

**PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PROGRAM**

33 N. Stone Avenue, Suite 700 • Tucson, Arizona 85701 • Phone: (520) 724-7400

AIR QUALITY PERMIT

(As required by Title 17.11, Article II, Pima County Code)

ISSUED TO

**SASOL CHEMICALS (USA), LLC.
7800 S. KOLB ROAD
TUCSON, AZ 85756**

This air quality permit does not relieve applicant of responsibility for meeting all air pollution regulations

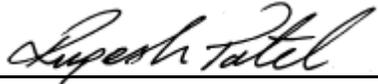
THIS PERMIT ISSUED SUBJECT TO THE **Specific Conditions and Attachment 1**

PERMIT NUMBER **1683**

PERMIT CLASS **II**

ISSUED: **May 3, 2021**

EXPIRES: **May 2, 2026**



SIGNATURE

Rupesh Patel, Air Program Manager, PDEO

TITLE

SOURCE SUMMARY

This air quality permit is a renewal of a 5-year permit. It is the third five-year permit issued to Sasol Chemicals (USA), LLC, (Sasol) the Permittee. This facility is a **Class II; True Minor Stationary Source** for all pollutants. This condition is only true when the facility is operating and maintaining the air pollution control equipment as part of its operational design.

Sasol is a facility that produces high purity alumina products for the use in synthetic crystal growth, ceramics for semi-conductor processing, bio-ceramics, ceramics for translucent lighting components, fluorescent lamp coatings, phosphors, luminescent materials and other specialty applications. Sasol uses milling techniques and thermal treatment (calcination) to achieve desired product properties.

The following emission rates are for reference purposes only and are not intended to be enforced by direct measurement unless otherwise noted in the Specific Conditions of this permit.

Pollutant	Potential To Emit (Tons per Year)
Nitrogen Oxides (NO _x)	14.96
Carbon Monoxide (CO)	12.58
Volatile Organic Compounds (VOC)	0.90
Particulate Matter (PM)	14.77
Sulfur Oxides (SO _x)	2.34
Hazardous Air Pollutants (HAPs – combined)	0.06

Explanation of Permit Structure

The conditions of this permit are divided into the following four sections.

- Section 1: Pima County Code (Facility Wide Standards)
- Section 2: New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries
- Section 3: Standards of Performance for Unclassified Sources
- Section 4: Standards of Performance for Fossil Fuel Fired Industrial and Commercial Equipment

Section 1 of the permit contains Pima County Code (PCC) provisions that apply to all sources of air contaminants operating in Pima County and are Locally Enforceable Conditions unless noted otherwise. Section 2 covers affected sources at the facility subject to the provisions of 40 CFR Part 60 Subpart UUU - Standards of Performance for Calciners and Dryers in Mineral Industries. Section 3 and 4 group other emission sources into emission limitation categories in PCC and are Locally Enforceable Conditions unless noted otherwise.

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Section 1

General Conditions

1. Statutory Authority

The General and Specific Conditions contained in this air quality permit apply to the operations, equipment, and sources provided in the permit application and shall not relieve the Permittee or its subcontractors from compliance with all local, county, state, and federal laws, statutes, and codes or from obtaining permits for other operations or activities when required. [PCC 17.11.010.D & PCC 17.13.010]

2. Permitted Facility Sources

The following general provisions apply to facility-wide operations and to all sources of air contaminants operating at the facility: general control standards, materials handling standards, odor limiting standard, opacity standard, visibility limiting standard. [PCC 17.16.010.A, PCC 17.16.020 thru 120, PCC 17.16.400.A, & PCC 17.16.430.F]

[Locally Enforceable Conditions]

Emission Limits and Standards

3. General Control Standards

- a. The Permittee shall not cause or permit the planning, construction, installation, erection, modification, use or operation of an emission source which will cause or contribute to a violation of a performance standard in Title 17 of the Pima County Code. [PCC 17.11.020 & PCC 17.16.020.A]
- b. The Permittee shall keep complete records of the materials used as fuel for any stationary or portable source of air pollution which burns any material except natural gas. [PCC 17.16.010.C]
- c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the owner or operator thereof to a degree that will adequately reduce or eliminate the discharge of air pollution to adjoining property. [PCC 17.16.020.B]

