorobenzene (lbs/hr) | Formaldehyde (lbs/hr) | Hexane (lbs/hr) | Mercury (lbs/hr) | Nickel (lbs/hr) | POM (lbs/hr) | Selenium (lbs/hr) |
|----|-----------------------|-----------|---------------------|----------------------|---------------------|-----------------------------|--------------------------|--------------------|---------------------|--------------------|-----------------|----------------------|
| | Total | (103/111) | (IDS/III) | (IDS/III) | (103/111) | (IDS/III) | (103/111) | (103/111) | (103/111) | (103/111) | (103/111) | (IDS/III) |
| | Pounds/hour = | 0.99 | 1.1E-3 | 1.3E-03 | 5.4E-4 | 3.2E-04 | 2.0E-02 | 1.8E-01 | 2.0E-04 | 1.7E-03 | 1.2E-02 | 1.1E-04 |

| Source Description | Total PM | PM ₁₀ | NO _x | SO ₂ | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|------------------------|--|---|---|-----------------|----------|-------------------|-------------------|-------------|------------------------|--|---|------------------------|------------------------|
| ,,,,, | | | (tons/yr | (tons/y | (tons/y | (ton s/yr) | (ton s/yr) | | | (tons/ | (tons/yr | | (tons/yr) |
| Tertiary | , , | , , | • | | | | | , | | | | , , | , , |
| Baghouse | retired | | | | | | | | | | | | |
| Transfer Tower | retired | | | | | | | | | | | | |
| Primary Crusher | 1.3E+01 | 5.3E+00 | | | | | | | | | | | |
| Crusher Surge Bin | 6.1E-01 | 2.0E-01 | | | | | | | | | | | |
| Conveyor | 8.6E-01 | 2.8E-01 | | | | | | | | | | | |
| Screen | 9.6E+00 | 3.2E+00 | | | | | | | | | | | |
| Primary Crusher | 2.6E+01 | 1.1E+01 | | | | | | | | | | | |
| Screen | 1.2E+01 | 3.9E+00 | | | | | | | | | | | |
| Secondary Crusher | 2.6E+00 | 1.1E+00 | | | | | | | | | | | |
| Crusher | 2.7E-01 | 8.9E-02 | | | | | | | | | | | |
| Station | 1.2E+00 | 4.0E-01 | | | | | | | | | | | |
| Bin | 1.2E+00 | 4.0E-01 | | | | | | | | | | | |
| Bin | 1.2E+00 | 4.0E-01 | | | | | | | | | | | |
| Conveyor | 1.4E+00 | 4.7E-01 | | | | | | | | | | | |
| Conveyor | 1.3E+00 | 4.1E-01 | | | | | | | | | | | |
| Crusher Surge Bin | 1.2E+00 | 4.0E-01 | | | | | | | | | | | |
| Crushing Stock Pile | 5.1E+00 | 5.1E+00 | | | | | | | | | | | |
| | Tertiary Crusher Baghouse Transfer Tower Traylor Primary Crusher Surge Bin No. 20 Conveyor Primary Screen A.C. Primary Crusher Primary Screen Cone Secondary Crusher No. 1 Crusher Transfer Station Load Out Bin No. 3 Conveyor No. 3 Conveyor A.C. Crusher Surge Bin Tertiary Crusher | Description Total PM (tons/yr) Tertiary Crusher Baghouse retired Transfer Tower retired Traylor Primary Crusher 1.3E+01 Traylor Crusher 1.3E+01 No. 20 Conveyor 8.6E-01 Primary Screen 9.6E+00 A.C. Primary Screen 2.6E+01 Primary Screen 2.6E+01 Cone Secondary Crusher 2.6E+01 No. 1 Crusher 2.7E-01 Transfer Station 1.2E+00 Load Out Bin 1.2E+00 No. 3 Conveyor 1.4E+00 No. 3A Conveyor 1.3E+00 A.C. Crusher Surge Bin 1.2E+00 Tertiary Crushing Stock Pile 5.1E+00 | Description Total PM PM₁₀ Tertiary Crusher Baghouse retired Transfer Tower Primary Crusher Surge Bin No. 20 Conveyor Screen 1.3E+01 5.3E+00 Primary Screen 9.6E+01 2.8E-01 Primary Screen 9.6E+00 3.2E+00 A.C. Primary Crusher 2.6E+01 1.1E+01 Primary Screen 1.2E+01 3.9E+00 Cone Secondary Crusher 2.6E+00 1.1E+00 No. 1 Crusher 2.7E-01 8.9E-02 Transfer Station 1.2E+00 4.0E-01 Load Out Bin | Description | Total PM | Description | Description | Description | Description Total PM | Description Total PM PM10 NOx SO2 VOC CO lead chromium manganese lead chromium manganese lead chromium lea | Description Total PM PMio NOx SO2 VOC CO lead chromium manganese cobalt | Description Total PM | Description Total PM |

