



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM**

STATE ONLY NATURAL MINOR OPERATING PERMIT

Issue Date: October 17, 2024

Effective Date: October 31, 2024

Expiration Date: October 17, 2029

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated.

State Only Permit No: 04-00723

Natural Minor

Federal Tax Id - Plant Code: 92-0353429-1

Owner Information

Name: MCDANEL ADV CERAMIC TECH LLC

Mailing Address: 510 9TH AVE
BEAVER FALLS, PA 15010-4700

Plant Information

Plant: MCDANEL ADVANCED CERAMIC TECH DBA MCDANEL ADVANCED MATERIAL

Location: 04 Beaver County 04003 Beaver Falls City

SIC Code: 3264 Manufacturing - Porcelain Electrical Supplies

Responsible Official

Name: MARC VALENTIN

Title: CFO

Phone: (724) 359 - 1246

Email: mvalentin@mcdanelceramics.com

Permit Contact Person

Name: MARC VALENTIN

Title: CFO

Phone: (724) 359 - 1246

Email: mvalentin@mcdanelceramics.com

[Signature] _____

MARK R. GOROG, P.E., ENVIRONMENTAL PROGRAM MANAGER, SOUTHWEST REGION



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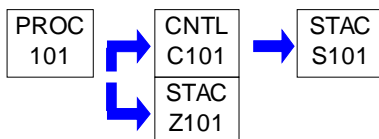
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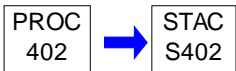
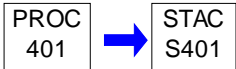
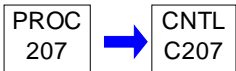
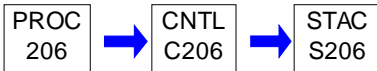
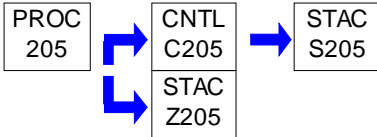
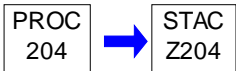
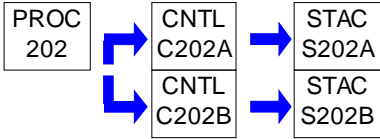
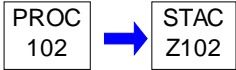
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	MATERIAL HANDLING, PROCESSING, & FINISHING		
102	KILNS & DRYERS		
201	CERIC SHUTTLE KILN 581 (K-20)		
202	BISQUE KILN 582 (K-21)		
203	KILN K530 (KILN SHED)		
204	KILN K533 (KILN SHED)		
205	SIALON MIXING		
206	DO-4 BLUE MAND TRENT ELECTRIC OVENS		
207	SIALON KILN AVS 3000 (ELECTRIC)		
401	EG-1 EMERGENCY GENERATOR 330 HP		
402	EG-2 EMERGENCY GENERATOR 15.1 HP		
C101	MATERIAL HANDLING, PROCESSING, & FINISHING DUST COLLECTORS		
C201	CERIC AFTERBURNER (AF-1)		
C202A	AFTERBURNER KILN 582 (AF-2)		
C202B	AFTERBURNER KILN 582 (AF-3)		
C203	AF-4 AFTERBURNER 3.0 MMBTU/HR		
C205	SIALON DUST COLLECTOR		
C206	AF-5 AFTERBURNER - YORKAIRE		
C207	HYDRO THRIFT CHILLER		
S101	MATERIAL HANDLING, PROCESSING, & FINISHING STACK		
S201	AFTERBURNER KILN 581 AF-1 STACK		
S202A	STACK FOR AFTERBURNER KILN 582 (AF-2)		
S202B	STACK FOR AFTERBURNER KILN 582 (AF-3)		
S203	AF-4 STACK		
S205	TORIT DUST COLLECTOR STACK		
S206	AF-5 STACK		
S401	EG-1 EMERGENCY GENERATOR STACK		
S402	EG-2 EMERGENCY GENERATOR STACK		
Z101	MATERIAL HANDLING, PROCESSING & FINISHING FUGITIVE EMISSIONS		
Z102	KILNS & DRYERS FUGITIVE EMISSIONS		
Z204	KILN K533 (KILN SHED) FUGITIVE EMISSIONS		
Z205	SIALON MIXING FUGITIVE EMISSIONS		

PERMIT MAPS



PERMIT MAPS



**SECTION B. General State Only Requirements****#001 [25 Pa. Code § 121.1]****Definitions.**

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and in 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.446]**Operating Permit Duration.**

- (a) This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit.
- (b) The terms and conditions of the expired permit shall automatically continue pending issuance of a new operating permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit.

#003 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446 & 127.703(b)]**Permit Renewal.**

- (a) The permittee shall submit a timely and complete application for renewal of the operating permit to the appropriate Regional Air Program Manager. The application for renewal of the operating permit shall be submitted at least six (6) months and not more than 18 months before the expiration date of this permit.
- (b) The application for permit renewal shall include the current permit number, a description of any permit revisions that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.
- (c) The permittee shall submit with the renewal application a fee for the processing of the application as specified in 25 Pa. Code § 127.703(b). The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.
- (d) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413.
- (e) The application for renewal of the operating permit shall also include submission of supplemental compliance review forms in accordance with the requirements of 25 Pa. Code § 127.412(b) and § 127.412(j).
- (f) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information as necessary to address any requirements that become applicable to the source after the permittee submits a complete application, but prior to the date the Department takes action on the permit application.