4. Materials Handling Standards

- a. The Permittee shall not transport or store VOC's without taking necessary and feasible measures to control evaporation, leakage, or other discharge into the atmosphere. [PCC 17.16.400.A]
- b. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory. [PCC 17.16.430.F]

5. Odor Limiting Standard

The Permittee shall not emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution. [PCC 17.16.430.D]

6. Opacity Limit

Except as otherwise specified in the Specific Conditions of this permit, the opacity of all plumes and effluents from all point, non-point, or fugitive emission sources shall not exceed 20% as determined by EPA Reference Method 9, Appendix A, 40 CFR Part 60. [PCC 17.16.040, PCC 17.16.050.B, & PCC 17.16.130.B.1]

[This condition is Federally Enforceable when opacity is above 40%]

- a. Opacities (optical densities), as measured in accordance with Method 9, of an effluent shall be measured by a certified visible emissions evaluator with his natural eyes, approximately following the procedures which were used during his certification, or by an approved and precisely calibrated in-stack monitoring instrument. [PCC 17.16.040.A.1]
- b. A violation of an opacity standard shall be determined by measuring and recording a set of consecutive, instantaneous opacities, and calculating the arithmetic average of the measurements within the set unless otherwise noted in this permit. The measurements shall be made at approximately fifteen-second intervals for a period of at least six minutes, and the number of required measurements shall be as specified in PCC Table 17.16.040. Sets need not be consecutive in time, and in no case shall two sets overlap. If the average opacity of the set of instantaneous measurements exceeds the maximum allowed by any rule, this shall constitute a violation. [PCC 17.16.040.A.2]
- c. The use of air or other gaseous diluents solely for the purpose of achieving compliance with an opacity standard is prohibited. [PCC 17.16.040.A.3]
- d. When the presence of uncombined water is the only reason for failure of a source to otherwise meet the requirements of 6 and 7 of this Section, 6 and 7 of this Section shall not apply. [PCC 17.16.040.B]

7. Visibility Limiting Standard

[PCC 17.16.050]

- a. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.
- b. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.
 - i. 7.b of this Section shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source.
 - ii. 7.b of this Section shall not apply to the generation of airborne particulate matter from undisturbed land.

8. Monitoring Requirements

[PCC 17.13.020.A.3]

Except as otherwise contained in the Specific Conditions of this permit, monitoring for compliance with the facility-wide standards in 3 through 7 of this Section shall not be necessary. The Control Officer may ask the Permittee to conduct additional monitoring if the Control Officer has reasonable cause to believe a violation of the standards has been committed.

9. Recordkeeping Requirements

[PCC 17.13.020.A.4]

a. Monitoring Information

The Permittee shall maintain records of monitoring information required by this permit. Records shall include at a minimum:

- i. The date, time, and permit Condition requiring the measurement, sampling, inspection, or procedure;
- ii. The name of the person conducting the measurement, sampling, inspection or procedure;
- iii. The particular piece of equipment, process, or area being monitored including a description of the operating conditions and monitoring procedure, technique, or methods used as applicable; and,
- iv. The results of the monitoring including any discrepancy or excess emissions. If there are any monitoring discrepancies or excess emissions, the records shall include the corrective actions taken.

b. Record Retention

All records required by this permit shall be retained for at least five years.

[PCC 17.13.020.4.b]

c. Recordkeeping for Compliance Determinations

- i. The Permittee shall retain a copy of the permit onsite including all required monitoring records and support information for review by the Control Officer.
- ii. In addition, all equipment identified in the permit equipment list shall be marked with a unique, clearly visible, and accessible ID to identify the piece of equipment.
- iii. The Permittee shall be considered in compliance by demonstrating that sufficient information on the equipment and facility operations is periodically collected, recorded, and maintained to assure that the compliance status of any specific condition of this permit can be readily ascertained at any time.