| | Source | | | | | | | | | | | | | |
|-----|--|-----------|------------------|-----------------|-----------------|---------------|-------------------|-------------------|-----------|-----------|---------------|---------------|-----------|-----------|
| SN | Description | Total PM | PM ₁₀ | NO _x | SO ₂ | voc | CO | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | (tons/yr) | (tons/yr) | (tons/yr) | (tons/y r) | (tons/y r) | (ton s/yr) | (ton s/yr) | (tons/yr) | (tons/yr) | (tons/ yr) | (tons/yr) | (tons/yr) | (tons/yr) |
| | Loadout | 7.45.04 | 0.45.04 | | | | | | | | | | | |
| 19 | Feeders No. 4 | 7.4E-01 | 2.4E-01 | | | | | | | | | | | |
| 20 | Conveyor | 1.4E-01 | 4.7E-02 | | | | | | | | | | | |
| 28 | No. 5 Conveyor | 1.8E-01 | 6.0E-02 | | | | | | | | | | | |
| 29 | No. 6 Conveyor | 1.3E+00 | 4.4E-01 | | | | | | | | | | | |
| 30 | Screen | 5.8E+00 | 1.9E+00 | | | | | | | | | | | |
| 31 | Crusher | 5.3E+00 | 2.1E+00 | | | | | | | | | | | |
| 32 | Screen | 5.8E+00 | 1.9E+00 | | | | | | | | | | | |
| 33 | Crusher | 5.3E+00 | 2.1E+00 | | | | | | | | | | | |
| 50 | Overburden Removal | 6.4E+00 | 6.4E+00 | | | | | | | | | | | |
| 51 | Drilling | 5.6E-01 | 5.6E-01 | | | | | | | | | | | |
| 52 | Blasting | 4.4E-01 | 2.3E-01 | | | | | | | | | | | |
| 53 | Blasting Explosives (ANFO) Quarry | 0 | 0 | 6.0E+ 01 | 7.0E+ 00 | 0 | 2.3 E+ 02 | | | | | | | |
| 54 | Truck Loading | 7.0E-01 | 7.0E-01 | | | | | | | | | | | |
| 55 | Quarry Truck Traffic | 1.7E+02 | 4.8E+01 | | | | | | | | | | | |
| 57 | Emergency Stockpile | 5.5E+00 | 5.5E+00 | | | | | | | | | | | |
| 58 | Emergency Railroad Loadout | 9.8E-01 | 3.2E-01 | | | | | | | | | | | |
| 59 | Conveyor from A.C. Crusher | 9.2E-01 | 3.0E-01 | | | | | | | | | | | |
| 60 | Parallel Crusher | retired | | | | | | | | | | | | |
| 61 | No. 45 Conveyor No. 46 | retired | | | | | | | | | | | | |
| 62 | Conveyor | retired | | | | | | | | | | | | |
| 101 | Dryer Feed | 1.1E+01 | 1.1E+01 | | | | | | | | | | | |

| SN | Source Description | Total PM | PM ₁₀ | NO _x | SO ₂ | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|-----|-----------------------------------|-----------------|------------------|-----------------|-----------------|-------------|-------------------|-------------------|--------------|-----------|-------------|-------------|-----------|-----------|
| | | (tons/yr) | (tons/yr) | (tons/yr | (tons/y | (tons/y | (ton s/yr) | (ton s/yr) | (tons/yr) | (tons/yr) | (tons/ | (tons/yr | (tons/yr) | (tons/yr) |
| | End (BH) | | | | | | | | | | | | | |
| 102 | C&S Line #1 (BH) | 1.1E+01 | 1.1E+01 | | | | | | | | | | | |
| 103 | C&S Line #2 (BH) | 1.1E+01 | 1.1E+01 | | | | | | | | | | | |
| 104 | C&S Line #3 (BH) | 1.2E+01 | 1.2E+01 | | | | | | | | | | | |
| 105 | Filler Screen Baghouse | 4.4E+00 | 4.4E+00 | | | | | | | | | | | |
| 106 | Product & Tripper FIr. (BH) | 4.4E+00 | 4.4E+00 | | | | | | | | | | | |
| 107 | Feeders | 3.4E-01 | 1.1E-01 | | | | | | | | | | | |
| 108 | Dryer No. 1 Baghouse | 2.5E+01 | 2.5E+01 | 1.8E- 01 | 1.8E- 01 | 1.7E+ 00 | 2.5 E+ 01 | 2.8 E- 03 | 4.10E- 01 | 1.5E-01 | 1.3E- 02 | 3.2E- 04 | 2.7E-04 | 1.3E-04 |
| 109 | JB Conveyor | Decommissi oned | | | | | | | | | | | | |
| 110 | No. 7 Filler Tank (BH) | Decommissi oned | | | | | | | | | | | | |
| 111 | No. 1 Kiln Baghouse | 1.4E+01 | 1.4E+01 | 1.4E- 01 | 1.4E- 01 | 1.3E+ 00 | 1.9 E+ 01 | 1.5 E- 03 | 2.30E- 01 | 8.4E-02 | 7.1E- 03 | 1.8E- 04 | 1.5E-04 | 7.5E-05 |
| 112 | No. 2 Kiln Baghouse | 1.4E+01 | 1.4E+01 | 1.4E- 01 | 1.4E- 01 | 1.3E+ 00 | 1.9 E+ 01 | 1.5 E- 03 | 2.30E- 01 | 8.4E-02 | 7.1E- 03 | 1.8E- 04 | 1.5E-04 | 7.5E-05 |
| 113 | No. 3 Kiln Baghouse | 1.4E+01 | 1.4E+01 | 1.4E- 01 | 1.4E- 01 | 1.3E+ 00 | 1.9 E+ 01 | 1.5 E- 03 | 2.3E-01 | 8.4E-02 | 7.1E- 03 | 1.8E- 04 | 1.5E-04 | 7.5E-05 |
| 114 | No. 2 Mixer (Scrubber) | 5.6E+00 | 5.6E+00 | 2.6E- 03 | 2.6E- 03 | 5.8E- 02 | 3.6 E- 01 | 6.2 E- 04 | 9.1E-02 | 3.4E-02 | 2.9E- 03 | 7.1E- 05 | 6.1E-05 | 3.0E-05 |
| 115 | No. 1 Cooler (Scrubber) | 2.1E+01 | 2.1E+01 | 0 | 0 | * | 0 | 2.3 E- 03 | 3.4E-01 | 1.30E-01 | 1.1E- 02 | 2.7E- 04 | 2.3E-04 | 1.1E-04 |
| 116 | Dryer No. 2 Baghouse | 1.4E+01 | 1.4E+01 | 7.7E- | 7.7E- | 7.1E- | 1.1 | 1.5 | 2.3E-01 | 8.4E-02 | 7.1E- | 1.8E- | 1.5E-04 | 7.5E-05 |