#004 [25 Pa. Code § 127.703]**Operating Permit Fees under Subchapter I.**

- (a) The permittee shall pay the annual operating permit maintenance fee according to the following fee schedule in either paragraph (1) or (2) in accordance with 25 Pa. Code § 127.703(d) on or before December 31 of each year for the next calendar year.
- (1) For a synthetic minor facility, a fee equal to:
- (i) Four thousand dollars (\$4,000) for calendar years 2021—2025.
 - (ii) Five thousand dollars (\$5,000) for calendar years 2026—2030.
 - (iii) Six thousand three hundred dollars (\$6,300) for the calendar years beginning with 2031.

**SECTION B. General State Only Requirements**

(2) For a facility that is not a synthetic minor, a fee equal to:

- (i) Two thousand dollars (\$2,000) for calendar years 2021—2025.
- (ii) Two thousand five hundred dollars (\$2,500) for calendar years 2026—2030.
- (iii) Three thousand one hundred dollars (\$3,100) for the calendar years beginning with 2031.

(b) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#005 [25 Pa. Code §§ 127.450 (a)(4) and 127.464]**Transfer of Operating Permits.**

(a) This operating permit may not be transferred to another person, except in cases of transfer-of-ownership that are documented and approved by the Department.

(b) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership of the source shall be treated as an administrative amendment if the Department determines that no other change in the permit is required and a written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee and a compliance review form has been submitted to, and the permit transfer has been approved by, the Department.

(c) This operating permit is valid only for those specific sources and the specific source locations described in this permit.

#006 [25 Pa. Code § 127.441 and 35 P.S. § 4008]**Inspection and Entry.**

(a) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department or authorized representatives of the Department to perform the following:

(1) Enter at reasonable times upon the permittee's premises where a source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

(3) Inspect at reasonable times, any facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;

(4) Sample or monitor, at reasonable times, any substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act or regulations adopted thereunder including denying the Department access to a source at this facility. Refusal of entry or access may constitute grounds for permit revocation and assessment of criminal and/or civil penalties.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#007 [25 Pa. Code §§ 127.441 & 127.444]**Compliance Requirements.**

(a) The permittee shall comply with the conditions of this operating permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one or more of the following:

**SECTION B. General State Only Requirements**

- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source which is subject to 25 Pa. Code Article III unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued for the source is operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this State-Only permit. Nothing in this sub-condition shall be construed to create an independent affirmative duty upon the permittee to obtain a predetermination from the Department for physical configuration or engineering design detail changes made by the permittee.

#008 [25 Pa. Code § 127.441]**Need to Halt or Reduce Activity Not a Defense.**

It shall not be a defense for the permittee in an enforcement action that it was necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#009 [25 Pa. Code §§ 127.442(a) & 127.461]**Duty to Provide Information.**

(a) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of each source at the facility.

(b) The permittee shall furnish to the Department, in writing, information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to maintain in accordance with this permit.

#010 [25 Pa. Code § 127.461]**Revising an Operating Permit for Cause.**

This operating permit may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

- (1) The permittee constructs or operates the source subject to the operating permit so that it is in violation of the Air Pollution Control Act, the Clean Air Act, the regulations thereunder, a plan approval, a permit or in a manner that causes air pollution.
- (2) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.
- (3) The permittee has failed to submit a report required by the operating permit or an applicable regulation.
- (4) The EPA determines that the permit is not in compliance with the Clean Air Act or the regulations thereunder.

#011 [25 Pa. Code §§ 127.450, 127.462, 127.465 & 127.703]**Operating Permit Modifications**

(a) The permittee is authorized to make administrative amendments, minor operating permit modifications and significant operating permit modifications, under this permit, as outlined below:

**SECTION B. General State Only Requirements**

(b) Administrative Amendments. The permittee shall submit the application for administrative operating permit amendments (as defined in 25 Pa. Code § 127.450(a)), according to procedures specified in § 127.450 unless precluded by the Clean Air Act or its regulations.

(c) Minor Operating Permit Modifications. The permittee shall submit the application for minor operating permit modifications (as defined 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.

(d) Significant Operating Permit Modifications. The permittee shall submit the application for significant operating permit modifications in accordance with 25 Pa. Code § 127.465.

(e) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#012 [25 Pa. Code § 127.441]**Severability Clause.**

The provisions of this permit are severable, and if any provision of this permit is determined by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

#013 [25 Pa. Code § 127.449]**De Minimis Emission Increases.**

(a) This permit authorizes de minimis emission increases in accordance with 25 Pa. Code § 127.449 so long as the permittee provides the Department with seven (7) days prior written notice before commencing any de minimis emissions increase. The written notice shall:

(1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.

(2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

(b) The Department may disapprove or condition de minimis emission increases at any time.

(c) Except as provided below in (d), the permittee is authorized to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

(1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.