[PCC 17.11.060, & PCC 17.24.020.A]

10. Reporting Requirements

[PCC 17.13.020.A.5]

a. Excess Emissions Reporting

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. The report shall be in 2 parts as specified below:

[PCC 17.13.020.A.5 and PCC 17.13.190]

- i. Notification by telephone or facsimile within 24 hours of the time the Permittee first learned of the occurrence of excess emission that includes all available information pursuant to PCC 17.13.190.B. To report excess emissions, call **520-724-7400**, fax to **520-838-7432**, or e-mail air.notices@pima.gov.
- ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification in 10.a.i above. Send to **PDEQ 33 N. Stone Ave, Suite 700, Tucson, Arizona 85701** or e-mail air.notices@pima.gov.

b. Emissions Inventory Reporting:

[PCC 17.13.180]

When requested, the Permittee shall complete and submit to the Control Officer, an annual emissions inventory questionnaire.

- c. Certification of Truth Accuracy and Completeness [PCC 17.13.010.I]

All reports required by this permit shall contain certification by a responsible official of truth, accuracy and completeness.

11. Facility Changes

- a. Before installing additional units, removing units, modifying existing emission equipment or switching fuels, the Permittee shall apply for the appropriate revision pursuant to PCC 17.13.100, PCC 17.13.130 or PCC 17.13.140. [PCC 17.13.020.A.2]
- b. For facility changes that do not require revision, the Permittee may make the changes if written notice is provided to the Control Officer in advance of the changes in accordance with PCC 17.11.090.C. [PCC 17.13.110.C]
- c. The Permittee shall maintain a log of other facility changes that do not require revision or notice in accordance with PCC 17.13.110.B. [PCC 17.13.110.B]

12. Testing Requirements

[PCC 17.11.160, PCC 17.11.210, PCC 17.20.010, ACC R18-2-311 & ACC R18-2-312]

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed.

- a. Operational Conditions During Testing

Performance tests shall be conducted under such conditions as the Control Officer shall specify to the plant operator based on representative performance of the source. The owner or operator shall make available to the Control Officer such records as may be necessary to determine the conditions of the performance tests. Operations during start-up, shutdown, and malfunction (as defined in PCC 17.04.340.A) shall not constitute representative operational conditions unless otherwise specified in the applicable requirement.

- b. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual, 40 CFR 52; Appendices D and E, 40 CFR 60; Appendices A through F; and 40 CFR 61, Appendices B and C unless modified by the Control Officer pursuant to PCC 17.11.210.B.
- c. Test Plan

At least 14 working days prior to performing a test, the Permittee shall submit a test plan to the Control Officer, in accordance with PCC 17.11.210.D and the Arizona Testing Manual.

- d. Stack Sampling Facilities

The Permittee shall provide or cause to be provided performance testing facilities as follows:

- i. Sampling ports adequate for test methods applicable to the facility;
- ii. Safe sampling platform(s);
- iii. Safe access to sampling platform(s); and
- iv. Utilities for sampling and testing equipment.

e. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Control Officer's approval, be determined using the arithmetic mean of the results of the other two runs. If the Control Officer or the Control Officer's designee is present, tests may only be stopped with the Control Officer's or such designee's approval. If the Control Officer or the Control Officer's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test.

f. Report of Final Test Results

A written report of the results of performance tests conducted shall be submitted to the Control Officer within four weeks after the completion of the testing as specified in the Arizona Testing Manual. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and PCC 17.11.210.A.

- g. Except as provided in this Section, should the Permittee desire to test or be required to test to demonstrate compliance with the standards contained in this permit, the Permittee shall contact the Control Officer for test methods and guidelines.

13. Severability Clause

[PCC 17.13.020.A.6]

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected thereby.

14. Permit Revision, Reopening, Revocation and Reissuance, or Termination for Cause

[PCC 17.13.020.A.7.e]

The permit may be revised, reopened, revoked and reissued, or terminated for cause pursuant to PCC 17.13.150. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination; or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

15. Duty to Provide Information

[PCC 17.13.010.G and PCC 17.13.020.A.7.e]

- a. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records to the Control Officer along with a claim of confidentiality.
- b. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.
- c. The Permittee shall pay fees to the Control Officer pursuant to PCC 17.13.240.

[PCC 17.13.020.A.9 & PCC 17.13.240]

SECTION 2: SPECIFIC CONDITIONS

NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR CALCINERS AND DRYERS IN MINERAL INDUSTRIES

Facilities subject to the NSPS for Calciners and Dryers in Mineral Industries (40 CFR Part 60, Subpart UUU.)