| SN | Source Description | Total PM | PM ₁₀ | NO _x | SO ₂ | voc | СО | lead | chromium | manganasa | cobalt | arsenic | cadmium | beryllium |
|-----|------------------------|--------------------------|--------------------|-----------------|-----------------|---------------|------|---------|-----------|------------|---------------|----------|------------|------------|
| SIN | Description | TOTAL FIVE | rivi ₁₀ | | | | (ton | (ton | Chromium | manganese | CODAIL | | Caumum | beryllium |
| | | (tons/yr) | (tons/yr) | (tons/yr | (tons/y | (tons/y r) | s/yr | s/yr | (tons/yr) | (tons/yr) | (tons/ yr) | (tons/yr | (tons/yr) | (tons/yr) |
| | | (toris/yr) | (tons/yi) | 02 | r) 02 | 01 | E+ | , E- | (tons/yr) | (toris/yi) | 03 | 04 | (toris/yr) | (toris/yr) |
| | | | | 02 | 02 | | 01 | 03 | | | | | | |
| | No. 1 Clay | | | | | | | | | | | | | |
| 117 | Tank Baghouse | 8.4E-04 | 4.2E-03 | | | | | | | | | | | |
| | No. 2 Clay | 0.12 0.1 | 1122 00 | | | | | | | | | | | |
| 440 | Tank | 8.4E-04 | 4.2E-03 | | | | | | | | | | | |
| 118 | Baghouse No. 3 Clay | 0.46-04 | 4.26-03 | | | | | | | | | | | |
| | Tank | 0.45.04 | 4.05.00 | | | | | | | | | | | |
| 119 | Baghouse | 8.4E-04 | 4.2E-03 | | | | | | | | | | | |
| 120 | Sodium Silicate Bin | Decommissi oned | | | | | | | | | | | | |
| 120 | Silicate bill | Emissions | | | | | | | | | | | | |
| | | are routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controlled | | | | | | | | | | | | |
| | | by SN-115, | | | | | | | | | | | | |
| | No. 21 | SN-154, | | | | | | | | | | | | |
| 121 | Elevator | SN-155 | | | | | | | | | | | | |
| | | Emissions | | | | | | | | | | | | |
| | | are routed and | | | | | | | | | | | | |
| | | controlled | | | | | | | | | | | | |
| | | by SN-115, | | | | | | | | | | | | |
| | No. 22 | SN-154, | | | | | | | | | | | | |
| 122 | Elevator | SN-155 | | | | | | | | | | | | |
| | | Emissions | | | | | | | | | | | | |
| | | are routed | | | | | | | | | | | | |
| | | and | | | | | | | | | | | | |
| | | controlled by SN-115, | | | | | | | | | | | | |
| | | SN-154, | | | | | | | | | | | | |
| 123 | No. 23 Elevator | SN-154, SN-155 | | | | | | | | | | | | |
| | Coloring | | | | | | | | | | | | | |
| 124 | Feed End | 5.7E+00 | 5.7E+00 | | | | | | | | | | | |

| SN | Source Description | Total PM | PM ₁₀ | NO _x | SO ₂ | voc | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
|----------|------------------------------------|--|------------------|-----------------|-----------------|-------------|--------------|--------------|-------------|------------|---------------|-------------|-------------|-------------|
| <u> </u> | - Decemparent | (tons/yr) | (tons/yr) | (tons/yr | (tons/y | (tons/y | (ton s/yr | (ton s/yr | (tons/yr) | (tons/yr) | (tons/ yr) | (tons/yr | (tons/yr) | (tons/yr) |
| | Baghouse | (tollo/yl) | (tollo/yl) | | | | | | (tono, y.) | (10110/31) | J ·/ | | (tono, y.) | (tono, y.) |
| | 249.10400 | | | | | | 3.6 | 6.2 | | | | | | |
| 128 | No. 3 Mixer (Scrubber) | 5.6E+00 | 5.6E+00 | 2.6E- 03 | 2.6E- 03 | 5.8E- 02 | E- 01 | E- 04 | 9.1E-02 | 3.4E-02 | 2.9E- 03 | 7.1E- 05 | 6.1E-05 | 3.0E-05 |
| | | | | 2.6E- | 2.6E- | 5.8E- | 3.6 E- | 6.2 E- | | | 2.9E- | 7.1E- | | |
| 129 | No. 1 Mixer (Scrubber) | 5.6E+00 | 5.6E+00 | 03 | 03 | 02 | 01 | 04 | 9.1E-02 | 3.4E-02 | 03 | 05 | 6.1E-05 | 3.0E-05 |
| 130 | Sodium Silicate Plant Boiler | Decommissi oned | | | | | | | | | | | | |
| 131 | Screen No. | Emissions are routed and controlled by SN-115, SN-154, SN-155 | | | | | | | | | | | | |
| 132 | Screen No. 26 | Emissions are routed and controlled by SN-115, SN-154, SN-155 | | | | | | | | | | | | |
| 133 | Screen No. 29 | Emissions are routed and controlled by SN-115, SN-154, SN-155 Emissions | | | | | | | | | | | | |
| 134 | Screen No. 28 | are routed and controlled | | | | | | | | | | | | |