(2) One ton of NO_x from a single source during the term of the permit and 5 tons of NO_x at the facility during the term of the permit.

(3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM₁₀ from a single source during the term of the permit and 3.0 tons of PM₁₀ at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) In accordance with § 127.14, the permittee is authorized to install the following minor sources without the need for a plan approval or permit modification:

**SECTION B. General State Only Requirements**

- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
 - (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
 - (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code §123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
 - (4) Space heaters which heat by direct heat transfer.
 - (5) Laboratory equipment used exclusively for chemical or physical analysis.
 - (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (e) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (c)(4) and (5) of this permit condition.
 - (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
 - (3) Violate any applicable requirement of this permit, the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases, installation of minor sources made pursuant to this permit condition and Plan Approval Exemptions under 25 Pa. Code § 127.14 (relating to exemptions), the permittee is prohibited from making changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#014 [25 Pa. Code § 127.3]**Operational Flexibility.**

The permittee is authorized to make changes within the facility in accordance with the regulatory provisions outlined in 25 Pa. Code § 127.3 (relating to operational flexibility) to implement the operational flexibility requirements provisions authorized under Section 6.1(i) of the Air Pollution Control Act and the operational flexibility terms and conditions of this permit. The provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements include the following:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with Federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)

**SECTION B. General State Only Requirements**

(6) Section 127.462 (relating to minor operating permit modifications)

(7) Subchapter H (relating to general plan approvals and general operating permits)

#015 [25 Pa. Code § 127.11a]**Reactivation of Sources**

(a) The permittee may not reactivate a source that has been out of operation or production for at least one year unless the reactivation is conducted in accordance with a plan approval granted by the Department or in accordance with reactivation and maintenance plans developed and approved by the Department in accordance with 25 Pa. Code § 127.11a(a).

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#016 [25 Pa. Code § 127.36]**Health Risk-based Emission Standards and Operating Practice Requirements.**

(a) When needed to protect public health, welfare and the environment from emissions of hazardous air pollutants from new and existing sources, the permittee shall comply with the health risk-based emission standards or operating practice requirements imposed by the Department, except as precluded by §§ 6.6(d)(2) and (3) of the Air Pollution Control Act [35 P.S. § 4006.6(d)(2) and (3)].

(b) A person challenging a performance or emission standard established by the Department has the burden to demonstrate that performance or emission standard does not meet the requirements of Section 112 of the Clean Air Act.

#017 [25 Pa. Code § 121.9]**Circumvention.**

No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of 25 Pa. Code Article III, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#018 [25 Pa. Code §§ 127.402(d) & 127.442]**Reporting Requirements.**

(a) The permittee shall comply with the applicable reporting requirements of the Clean Air Act, the regulations thereunder, the Air Pollution Control Act and 25 Pa. Code Article III including Chapters 127, 135 and 139.

(b) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of any air contamination source.

(c) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given in the permit transmittal letter, or otherwise notified)

(d) Any records or information including applications, forms, or reports submitted pursuant to this permit condition shall contain a certification by a responsible official as to truth, accuracy and completeness. The certifications submitted under this permit shall require a responsible official of the facility to certify that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.

(e) Any records, reports or information submitted to the Department shall be available to the public except for such

**SECTION B. General State Only Requirements**

records, reports or information which meet the confidentiality requirements of § 4013.2 of the Air Pollution Control Act and §§ 112(d) and 114(c) of the Clean Air Act. The permittee may not request a claim of confidentiality for any emissions data generated for the facility.

#019 [25 Pa. Code §§ 127.441(c) & 135.5]**Sampling, Testing and Monitoring Procedures.**

(a) The permittee shall comply with the monitoring, recordkeeping or reporting requirements of 25 Pa. Code Chapter 139 and the other applicable requirements of 25 Pa. Code Article III and additional requirements related to monitoring, reporting and recordkeeping required by the Clean Air Act and the regulations thereunder including the Compliance Assurance Monitoring requirements of 40 CFR Part 64, where applicable.

(b) Unless alternative methodology is required by the Clean Air Act and regulations adopted thereunder, sampling, testing and monitoring required by or used by the permittee to demonstrate compliance with any applicable regulation or permit condition shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139.

#020 [25 Pa. Code §§ 127.441(c) and 135.5]**Recordkeeping.**

(a) The permittee shall maintain and make available, upon request by the Department, the following records of monitored information:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of any required monitoring data and supporting information for at least five (5) years from the date of the monitoring, sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

#021 [25 Pa. Code § 127.441(a)]**Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privileges.

#022 [25 Pa. Code § 127.447]**Alternative Operating Scenarios.**

The permittee is authorized to make changes at the facility to implement alternative operating scenarios identified in this permit in accordance with 25 Pa. Code § 127.447.

**SECTION B. General State Only Requirements****#023** [25 Pa. Code §135.3]**Reporting**

(a) If the facility is a Synthetic Minor Facility, the permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator of a Synthetic Minor Facility may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#024 [25 Pa. Code §135.4]**Report Format**

If applicable, the emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.