Applicability

16. The conditions of this section are applicable to the NSPS affected facilities identified in Attachment 1, Table 1 and their associated pollution control equipment identified in Attachment 1, Table 4 of this permit.

Emission Limits and Standards

17. The Permittee shall not discharge any emissions into the atmosphere from any affected facility that:
- Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057g/dscm (0.025 gr/dscf) for dryers. [40 CFR 60.732 (a)]
[Federally Enforceable Condition]
 - Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device. [40 CFR 60.732 (b)]
[Federally Enforceable and Material Permit Condition]
18. NSPS Determination Detail
- The Permittee shall not emit more than 11 tons of particulate emissions into the atmosphere per year from the Large Spray Dryer or the Pendulum Kiln, equipment numbers SD-702 and FU-201, respectively, by installing, operating and maintaining pollution control equipment identified in Attachment 1 Table 4 of this permit. [PCC.17.11.190.B]
[Federally Enforceable Condition and Voluntary Accepted Limitation]
 - Reprocessing facilities that process alumina and emit less than 11 tons/yr are exempt from monitoring requirements of Subpart UUU. [EPA DETERMINATION DETAIL CONTROL NUMBER 9600060] [PCC.17.11.190.B]
[Federally Enforceable Condition and Voluntary Accepted Limitation]
 - The opacity standards set forth in 17.b of the Specific Conditions shall apply at all times to stack emissions except during periods of startup, shutdown, and malfunction. [40 CFR 60.11(c)]
[Federally Enforceable and Material Permit Condition]
 - At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control (APC) equipment, identified in Attachment 1, Tables 1 and 4 in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator or the Control Officer which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]
[Federally Enforceable and Material Permit Condition]

Monitoring Requirements

[PCC 17.13.020.A.3]

19. Large Spray Dryer and Pendulum Kiln Emissions

- a. To determine compliance with the applicable emissions limitation and standards in 17 of the Specific Conditions, the Permittee shall monitor the following: [PCC 17.11.140]
 - i. The process operating parameters and limits,
 - ii. The maintenance procedures and schedules, and
 - iii. The documentation methods necessary to demonstrate proper operation and maintenance of the APC system.
- b. To determine compliance with opacity limitation in 17.b (10%), the Permittee shall observe the emission points of the stacks Large Spray Dryer Baghouse and Pendulum Kiln Baghouse at least once each day when the affected facilities are operating. If the observer sees a plume that, on an instantaneous basis, appears to exceed 10%, then the Permittee shall, if practicable, take a six-minute Method 9 observation of the plume. If the emissions are greater than 10% opacity, this shall be recorded and reported as an excess emission.

20. Harrop Shuttle Kiln Emissions

- a. To determine compliance with the applicable emissions limitation and standards in 17 of the Specific Conditions, the Permittee shall monitor the following: [PCC 17.11.140]
 - i. The process operating parameters and limits and
 - ii. The maintenance procedures and schedules
- b. To determine compliance with opacity limitation in 17.b (10%), the Permittee shall observe the emission point of the stacks at least once each day when the affected facility is operating. If the observer sees a plume that, on an instantaneous basis, appears to exceed 10%, then the Permittee shall, if practicable, take a six-minute Method 9 observation of the plume. If the emissions are greater than 10% opacity, this shall be recorded and reported as an excess emission and a permit deviation.

Opacity Limitation

[PCC 17.16.040]

21. To determine compliance with the facility wide opacity limitation (20%) in permit condition 6 in Section 1 of the permit, the Permittee shall observe the operation of the Pendulum Kiln at least once per day when the affected facility is operating. If the observer sees a plume that, on an instantaneous basis, appears to exceed 20%, then the Permittee shall, if practicable, take a six-minute Method 9 observation of the plume. If the emissions are greater than 20% opacity, this shall be recorded and reported as an excess emission according to permit condition 10.a in Section 1.

Recordkeeping Requirements

[PCC 17.13.020.A.4]

22. The Permittee shall record the results of all observations of the Pendulum Kiln, Large Spray Dryer, Shuttle Kilns and their associated APC equipment in accordance with the operation and maintenance plan and shall include the information required in 9.a of the General Conditions.
23. The Permittee shall record all monitoring results including EPA reference Method 9 observations, excess emissions and permit deviations. If no visible emissions are observed, the record shall reflect this. Records of such checks shall include the information required in 9.a of the General Conditions.