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

| | Source | | | | | | | | | | | | | |
|-----|----------------------|-----------|------------------|-----------------|-----------------|---------|-------------------|-------------------|-----------|-----------|---------------|----------|-----------|-----------|
| SN | Description | Total PM | PM ₁₀ | NO _x | SO ₂ | VOC | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | (tons/yr) | (tons/yr) | (tons/yr) | (tons/y | (tons/y | (ton s/yr) | (ton s/yr) | (tons/yr) | (tons/yr) | (tons/ yr) | (tons/yr | (tons/yr) | (tons/yr) |
| | Transfer | | | - | | | | | | | | | | |
| 160 | Conveyor No. 22 | 1.2E-01 | 3.9E-02 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | | | |
| 161 | Conveyor No. 23 | 2.5E-01 | 8.1E-02 | | | | | | | | | | | |
| 101 | Transfer | 2.02 01 | 0112 02 | | | | | | | | | | | |
| 162 | Conveyor No. 24 | 2.1E-01 | 7.1E-02 | | | | | | | | | | | |
| | Transfer Conveyor | | | | | | | | | | | | | |
| 163 | No. 25 | 2.7E-01 | 8.8E-02 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | | | |
| 164 | Conveyor No. 33 | 2.0E-01 | 6.5E-02 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | | | |
| 165 | Conveyor No. 34 | 2.1E-01 | 7.1E-02 | | | | | | | | | | | |
| | Transfer | - | | | | | | | | | | | | |
| 166 | Conveyor No. 35 | 2.4E-01 | 7.9E-02 | | | | | | | | | | | |
| | Transfer | - | | | | | | | | | | | | |
| 167 | Conveyor No. 36 | 1.5E-01 | 5.0E-02 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | | | |
| 168 | Conveyor No. 37 | 2.1E-01 | 6.7E-02 | | | | | | | | | | | |
| 100 | Transfer | | 0 0_ | | | | | | | | | | | |
| 169 | Conveyor No. 39 | 2.7E-01 | 8.8E-02 | | | | | | | | | | | |
| 103 | Transfer | 2.7 2 01 | 0.01 02 | | | | | | | | | | | |
| 170 | Conveyor No. 40 | 2.7E-01 | 8.9E-02 | | | | | | | | | | | |
| 170 | Transfer | 2.1 L-01 | 0.36-02 | | | | | | | | 1 | | | |
| 474 | Conveyor | 4.8E-01 | 1.6E-01 | | | | | | | | | | | |
| 171 | No. 41 Transfer | 4.0⊑-01 | 1.0=-01 | | | | | | | | | | | |
| | Conveyor | 4.05.04 | 4 45 04 | | | | | | | | | | | |
| 172 | No. 42 Conveyor | 4.3E-01 | 1.4E-01 | | | | | | | | | | | |
| 173 | No. 15 | 1.0E-01 | 3.3E-02 | | | | | | | | | | | |
| 174 | Conveyor | 1.0E-01 | 3.3E-02 | | | | | | | | | | | |

| | Source | | | | | | | | | | | | | |
|-----|---|-----------|------------------|----------|-----------------|---------|-------------------|-------------------|-----------|-----------|---------------|----------|-----------|-----------|
| SN | Description | Total PM | PM ₁₀ | NO_x | SO ₂ | VOC | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | (tons/yr) | (tons/yr) | (tons/yr | (tons/y | (tons/y | (ton s/yr) | (ton s/yr) | (tons/yr) | (tons/yr) | (tons/ yr) | (tons/yr | (tons/yr) | (tons/yr) |
| | No. 16 | | | | | | | | | | | | | |
| 175 | Conveyor No. 31 | 1.2E-01 | 4.0E-02 | | | | | | | | | | | |
| 183 | Pugmill | 1.5E-01 | 5.0E-02 | | | | | | | | | | | |
| 184 | Pugmill | 1.5E-01 | 5.0E-02 | | | | | | | | | | | |
| 186 | Bucket Elevator No. 18 | 8.6E-02 | 2.8E-02 | | | | | | | | | | | |
| 187 | Bucket Elevator No. 19 | 9.2E-02 | 3.0E-02 | | | | | | | | | | | |
| 188 | Bucket Elevator No. 20 | 8.6E-02 | 2.8E-02 | | | | | | | | | | | |
| 100 | Bucket Elevator No. | 0.02 02 | 2.02 02 | | | | | | | | | | | |
| 189 | 24 | 1.1E-01 | 3.8E-02 | | | | | | | | | | | |
| 190 | Bucket Elevator No. 25 | 4.9E-02 | 1.6E-02 | | | | | | | | | | | |
| 190 | Finished Granule Storage/Loa ding | 2.5E-01 | 8.1E-02 | | | | | | | | | | | |
| 195 | Waste Granule Storage/Loa ding | 1.2E-01 | 4.0E-02 | | | | | | | | | | | |
| 199 | Product Bin P1 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 200 | Product Bin P2 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 201 | Product Bin P3 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 202 | Product Bin P4 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 203 | Product Bin P5 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 204 | Product Bin P6 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 205 | Product Bin P7 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |

| | Source | | | | | | | | | | | | | |
|-----|---|-----------|------------------|-----------------|-----------------|---------------|-------------------|-------------------|-----------|-----------|---------------|----------|-----------|-----------|
| SN | Description | Total PM | PM ₁₀ | NO _x | SO ₂ | VOC | СО | lead | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | (tons/yr) | (tons/yr) | (tons/yr) | (tons/y r) | (tons/y r) | (ton s/yr) | (ton s/yr) | (tons/yr) | (tons/yr) | (tons/ yr) | (tons/yr | (tons/yr) | (tons/yr) |
| 206 | Product Bin P8 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 207 | Waste Bin W21 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 208 | Waste Bin W22 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 209 | Waste Bin W23 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 210 | Waste Bin W24 | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 211 | Covered Raw Gran. Stockpile (BH) | 2.7E-02 | 1.4E-01 | | | | | | | | | | | |
| 212 | Conveyor No. 43 | 1.5E-01 | 5.0E-02 | | | | | | | | | | | |
| 213 | Conveyor No. 44 | 1.5E-01 | 5.0E-02 | | | | | | | | | | | |
| 214 | IC Circuit Baghouse | 1.5E-02 | 2.5E-02 | | | | | | | | | | | |
| 215 | Kiln Dust Conveyor No. 27 | 1.7E-02 | 5.6E-03 | | | | | | | | | | | |
| 216 | Transfer Conveyor No. 28 | 2.8E-02 | 9.1E-03 | | | | | | | | | | | |
| 300 | Train Car Unload | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 301 | Truck Loading at Pugmill | 6.1E-02 | 2.0E-02 | | | | | | | | | | | |
| 302 | Mineral Unloading at Wet Stockpile | 1.5E-01 | 5.0E-02 | | | | | | | | | | | |
| 303 | Wet Stockpile Fugitives | 8.6E-01 | 8.6E-01 | | | | | | | | | | | |
| 306 | Plant Vehicle Traffic/Haul Off | 5.7E+01 | 1.2E+01 | | | | | | | | | | | |