**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).**

<p># 001 [25 Pa. Code §121.7] Prohibition of air pollution. No person may permit air pollution as that term is defined in the act.</p>
<p># 002 [25 Pa. Code §123.1] Prohibition of certain fugitive emissions The Owner/Operator may not permit the emission into the outdoor atmosphere of a fugitive air contaminant from a source other than those allowed under 25 Pa. Code §123.1.</p>
<p># 003 [25 Pa. Code §123.2] Fugitive particulate matter The Owner/Operator may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 Pa. Code §123.1(a)(1) - (9) (relating to prohibition of certain fugitive emissions) if the emissions are visible at the point the emissions pass outside the Owner/Operator's property.</p>
<p># 004 [25 Pa. Code §123.31] Limitations The Owner/Operator may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside of the property of the Facility.</p>
<p># 005 [25 Pa. Code §127.441] Operating permit terms and conditions. Visible emission limitations shall not apply when the emission results from sources specified in 25 Pa. Code §123.1(a)(1) - (9) (relating to prohibition of certain fugitive emissions) (Additional authority for this condition is derived from 25 Pa. Code §123.42).</p>
<p># 006 [25 Pa. Code §127.441] Operating permit terms and conditions. The use of pipeline quality natural gas ensures compliance with the 25 Pa. Code §123.13 particulate matter emission limit and the 25 Pa. Code 123.21 sulfur limitation for the process units listed in the SOOP.</p>
<p># 007 [25 Pa. Code §129.14] Open burning operations</p> <p>(a) Air basins. No person may permit the open burning of material in an air basin.</p> <p>(b) N/A</p> <p>(c) Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:</p> <ol style="list-style-type: none"> (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer. (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department. (3) A fire set for the prevention and control of disease or pests, when approved by the Department. (4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation. (5) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of such structure. (6) A fire set solely for recreational or ceremonial purposes. (7) A fire set solely for cooking food. <p>(d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:</p>



SECTION C. Site Level Requirements

(1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:

(i) Air curtain destructors shall be used when burning clearing and grubbing wastes.

(ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning. Proposals approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 (relating to construction modification, reactivation and operation of sources).

(iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.

(iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.

(3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:

(i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.

(ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

II. TESTING REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

If, at any time, the Department has cause to believe that air contaminant emissions from the sources listed in this Plan Approval may be in excess of the limitations specified in or established pursuant to this plan approval or the Owner/Operator's operating permit, the Owner/Operator may be required to conduct test methods and procedures deemed necessary by the Department to determine the actual emissions rate. Such testing shall be conducted in accordance with 25 Pa. Code Chapter 139, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.

III. MONITORING REQUIREMENTS.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions may be measured using either of the following:

- a. A device approved by the Department and maintained to provide accurate opacity measurements.
- b. Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of devices approved by the

**SECTION C. Site Level Requirements**

Department.

010 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The Owner/Operator shall conduct a facility-wide inspection at a minimum of once per day while the facility is in operation. This inspection is to ensure continued compliance with source-specific visible emission limitations, fugitive emissions prohibited under 25 Pa. Code §§123.1 or 123.2, and malodors prohibited under 25 Pa. Code §123.31. Observations shall be conducted for the presence of the following:

- a. Visible Stack emissions
- b. Fugitive emissions
- c. Potentially objectionable odors

011 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

If any visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent; the Owner/Operator shall take corrective action which may include EPA Method 9 readings.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Records of each inspection shall be maintained in a log and at the minimum include the date, time, name and title of the observer, along with any corrective action taken as a result.

013 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The Owner/Operator shall maintain the following comprehensive and accurate records:

- a. Production Records used for emission calculations;
- b. Emission calculations (expressed in tons) of NO_x, CO, PM, PM₁₀, PM_{2.5}, SO_x, VOC, total HAP, individual HAP, CH₄, and CO_{2e} on a 12-month rolling sum basis.
- c. Kiln firing cycle schedule on a 12-month rolling sum basis;
- d. Afterburner temperature readings per cycle;
- e. Kiln temperature readings per cycle;
- f. Hours of operation of each emergency generator engine(s) on a 12-month rolling sum basis and purpose for operation (emergency, maintenance and testing, emergency demand response, and non-emergency use);
- g. Fuel type and consumption (expressed in MMscf) of each engine on a 12-month rolling sum basis;
- h. VOC and HAP containing binder usage records;
- i. Facility wide natural gas purchase records;
- j. Maintenance conducted on the emergency generator(s);
- k. Maintenance conducted on each air contamination source and/or air cleaning device authorized under this SOOP;
- l. Records of preventative maintenance for all air cleaning devices;
- m. Manufacturer's recommended maintenance schedule and maintenance procedures for each air contamination source and air cleaning device authorized under this plan approval, where available;
- n. Records of corrective actions and/or EPA Method 9 readings:
- o. Daily Inspections for visible stack emissions, fugitive emissions, and potentially objectionable odors including the date, time, name, and title of the observer, along with any corrective action taken as a result;
- p. Copies of the monitoring log shall be retained by the owner for five (5) years after the date on which the record was made or the report was prepared and shall immediately be made available to the Department, upon request.