Reporting Requirements

[PCC 17.13.020.A.5]

24. Operation and Maintenance

When required, the Permittee shall report the results of all observations of the Pendulum Kiln and Large Spray Dryer Baghouses in accordance with the operation and maintenance plan.

25. Excess emissions shall be reported according to section 10.a of the General Conditions.

Testing Requirements

[40 CFR 60.736]

[Federally Enforceable and Material Permit Condition]

26. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).

[40 CFR 60.736 (a)]

[Federally Enforceable and Material Permit Condition]

27. The owner or operator shall determine compliance with the particulate matter standards in 17 of the Specific Conditions as follows:

[40 CFR 60.736 (b) & 40 CFR 60.732]

[Federally Enforceable and Material Permit Condition]

a. Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

[40 CFR 60.736 (b)(1)]

[Federally Enforceable and Material Permit Condition]

b. Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.

[40 CFR 60.736 (b)(2)]

[Federally Enforceable and Material Permit Condition]

SECTION 3

STANDARDS OF PERFORMANCE FOR UNCLASSIFIED SOURCES

Applicability

28. The conditions of this section are applicable to the equipment identified in Attachment 1, Table 2 and their associated APC listed in Attachment 1, Table 4 of this permit.

Emission Limits & Standards

[PCC 17.16.430.A]

29. For particulate matter discharged into the atmosphere in any one hour from any unclassified process source in total quantities in excess of the amounts calculated by one of the following equations:
- a. For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 3.59P^{0.62}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight in tons-mass per hour.

- b. For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$$E = 17.31P^{0.16}$$

where:

E and P are defined as indicated in paragraph 'a' of this subdivision.

Monitoring Requirements

30. Opacity Limitation

The Permittee shall observe the emission points of the equipment listed in Attachment 1, Table 2 and, if applicable their associated APC equipment listed in Table 4 at least once each day when the facilities are operating. If the observer sees a plume that, on an instantaneous basis, appears to exceed 20%, then the Permittee shall, if practicable, take a six-minute Method 9 observation of the plume. If the emissions are 20% or more, this shall be recorded and reported as excess emissions.

Recordkeeping Requirements

31. The Permittee shall record all observations made under Monitoring described in 30 of the Specific Conditions. If no visible emissions are observed, the record shall reflect this. Records shall include the information specified in 9.a of the General Conditions.

Reporting Requirements

32. The Permittee shall report excess emissions according to the reporting requirements of 10.a of the general conditions.

SECTION 4

STANDARDS OF PERFORMANCE FOR FOSSIL FUEL FIRED INDUSTRIAL AND COMMERCIAL EQUIPMENT

Applicability

33. The conditions of this section are applicable to the Fossil Fuel Fired Equipment identified in Attachment 1, Table 3 of this permit.

Emission Limits and Standards

34. Opacity Limitation

The Permittee shall not cause, allow or permit the effluent from the boiler to have an average optical density equal to or greater than 20 percent. [PCC 17.16.040]

35. Fuel Limitation

The Permittee shall burn only the specified fuel allowed for the boiler in Attachment 1, Table 3 of this Permit. [PCC 17.11.190.B]

[Material Permit Condition]

Monitoring Requirements

36. A demonstration to show compliance with the emission limitation for opacity in 34 of this permit shall not be required since the percent of opacity of visible emissions whilst combusting natural gas is inherently low. The Permittee shall operate and maintain the boiler at all times, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practices and consistent with manufacturer's guidelines.
37. The Permittee shall be considered in compliance with the fuel limitation in 35 of this permit by demonstrating that boiler was fired only by the specified fuel allowed as listed in Attachment 1, Table 3 of this permit. Such a demonstration may be made by actual inspection of the equipment showing that the specified fuel is the only fuel supply plumbed to the equipment for firing.