Permit #: 0039-AOP-R12

| ON. | Source | Tatal DM | DM | NO | 00 | V00 | 00 | 1 | | | 114 | | | h |
|-----|----------------------|-----------|------------------|-----------------|-----------------|---------|------------|--------------|-----------|-----------|--------|----------|-----------|-----------|
| SN | Description | Total PM | PM ₁₀ | NO _x | SO ₂ | VOC | CO (ton | lead (ton | chromium | manganese | cobalt | arsenic | cadmium | beryllium |
| | | | | (tons/yr | (tons/y | (tons/y | s/yr | s/yr | | | (tons/ | (tons/yr | | |
| | | (tons/yr) | (tons/yr) |) | r) | r) |) |) | (tons/yr) | (tons/yr) | yr) |) | (tons/yr) | (tons/yr) |
| | Temporary | | | | | | | | | | | | | |
| | Storage | | | | | | | | | | | | | |
| 307 | Stockpile Drop | 3.4E-01 | 3.4E-01 | | | | | | | | | | | |
| 308 | Raw Stockpile | 1.7E+00 | 1.7E+00 | | | | | | | | | | | |
| 300 | Truck/Railca | 1.7 = 100 | 1.7 = 100 | | | | | | | | | | | |
| 310 | r Loading | 2.5E-01 | 8.1E-02 | | | | | | | | | | | |
| | Automated | | | | | | | | | | | | | |
| 244 | Mixing | 5.6E+00 | 5.6E+00 | | | | | | | | | | | |
| 311 | System Truck | 3.0⊑+00 | 3.6⊑+00 | | | | | | | | | | | |
| | Loading- | | | | | | | | | | | | | |
| | Copper Dust | | | | | | | | | | | | | |
| 313 | Loadout | 6.1E-04 | 2.0E-04 | | | | | | | | | | | |
| 444 | Gasoline tank (arch) | | | | | 0.01 | | | | | | | | |
| | Gasoline | | | | | | | | | | | | | |
| | tank | | | | | | | | | | | | | |
| 445 | (college) | | | | | 0.04 | | | | | | | | |
| | Total | | | | | | 33 | 0.0 | | | | | | |
| | Tons/year = | 580.4 | 346.2 | 60.3 | 7.7 | 44.53 | 0.4 | 18 | 2.603 | 0.978 | 0.083 | 0.002 | 0.002 | 0.001 |

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

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

| CN | Source | Mathanal | Taluana | Austinopun | Danmana | Diablasahassasa | Farms aldah uda | Hawana | Manaumi | Nickel | РОМ | Selenium |
|-----|-----------------------------------|---|---|--------------------|----------------------|------------------------------|---|---|----------------------|-------------|-----------|-----------|
| SN | Description | Methanol (tons/yr) | Toluene (tons/yr) | Antimony (tons/yr) | Benzene (tons/yr) | Dichlorobenzene (tons/yr) | Formaldehyde (tons/yr) | Hexane (tons/yr) | Mercury (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) |
| 31 | Crusher | (, , , , , , , , , , , , , , , , , , , | (************************************** | (, , | (= == 7 / | (, | (, , , , , , , , , , , , , , , , , , , | (************************************** | (, , | (2 2 2 7 7 | (12.27) | (12.22) |
| 32 | Screen | | | | | | | | | | | |
| 33 | Crusher | | | | | | | | | | | |
| 50 | Overburden Removal | | | | | | | | | | | |
| 51 | Drilling | | | | | | | | | | | |
| 52 | Blasting | | | | | | | | | | | |
| 53 | Blasting Explosives (ANFO) | | | | | | | | | | | |
| 54 | Quarry Truck Loading | | | | | | | | | | | |
| 55 | Quarry Truck Traffic | | | | | | | | | | | |
| 57 | Emergency Stockpile | | | | | | | | | | | |
| 58 | Emergency Railroad Loadout | | | | | | | | | | | |
| 59 | Conveyor from A.C. Crusher | | | | | | | | | | | |
| 60 | Parallel Crusher | | | | | | | | | | | |
| 61 | No. 45 Conveyor | | | | | | | | | | | |
| 62 | No. 46 Conveyor | | | | | | | | | | | |
| 101 | Dryer Feed End (BH) | | | | | | | | | | | |
| 102 | C&S Line #1 (BH) | | | | | | | | | | | |
| 103 | C&S Line #2 (BH) | | | | | | | | | | | |
| 104 | C&S Line #3 (BH) | | | | | | | | | | | |
| 105 | Filler Screen Baghouse | | | | | | | | | | | |
| 106 | Product & Tripper FIr. (BH) | | | | | | | | | | | |
| 107 | Feeders | | | | | | | | | | | |
| 108 | Dryer No. 1 | | 1.0E- | 9.5E-05 | 6.3E-04 | 3.6E-04 | 2.3E-02 | 5.4E- | 1.4E- | 1.1E- | 1.3E- | 7.1E-05 |