014 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

All logs and required records shall be maintained on site, or at an alternative location acceptable to the Department, for a

**SECTION C. Site Level Requirements**

minimum of five (5) years and shall be made available to the Department upon request.

015 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Facility-wide natural gas usage records shall be kept for five years and shall be made available upon request by the Department.

V. REPORTING REQUIREMENTS.**# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Facility is subject to New Source Performance Standards from 40 CFR Part 60 Subpart JJJJ and National Emission Standards for Hazardous Air Pollutants from 40 CFR Part 63 Subpart ZZZZ. In accordance with 40 CFR §§60.4 and 63.13; copies of all requests, reports, applications, submittals and other communications regarding affected sources shall be forwarded to the Department at the addresses listed below unless otherwise noted.

PADEP
Air Quality Program
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Copies of all requests, reports, applications, submittals, and other communications shall also be submitted to U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) accessible at <https://cdx.epa.gov/> unless electronic reporting is not available, in which case a copy shall be sent to the following address:

Director
Air Protection Division Mail Code 3AP00
1650 Arch Street
Philadelphia, PA 19103-2029
Region III e-mail box for electronic compliance certifications: R3_APD_Permits@epa.gov

017 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The Owner/Operator shall provide EPA with the notifications required by 40 CFR Part 60 Subpart A and 40 CFR Part 63 Subpart A.

018 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

i) Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control or process equipment, or, operating in a non-permitted manner, which results in, or may possibly be resulting in, the emission of air contaminants in excess of any applicable limitations specified in the permit. Poor maintenance or careless operation are not malfunctions.

ii) When the malfunction or incident poses an imminent and substantial danger to the public health and safety, and/or potential harm to the environment, the owner/operator shall report the incident to the Department and the County Emergency Management Agency immediately after the discovery of an incident. The owner/operator shall submit a written report of instances of such malfunctions or incidents to the Department within three (3) business days of the telephone report.

(a) The report shall describe the following:

1. name and location of the facility,
2. nature and cause of the malfunction or breakdown,
3. time when the malfunction or breakdown was first observed,
4. expected duration of excess emissions,
5. estimated rate of emissions,
6. corrective actions or preventative measures taken.

**SECTION C. Site Level Requirements**

iii) Any malfunction or incident that is not subject to the notice requirements of paragraph (ii) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or e-mail within five days of discovery of the incident. The report shall contain the same information required by paragraph (ii)(a) above.

iv) The Owner/Operator shall notify the Department immediately when corrective measures have been accomplished.

v) The Department may require, when a malfunction or other incident results in citizen complaints, the Owner/Operator to report the incident immediately to the Department. The Department will review the incident and determine if a written follow up report including corrective action is needed.

(vi) Malfunction telephone notifications and written reports shall be submitted to the Department at the following address:

PA DEP
Office of Air Quality
400 Waterfront Drive
Pittsburgh, PA 15222-4745
412-442-4000

Email addresses and alternative telephone numbers for notification purposes may be provided to the Owner/Operator by the Department or approved by the Department upon request from the Owner/Operator.

VI. WORK PRACTICE REQUIREMENTS.

019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All air contamination sources and air cleaning devices authorized under this SOOP shall be operated and maintained in accordance with the specifications and maintenance schedule recommended by the manufacturer or developed by the Owner/Operator in accordance with industry standards.

020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In-plant roadways shall be paved and maintained so as to prevent fugitive emissions.

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall comply with the applicable requirements of 40 CFR Part 98 related to the Mandatory Greenhouse Gas Reporting Rule.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to State Only General Requirements).

IX. COMPLIANCE SCHEDULE.

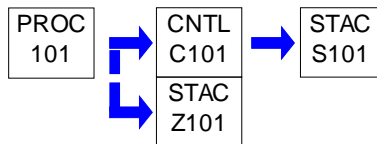
No compliance milestones exist.

**SECTION D. Source Level Requirements**

Source ID: 101

Source Name: MATERIAL HANDLING, PROCESSING, & FINISHING

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from a process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §123.41]

Limitations

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

Equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any 1 hour.

Equal to or greater than 60% at any time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Wax usage records shall be kept to monitor for VOC emissions.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall operate and maintain the dust collection units in accordance with the manufacturer's recommendations and maintenance schedule, where available, and in accordance with good operating practices.

**SECTION D. Source Level Requirements****VII. ADDITIONAL REQUIREMENTS.**

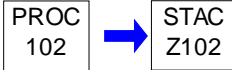
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: KILNS & DRYERS

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from a process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

003 [25 Pa. Code §123.41]

Limitations

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- Equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any 1 hour.
- Equal to or greater than 60% at any time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Kiln firing schedule and maintenance logs shall be kept for a minimum of 5 years on each kiln and shall be made available upon request by the Department.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The kilns shall be maintained and operated according to manufacturer's specifications, where available, and good

**SECTION D. Source Level Requirements**

operating practices.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The dryers shall be maintained and operated according to manufacturer's specifications, where available, and good operating practices.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 201

Source Name: CERIC SHUTTLE KILN 581 (K-20)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 102 NEW KILNS