Recordkeeping Requirements

38. None Required

Reporting Requirements

39. None Required

APPLICABLE REGULATIONS

Code of Federal regulations (CFR):

40 CFR 60 Subpart UUU: Standards of Performance for Calciners and Dryers in Mineral Industries

Pima County Code (PCC) Title 17, Chapter 17.16:

- 17.16.020 Noncompliance with applicable standards
- 17.16.030 Odor Limiting Standards
- 17.16.040 Standards and applicability - Includes NESHAPS
- 17.16.050 Visibility Limiting Standard
- 17.16.100 Particulate materials
- 17.16.130 Applicability
- 17.16.165 Standards of performance for fossil fuel fired industrial and commercial equipment
- 17.16.400 Organic solvents and other organic materials
- 17.16.430 Standards of performance for unclassified sources

ATTACHMENT 1: EQUIPMENT LIST

(TABLES 1 THROUGH 4)

Table 1: NSPS Equipment Subject to Subpart UUU

Equipment Number	Item	Make	Model	Serial Number	Manufacturer Date	Capacity
FU-201	Pendulum Kiln	Reidhammer	DP8/10G	61000500	2007	2.05 MM Btu/Hr
SD-702	Large Spray Dryer	Niro	FU11	914	Unknown	0.67 MM Btu/Hr
FU-500	Harrop Shuttle Kiln #1	Harrop	GF-SG-48/44/96-7000-2900	4163	1996	7.0 MM Btu/Hr
FU-501	Harrop Shuttle Kiln #2	Harrop	GF-SG-48/44/96-7000-2900	4395	2005	7.0 MM Btu/Hr

Table 2: Unclassified Equipment

Equipment Number	Item	Make	Model	Serial Number	Manufacturer Date	Capacity
FU-600	Tunnel Kiln #1	Reidhammer	TR16/2x34/20ox/G	00/10026	2001	1.19 MM Btu/Hr
FU-610	Tunnel Kiln #2	Noritake	BRK-1620-G	05024-1	2005	2.16 MM Btu/Hr
FU-620	Tunnel Kiln #3	Noritake	BRK-1620-G	05024-2	2006	2.16 MM Btu/Hr
EF-633	Tunnel Kiln #4	Harrop	GF-TN-42-6500-3090	4528	2014	6.5 MM Btu/Hr
SD-701	Small Spray Dryer	Niro	F15	600	1983	0.18 MM Btu/Hr
JM-214	24" Jet Mill	Sturtevant	24" Micronizer	1044	1995	800 DSCFM
JM-500	24" Jet Mill	Sturtevant	24" Micronizer	1221	1995	800 DSCFM
JM-670	Jet Mill	Netzsch	s-JET 500	8667	2013	776 DSCFM

Table 3: Fossil Fuel Fired Commercial and Industrial Equipment

Equipment Number	Item	Make	Model	Serial Number	Manufacturer Date	Capacity MM Btu/Hr	Allowable Fuel
BO-660	Steam Jet Mill Steam Generation Unit	Vapor Power International	HS2-E4626-SHR	23962	2013	4.30	Natural Gas
SH-660	Steam Jet Mill Steam Superheater Unit	Vapor Power International	H9-4322-SHR	23963	2013	1.50	Natural Gas

Table 4: Air Pollution Control (APC) Equipment

Equipment Number	Item	Make	Model	Serial Number	Manufacturer Date	Capacity
APC Equipment for NSPS Facilities						
BH-201	Pendulum Kiln Baghouse	Mikropul	144S-TR10	79202H1	1992	5000 SCFM
BH-702	Cyclone & Large Spray Dryer Baghouse	Niro Cyclone Mikropul Baghouse	25S8 30C	890014 H1	Unknown	641 SCFM
APC Equipment for Non-NSPS Facilities						
BH-701	Small Spray Dryer Baghouse	Mikropul	16S4 30	76620H1	Unknown	196 SCFM
BH-214	24" Jet Mill Baghouse	C.P. Environ.	84FR030S	3822	1996	800 SCFM
BH-500	24" Jet Mill Baghouse	Harrop	GF-SG-48/44/96-7000-2900	TBD	1996	1000 SCFM
BH-670	Netsch Jet Mill Baghouse	PEK Filter	FKR-36/23/TR/SG	U200906/0110	2013	776 DSCFM @ 250 °F

Notes: SCFM = Standard cubic feet per minute
 DCFM = Dry Standard cubic feet per minute

ACFM = Actual cubic feet per minute