| SN | Source Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Mercury | Nickel | РОМ | Selenium |
|-----|-----------------------------|-----------|-----------|-----------|-----------|-----------------|--------------|-----------|-----------|-----------|-----------|-----------|
| | 2000 | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) |
| | Baghouse | , , , | 03 | ` , | . ,, | , , | , , , | 01 | 04 | 03 | 02 | ` , |
| 109 | JB Conveyor | | | | | | | | | | | |
| | No. 7 Filler Tank | | | | | | | | | | | |
| 110 | (BH) | | | | | | | | | | | |
| | No. 1 Kiln | | 7.9E- | | | | | 4.2E- | 7.6E- | 6.2E- | 1.0E- | |
| 111 | Baghouse | | 04 | 5.3E-05 | 4.9E-04 | 2.8E-04 | 1.7E-02 | 01 | 05 | 04 | 02 | 3.9E-05 |
| | No. 2 Kiln | | 7.9E- | | | | | 4.2E- | 7.6E- | 6.2E- | 1.0E- | |
| 112 | Baghouse | | 04 | 5.3E-05 | 4.9E-04 | 2.8E-04 | 1.7E-02 | 01 | 05 | 04 | 02 | 3.9E-05 |
| | No. 3 Kiln | | 7.9E- | | | | | 4.2E- | 7.6E- | 6.3E- | 1.0E- | |
| 113 | Baghouse | | 04 | 5.3E-05 | 4.9E-04 | 2.8E-04 | 1.7E-02 | 01 | 05 | 04 | 02 | 3.9E-05 |
| | No. 2 Mixer | | 1.5E- | | | | | 7.7E- | 3.1E- | 2.5E- | 1.8E- | |
| 114 | (Scrubber) | | 05 | 2.1E-05 | 9.0E-06 | 5.2E-06 | 3.2E-04 | 03 | 05 | 04 | 04 | 1.6E-05 |
| | No. 1 Cooler | | | | | | | | 1.2E- | 9.3E- | | |
| 115 | (Scrubber) | * | 0.0 | 8.0E-05 | | | | | 04 | 04 | | 5.9E-05 |
| | Dryer No. 2 | | 4.4E- | | | | | 2.3E- | 7.6E- | 6.2E- | 5.5E- | |
| 116 | Baghouse | | 04 | 5.3E-05 | 2.7E-04 | 1.5E-04 | 9.7E-03 | 01 | 05 | 04 | 03 | 3.9E-05 |
| 117 | No. 1 Clay Tank Baghouse | | | | | | | | | | | |
| | No. 2 Clay Tank | | | | | | | | | | | |
| 118 | Baghouse | | | | | | | | | | | |
| 110 | No. 3 Clay Tank | | | | | | | | | | | |
| 119 | Baghouse Sodium Silicate | | | | | | | | | | | |
| 120 | Bin | | | | | | | | | | | |
| 121 | No. 21 Elevator | | | | | | | | | | | |
| 122 | No. 22 Elevator | | | | | | | | | | | |
| 123 | No. 23 Elevator | | | | | | | | | | | |
| | Coloring Feed | | | | | | | | | | | |
| 124 | End Baghouse | | 4.55 | | | | | 7 7 - | | | | |
| | No. 3 Mixer | | 1.5E- | 0.1E 05 | 0.05.00 | 5.05.00 | 0.05.04 | 7.7E- | | | | |
| 128 | (Scrubber) | | 05 | 2.1E-05 | 9.0E-06 | 5.2E-06 | 3.2E-04 | 03 | 3.1E-05 | 2.5E-04 | 1.8E-04 | 1.6E-05 |
| | No. 1 Mixer | | 1.5E- | 0.15.05 | 0.05.00 | 5 OF OC | 0.05.04 | 7.7E- | | | | |
| 129 | (Scrubber) Sodium Silicate | | 05 | 2.1E-05 | 9.0E-06 | 5.2E-06 | 3.2E-04 | 03 | 3.1E-05 | 2.5E-04 | 1.8E-04 | 1.6E-05 |
| 130 | Plant Boiler | | | | | | | | | | | |
| 131 | Screen No. 25 | | | | | | | | | | | |
| 132 | Screen No. 26 | | | | | | | | | | | |
| 133 | Screen No. 29 | | | | | | | | | | | |

| | Source | | | | _ | | | | | | | |
|-----|---------------------------------|--------------------|----------------------|--------------------|----------------------|---------------------------|------------------------|---------------------|----------------------|---------------------|------------------|-----------------------|
| SN | Description | Methanol (tons/yr) | Toluene (tons/yr) | Antimony (tons/yr) | Benzene (tons/yr) | Dichlorobenzene (tons/yr) | Formaldehyde (tons/yr) | Hexane (tons/yr) | Mercury (tons/yr) | Nickel (tons/yr) | POM (tons/yr) | Selenium (tons/yr) |
| 134 | Screen No. 28 | (toris/yi) | (toris/yi) | (tons/yr) | (toris/yi) | (toris/yi) | (toris/yi) | (toris/yi) | (toris/yi) | (toris/yi) | (toris/yi) | (toris/yi) |
| 135 | Screen No. 27 | | | | | | | | | | | |
| 100 | IC Circuit - Silo | | | | | | | | | | | |
| 150 | No. 1 (BH) | | | | | | | | | | | |
| 151 | IC Circuit - Śilo No. 2 (BH) | | | | | | | | | | | |
| 152 | IC Circuit - Śilo No. 3 (BH) | | | | | | | | | | | |
| 153 | Waste & Raw Granule(BH) | | | | | | | | | | | |
| 154 | No. 2 Cooler (Scrubber) | * | 0.0 | 8.0E-05 | | | | | 1.2E- 04 | 9.3E- 04 | | 5.9E-05 |
| | No. 3 Cooler | | | | | | | | 1.2E- | 9.3E- | | |
| 155 | (Scrubber) | * | 0.0 | 8.0E-05 | | | | | 04 | 04 | | 5.9E-05 |
| 156 | Conveyor No. 1 | | | | | | | | | | | |
| 157 | Conveyor No. 2 | | | | | | | | | | | |
| 158 | Transfer Conveyor No. 20 | | | | | | | | | | | |
| 159 | Transfer Conveyor No. 21 | | | | | | | | | | | |
| 160 | Transfer Conveyor No. 22 | | | | | | | | | | | |
| 161 | Transfer Conveyor No. 23 | | | | | | | | | | | |
| 162 | Transfer Conveyor No. 24 | | | | | | | | | | | |
| 163 | Transfer Conveyor No. 25 | | | | | | | | | | | |
| 164 | Transfer Conveyor No. 33 | | | | | | | | | | | |
| 165 | Transfer Conveyor No. 34 | | | | | | | | | | | |
| 166 | Transfer Conveyor No. | | | | | | | | | | | |