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

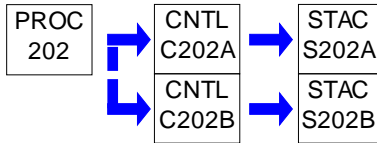
**SECTION D. Source Level Requirements**

Source ID: 202

Source Name: BISQUE KILN 582 (K-21)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 102 NEW KILNS

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**SECTION D. Source Level Requirements**

Source ID: 203

Source Name: KILN K530 (KILN SHED)

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

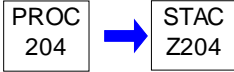
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 204

Source Name: KILN K533 (KILN SHED)

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

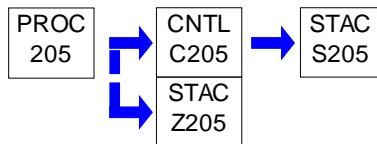
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 205

Source Name: SIALON MIXING

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Visible emission from the dust collection unit shall not exceed 10% opacity.

003 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Particulate matter emissions from the dust collection unit shall not exceed 0.02 gr/dscf.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In accordance with 25 Pa. Code 127.12b(a) and 127.25, the dust collection unit shall be operated and maintained in accordance with manufacturer's recommendations, where available, and good air pollution practices.

**SECTION D. Source Level Requirements****# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

As an alternative to stack testing to demonstrate compliance with the PM10 emission limitation, the Department approved a maintenance protocol program as an equivalent method of compliance demonstration for PM10 emissions. This approved maintenance protocol shall be followed to minimize malfunction of the Torit Dust Collector at the facility.

006 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

At a minimum, the maintenance protocol shall provide for:

- a daily visual inspection of the dust collection unit;
- a log of monthly pressure readings (kept for one year);
- annual use of a black light indicator powder to alert the operator to malfunctioning cartridges; and
- operation of the sources and the baghouse in accordance with the manufacturer's specifications and a requirement that the unit be operated with good operating practices

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 206

Source Name: DO-4 BLUE MAND TRENT ELECTRIC OVENS

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

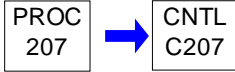
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION D. Source Level Requirements**

Source ID: 207

Source Name: SIALON KILN AVS 3000 (ELECTRIC)

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

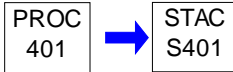
**SECTION D. Source Level Requirements**

Source ID: 401

Source Name: EG-1 EMERGENCY GENERATOR 330 HP

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 101 ENGINES

**I. RESTRICTIONS.****Emission Restriction(s).**

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
Am I subject to this subpart?**

The emergency generator engine (EG-1) is subject to the requirements of 40 CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

**# 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

In accordance with 40 CFR Part 60 Subpart JJJJ 60.4243, if you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

1. There is no time limit on the use of emergency stationary ICE in emergency situations.
2. You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).
 - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
 - ii. Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - iii. Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
3. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

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

**SECTION D. Source Level Requirements****II. TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

EG-1 is a new stationary RICE located at an area source. This engine must meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ. No further requirements apply for this EG-1 under 40 CFR Part 63 Subpart ZZZZ

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4246]**Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines****What parts of the General Provisions apply to me?**

The Owner/Operator shall comply with the applicable General Provisions in §§60.1 through 60.19 listed in Table 3 to 40 CFR Part 60 Subpart JJJJ.

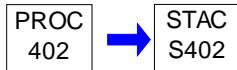
**SECTION D. Source Level Requirements**

Source ID: 402

Source Name: EG-2 EMERGENCY GENERATOR 15.1 HP

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 101 ENGINES

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

EG-2 is an existing, stationary RICE located at an area source of HAP emissions, you must comply with the requirements in 40 CFR 63 Subpart ZZZZ Table 2d which requires:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first; 1;
- b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

**SECTION E. Source Group Restrictions.**

Group Name: 101 ENGINES

Group Description: EMERGENCY ENGINE REQUIREMENTS

Sources included in this group

ID	Name
401	EG-1 EMERGENCY GENERATOR 330 HP
402	EG-2 EMERGENCY GENERATOR 15.1 HP

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from a process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §123.21]**General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

003 [25 Pa. Code §123.41]**Limitations**

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) and the recordkeeping requirements established in 40 CFR §§60.7 and 60.13, 40 CFR Part 60 and JJJJ and 40 CFR Part 63, Subpart ZZZZ.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.**

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

The engine is an "affected source" and subject to the requirements of 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

**SECTION E. Source Group Restrictions.**

Group Name: 102 NEW KILNS

Group Description: NEW KILNS WITH AFTERBURNERS

Sources included in this group

ID	Name
201	CERIC SHUTTLE KILN 581 (K-20)
202	BISQUE KILN 582 (K-21)

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.**# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall maintain the following comprehensive and accurate records:

- Kiln firing cycle schedule on a 12-month rolling sum basis;
- Afterburner temperature readings per cycle;
- Kiln temperature readings per cycle;
- VOC and HAP containing binder usage records;
- Records of preventative maintenance for all air cleaning devices; and
- Manufacturer's recommended maintenance schedule and maintenance procedures for each air contamination source and air cleaning device authorized under this plan approval, where available.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this State Only facility.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.