| | Source | | | | | | | | | | | |
|-----|--------------------|-----------|-----------|-----------|-----------|-----------------|--------------|-----------|-----------|-----------|-----------|-----------|
| SN | Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Mercury | Nickel | POM | Selenium |
| | | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) |
| | 35 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | |
| 167 | Conveyor No. 36 | | | | | | | | | | | |
| 107 | Transfer | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 168 | 37 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 169 | 39 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 170 | 40 | | | | | | | | | | | |
| | Transfer | | | | | | | | | | | |
| 474 | Conveyor No. | | | | | | | | | | | |
| 171 | 41 Transfer | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 172 | 42 | | | | | | | | | | | |
| 172 | Conveyor No. | | | | | | | | | | | |
| 173 | 15 | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 174 | 16 | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 175 | 31 | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 470 | 31A (Silicate | | | | | | | | | | | |
| 176 | Plant) | | | | | | | | | | | |
| 183 | Pugmill | | | | | | | | | | | |
| 184 | Pugmill | | | | | | | | | | | |
| 104 | Bucket Elevator | | | | | | | | | | | |
| 186 | No. 18 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 187 | No. 19 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 188 | No. 20 | | | | | | | | | | | |
| | Bucket Elevator | | | | | | | | | | | |
| 189 | No. 24 | ļ | | | ļ | | | | | | ļ | |
| 465 | Bucket Elevator | | | | | | | | | | | |
| 190 | No. 25 | | | | | | | | | | | |
| 101 | Bucket Elv. No. | | | | | | | | | | | |
| 191 | 27 (Silicate Plt.) | - | | | - | | | | | | - | |
| 194 | Finished | | | | | | | | | | | |

| ON | Source | Madhanal | Talasas | A (! | | District the second | Farmal dalamida | | | Nicologi | DOM | 0-1 |
|------|--------------------------------|--------------------|----------------------|-----------------------|----------------------|---------------------------|------------------------|---------------------|----------------------|---------------------|------------------|-----------------------|
| SN | Description | Methanol (tons/yr) | Toluene (tons/yr) | Antimony (tons/yr) | Benzene (tons/yr) | Dichlorobenzene (tons/yr) | Formaldehyde (tons/yr) | Hexane (tons/yr) | Mercury (tons/yr) | Nickel (tons/yr) | POM (tons/yr) | Selenium (tons/yr) |
| | Granule | (toris/yi) | (toris/yi) | (toris/yr) | (toris/yi) | (toris/yr) | (toris/yr) | (toris/yr) | (toris/yi) | (toris/yi) | (toris/yi) | (toris/yr) |
| | Storage/Loading | | | | | | | | | | | |
| 405 | Waste Granule | | | | | | | | | | | |
| 195 | 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 | | | | | | | | | | | |
| | Covered Raw Gran. Stockpile | | | | | | | | | | | |
| 211 | (BH) | | | | | | | | | | | |
| 0.10 | Conveyor No. | | | | | | | | | | | |
| 212 | 43 Conveyor No. | | | | | | | | | | | |
| 213 | 44 IC Circuit | | | | | | | | | | | |
| 04.4 | IC Circuit | | | | | | | | | | | |
| 214 | Baghouse Kiln Dust | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 215 | 27 Transfer | | | | | | | | | | | |
| | Conveyor No. | | | | | | | | | | | |
| 216 | 28 | | | | | | | | | | | |
| 300 | Train Car Unload | | | | | | | | | | | |
| 300 | Truck Loading | | | | | | | | | | | |
| 301 | at Pugmill | | | | | | | | | | | |
| | Mineral Unloading at | | | | | | | | | | | |
| 302 | Wet Stockpile | | | | | | | | | | | |

Permit #: 0039-AOP-R12

| SN | Source Description | Methanol | Toluene | Antimony | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Mercury | Nickel | РОМ | Selenium |
|-----|---|-----------|-----------|------------|-----------|-----------------|--------------|------------|------------|------------|------------|-----------|
| SIN | Description | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) | (tons/yr) |
| | Wet Stockpile | (tons/yi) | (tons/yr) | (torioryi) | (tonory) | (toriory) | (torioryi) | (torioryi) | (torioryi) | (torioryi) | (torioryi) | (toriory) |
| 303 | Fugitives | | | | | | | | | | | |
| 304 | Traincar Unloading (Silica) | | | | | | | | | | | |
| 304 | Plant Vehicle | | | | | | | | | | | |
| 306 | Traffic/Haul Off | | | | | | | | | | | |
| 307 | Temporary Storage Stockpile Drop | | | | | | | | | | | |
| 308 | Raw Stockpile | | | | | | | | | | | |
| 310 | Truck/Railcar Loading | | | | | | | | | | | |
| 311 | Automated Mixing System | | | | | | | | | | | |
| 312 | Truck Loading- Coloring Batch Mixer | | | | | | | | | | | |
| 313 | Truck Loading- Copper Dust Loadout | | | | | | | | | | | |
| 444 | Gasoline tank (arch) | | | | | | | | | | | |
| 445 | Gasoline tank (college) | | | | | | | | | | | |
| | Total | 0.500 | 0.0000 | 0.0000 | 0.0004 | 0.0044 | 0.0047 | 0.0504 | 0.0000 | 0.0074 | 0.0400 | 0.0005 |
| | Tons/year = | 9.500 | 0.0039 | 0.0006 | 0.0024 | 0.0014 | 0.0847 | 2.0531 | 0.0009 | 0.0071 | 0.0490 | 0.0005 |

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

AFIN: 60-00003

Appendix B- 40 C.F.R. §279.11

Permit #: 0039-AOP-R12

AFIN: 60-00003

§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.

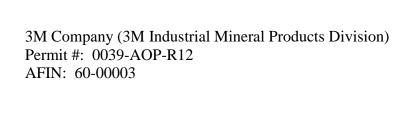
TABLE 1— USED OIL NOT EXCEEDING ANY ALLOWABLE LEVEL SHOWN BELOW IS NOT SUBJECT TO THIS PART WHEN BURNED FOR ENERGY RECOVERY¹

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

¹The 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)).

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

²Used 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.



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

Permit #: 0039-AOP-R12

AFIN: 60-00003

§63.11110 What is the purpose of this subpart?

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

≜ Back to Top

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

- (a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.
- (b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in §63.11116.
- (c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in §63.11117.
- (d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in §63.11118.
- (e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in §63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in §63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.
- (f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).
- (g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.
- (h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.
- (i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

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



Back to Top

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

- (a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in §63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.
- (b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in §63.11111 at the time you commenced operation.
 - (c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.
 - (d) An affected source is an existing affected source if it is not new or reconstructed.



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

- (a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.
- (1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.
- (2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

- (c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in §63.11111(c) or §63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.
- (d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.
- (1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.
- (2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.
- (e) The initial compliance demonstration test required under §63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.
- (1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.
- (2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.
- (i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.
- (ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.
- (f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.
 - (1) If your GDF is an existing facility, you must comply by January 24, 2014.
- (2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.
- (i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.
 - (ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

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

Back to Top

Permit #: 0039-AOP-R12

AFIN: 60-00003

Emission Limitations and Management Practices

♣ Back to Top

§63.11115 What are my general duties to minimize emissions?

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

- (a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- (b) You must keep applicable records and submit reports as specified in §63.11125(d) and §63.11126(b).

[76 FR 4182, Jan. 24, 2011]

♣ Back to Top

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

- (a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
 - (1) Minimize gasoline spills;
 - (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
- (b) You are not required to submit notifications or reports as specified in §63.11125, §63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.
- (c) You must comply with the requirements of this subpart by the applicable dates specified in §63.11113.
- (d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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



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

- (a) You must comply with the requirements in section §63.11116(a).
- (b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in §63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.
- (1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.
- (2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.
- (3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.
- (c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in §63.11116.
- (d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.
 - (e) You must submit the applicable notifications as required under §63.11124(a).
- (f) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

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



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

- (a) You must comply with the requirements in §§63.11116(a) and 63.11117(b).
- (b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

- (2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.
- (i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.
 - (A) Achieves emissions reduction of at least 90 percent.
 - (B) Operates using management practices at least as stringent as those in Table 1 to this subpart.
- (ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.
- (c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in §63.11117.
- (1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.
- (2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.
 - (3) Gasoline storage tanks equipped with floating roofs, or the equivalent.
- (d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.
 - (e) You must comply with the applicable testing requirements contained in §63.11120.
 - (f) You must submit the applicable notifications as required under §63.11124.
 - (g) You must keep records and submit reports as specified in §§63.11125 and 63.11126.
- (h) You must comply with the requirements of this subpart by the applicable dates contained in §63.11113.

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

♣ Back to Top

Testing and Monitoring Requirements

♣ Back to Top

§63.11120 What testing and monitoring requirements must I meet?

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

- (1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.
- (i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14).
- (ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).
- (2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.
- (i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14).
- (ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).
- (iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, see §63.14).
- (b) Each owner or operator choosing, under the provisions of §63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph §63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.
- (1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see §63.14).
- (2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.
 - (3) You must comply with the testing requirements specified in paragraph (a) of this section.

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

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

♣ Back to Top

Notifications, Records, and Reports

≜ Back to Top

§63.11124 What notifications must I submit and when?

- (a) Each owner or operator subject to the control requirements in §63.11117 must comply with paragraphs (a)(1) through (3) of this section.
- (1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in §63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in §63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in §63.13.
 - (i) The name and address of the owner and the operator.
 - (ii) The address (i.e., physical location) of the GDF.
- (iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11117 that apply to you.
- (2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, within 60 days of the applicable compliance date specified in §63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.
- (3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in §63.11117(b), you are not required to

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

- (b) Each owner or operator subject to the control requirements in §63.11118 must comply with paragraphs (b)(1) through (5) of this section.
- (1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in §63.11118. If your affected source is subject to the control requirements in §63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in §63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in §63.13.
 - (i) The name and address of the owner and the operator.
 - (ii) The address (i.e., physical location) of the GDF.
- (iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of §63.11118 that apply to you.
- (2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in §63.13, in accordance with the schedule specified in §63.9(h). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.
- (3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.
- (i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.
 - (A) Achieves emissions reduction of at least 90 percent.
 - (B) Operates using management practices at least as stringent as those in Table 1 to this subpart.
- (ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.
- (4) You must submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11120(a) and (b).
 - (5) You must submit additional notifications specified in §63.9, as applicable.

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

Permit #: 0039-AOP-R12

AFIN: 60-00003



§63.11125 What are my recordkeeping requirements?

- (a) Each owner or operator subject to the management practices in §63.11118 must keep records of all tests performed under §63.11120(a) and (b).
- (b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.
- (c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in §63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.
 - (1) The owner or operator must keep all vapor tightness testing records with the cargo tank.
- (2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.
- (i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.
- (ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (e.g., via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.
- (d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.
- (1) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
- (2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

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



§63.11126 What are my reporting requirements?

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

≜ Back to Top

Other Requirements and Information

≜ Back to Top

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

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

≜ Back to Top

§63.11131 Who implements and enforces this subpart?

- (a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or tribal agency.
- (c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.
 - (1) Approval of alternatives to the requirements in §§63.11116 through 63.11118 and 63.11120.
- (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.
- (3) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

♣ Back to Top

§63.11132 What definitions apply to this subpart?

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

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

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

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

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

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

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

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

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

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

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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



Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More¹

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

| $Pf = 2e^{-500.887/v}$ |
|--|
| Where: |
| Pf = Minimum allowable final pressure, inches of water. |
| v = Total ullage affected by the test, gallons. |
| e = Dimensionless constant equal to approximately 2.718. |
| 2 = The initial pressure, inches water. |
| Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in §63.11132, and comply with the requirements of item 1 in this Table. |

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

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

♣ Back to Top

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

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

Permit #: 0039-AOP-R12

AFIN: 60-00003

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

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

≜ Back to Top

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

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

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

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

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

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

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

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

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

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

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

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

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

AFIN: 60-00003

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

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

CERTIFICATE OF SERVICE

| I, Pamela Owen, hereby certify that a copy of | his permit has been mailed by first class mail to |
|---|---|
| | Division), P.O. Box 165860, Little Rock, AR, |
| 72216, on this day of | <u>Comber</u> , 2015. |
| | |
| | Panela Owen |
| | Pamela Owen, ASIII, Air Division |