**SECTION H. Miscellaneous.**

As a minor facility, emissions from all sources and associated air cleaning devices at this facility cannot equal or exceed the following on a 12-month rolling sum basis:

- a. Nitrogen Oxides (NO_x) –100 tons
- b. Carbon Monoxide (CO) – 100 tons
- c. Total Particulate Matter (PM) –100 tons
- d. Sulfur Oxides (SO_x) –100 tons
- e. Volatile Organic Compounds (VOC) – 50 tons
- f. Hazardous Air Pollutants (HAP) –10 tpy for single HAP/25 tons

This list is included as a description not a limitation for this facility.

Afterburners (AF-1, AF-2, AF-3, AF-4, AF-5) are for VOC/HAP control and are programmed to operate on an intermittent basis to provide VOC/HAPs control based on product mix, binder type, firing cycle times, and optimum VOC/HAP destruction temperatures.

There are twenty (20) Dust Collectors named from DC-1 to DC-20. Among these dust collectors, six (DC-1 to DC-6) vent to the outdoor atmosphere through stacks; the others vent indoors.

Source ID 101 (Material Handling, Processing, & Finishing) includes:

- Holding Tanks (HT-10, HT-11, HT-12, HT-29) at Lightwall Department;
- Pressure Tank (PT-1) at Lightwall Department;
- Ball Mill (BM-10) at Zirconia Department;
- Crucible Finishing Table (CT-1) at Zirconia Department vents to Dust Collector DC-7;
- Water Chiller (Ball Mill Zirconia Mixer) (WC-3) at Zirconia Department;
- Holding Tanks (ZHT-9, ZHT-10, ZHT-11, ZHT-12, ZHT-13, ZHT-14) at Zirconia Department;
- Roller Mill (RM-1) at Zirconia Department;
- Holding Tanks (HT-13, HT-14, HT-15, HT-16) at Mullite Casting Department;
- Pressure Tank (PT-2) at Mullite Casting Department;
- Cut Off Saw (CS-3) at Kiln Shed Department vents to Dust Collector DC-20;
- Hydraulic Presses (HD-3, HD-4, HD-5) at Kiln Shed Department;
- Crucible Finishing Table (CT-2) at Alumina Casting Department vents to Dust Collector DC-1;
- Holding Tanks (HT-17, HT-18, HT-19, HT-20, HT-21, HT-22, HT-30, HT-31, HT-32) at Alumina Casting Department;
- Large Ware Finishing Hood (LWH-1) at Alumina Casting Department vents to Dust Collector DC-1;
- Moulds (M-2) at Alumina Casting Department;
- Pressure Tanks (PT-3, PT-4, PT-5) at Alumina Casting Department;
- Small Ware Finishing Hood (SWH-1) at Alumina Casting Department vents to Dust Collector DC-1
- Suction Hose #1 (SH-1) at Alumina Casting Department vents to Dust Collector DC-1;
- Suction Hose #2 (SH-2) at Alumina Casting Department vents to Dust Collector DC-1;
- Suction Hose #3 (SH-3) at Alumina Casting Department vents to Dust Collector DC-1;
- Suction Hose #4 (SH-4) at Alumina Casting Department vents to Dust Collector DC-1;
- Band Saw (BS-4) at Mould Shop Department;
- Drill Press (DP-4) at Mould Shop Department;
- Hydraulic Lifts (HL-1, HL-2) at Mould Shop Department;
- Lathes (L-10, L-11) at Mould Shop Department;
- Mould Forms (PMF-2) at Mould Shop Department;
- Plaster Mixer (PM-1) at Mould Shop Department vents to Dust Collector DC-8;
- Holding Tanks (HT-23, HT-24, HT-25, HT-26) at Collar Casting Department;
- Air Compressors (AC-1, AC-2, AC-3) at Raw Materials Department;
- Ball Mills (BM-1, BM-2, BM-3, BM-4, BM-5, BM-6, BM-7, BM-8 and BM-9) at Raw Materials Department vent to Dust Collector DC-4;
- Cement Mixer (CM-1) at Raw Materials Department vents to Dust Collector DC-10;
- Chiller (CH-2) at Raw Materials Department;
- Drill Press (DP-9) at Raw Materials Department;
- Filter Presses (FP-1, FP-2, FP-3) at Raw Materials
- Grog Crusher (GC-1) at Raw Materials Department vents to Dust Collector DC-4;
- Hobart Mixer (HM-1) at Raw Materials Department;
- Hobart Mixer-Small (HM-2) at Raw Materials Department;
- Hot Mixing Tank (HMT-1) at Raw Materials Department;
- Holding Tanks (HT-1, HT-2, HT-3, HT-4, HT-5, HT-6, HT-7, HT-8) at Raw Materials Department;

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- Kneader (KN-1) at Raw Materials Department;
- Magnet Filters (MF-1, MF-2) at Raw Materials Department;
- Magnet Filter (Fluffer MF-3) at Raw Materials (Warehouse) Department vents to Dust Collector DC-16;
- Shaker (Sweco: SK-1) at Raw Materials Department;
- Shaker (Warehouse: SK-2) at Raw Materials (Warehouse) Department;
- Spray Dryer (SD-1) at Raw Materials Department vents to Dust Collector DC-6;
- Simpson Mixer (SM-1) at Raw Materials Department;
- Centerless Grinders (CG-2, CG-3, CG-4, CG-5; wet) at Fired Machine Department;
- C&C Machine (CC-1; wet process) at Fired Machine Department;
- Cut Off Saws (CS-4, CS-5, CS-6, CS-10; wet) at Fired Machine Department;
- Hones (H-1, H-2) at Fired Machine Department;
- Lathes (L-4, L-5, L-7) at Fired Machine Department;
- Lathe Grinders (LG-1, LG-2, LG-3, LG-4, LG-5; wet) at Fired Machine vent to Dust Collector DC-2;
- Milling Machines (MM-4, MM-5, MM-6, MM-7, MM-8, MM-9, MM-10, MM-11; wet) at Fired Machine Department vent to Dust Collector DC-2;
- Press (P-1) at Fired Machine Department;
- Saws (S-1, S-2, S-3; wet) at Fired Machine (Mechani-cut, Peerless) Department vent to Dust Collector DC-2;
- Surface Grinders (SG-1, SG-2, SG-3, SG-4, SG-5, SG-6, SG-7; wet) at Fired Machine (Chevalier, Covell, Lodi, Brown & Sharpe) Department vent to Dust Collector DC-2;
- Universal Grinders (UG-1, UG-2, UG-3, UG-4; wet) at Fired Machine Department vent to Dust Collector DC-2;
- Waxing Hood Area (WH-1) at Fired Machine Department;
- Band Saws (BS-2, BS-3) at Maintenance Department;
- Drill Press (DP-2) Maintenance Department;
- Parts Washer (PW-1) at Maintenance Department;
- Plasma Cutter (PC-1) Maintenance Department;
- Press (P-2) Maintenance Department;
- Pipe Threader (PT-1) Maintenance Department;
- Sander (S-1) at Maintenance Department;
- Welders (W-1, W-2) at Maintenance Department;
- Chop saw (CHS-1) at QC Department;
- Inspection and Testing Area (IA-1) at QC Department;
- Laser Mike (LM-1) at QC Department;
- Optical Comparator (OC-1) at QC Department;
- Ram (R-1) at QC Department;
- Cut Off Saws (CS-1, CS-2, CS-7, CS-8, CS-11, CS-12; wet) at F&S (Dynacut, Crucible saw long, Crucible saw short) Department;
- Inspection and Testing Area (IA-3) at F&S Department;
- Packing Bench (PB-1) at F&S Department;
- Post Grinders (PG-1, PG-2; wet) at F&S (Dumore) Department;
- Stock Bins (SB-1) at F&S Department;
- Wash Areas (WA-1, WA-2) at F&S Department;
- Wrapping Area (WA-3) at F&S Department;
- Waxing Hood Area (WH-2) at F&S Department;
- Wrap Bench (WB-1) at F&S Department;
- C&C Machines (CC-2, CC-3; wet) at Green Machine Department;
- Disc Sander (DS-1) at Green Machine Department vents to Dust Collector DC-3;
- Lathes (L-1, L-2) at Green Machine Department vent to Dust Collector DC-3;
- Milling Machines (MM-1, MM-2, MM-3) at Green Machine Department vent to Dust Collector DC-3;
- Radial Arm Saw (RS-1) at Green Machine Department vents to Dust Collector DC-3;
- Table Saws (TS-1, TS-2) at Green Machine Department;
- Material Bagging Area (BA-1) at Isopress Department;
- Isopress Machine (IP-1) at Isopress Department;
- Drill Presses (DP-4, DP-5, DP-6, DP-7, DP-8) at Pilot Plant (R&D) Department;
- Loomis Press (LP-5) at Pilot Plant (R&D) Department;
- Mixers (MX-1, MX-2) at Pilot Plant (R&D) Department;
- Spray Dryer (SD-3) at Pilot Plant (R&D) Department;
- Kneader (KN-2) at Pilot Plant (R&D) Department;
- Chiller (CH-1) Pilot Plant (R&D) Department;
- Roller Mill (RM-2) at Pilot Plant (R&D) Department;
- Cut Off Saws (CS-9, CS-10; Wet, Dry) at Extrusion Department;

**SECTION H. Miscellaneous.**

- Chop saw (CHS-2) at Extrusion Department;
- Drill Press (DP-10) at Extrusion Department;
- Hydraulic Presses (HP-1, HP-2, HP-3) at Extrusion Department;
- Leak Test Machine (LM-1) at Extrusion Department;
- Loomis Presses (LP-1, LP-2, LP-3, LP-4) at Extrusion (Raw Materials - LP-1; remaining presses in Extrusion) Department;
- Mixers (M-1, M-3, M-4) at Extrusion (Raw Materials) Department;
- Roller Dryers (RD-1, RD-2, RD-3, RD-4, RD-5, RD-6, RD-7, RD-8) at Extrusion Department;
- Sandblast Machines (SM-1, SM-2) at Extrusion Department;
- Slugger (SL-1) at Extrusion (Raw Materials) Department.

Source ID 102 (Kilns & Dryers) includes:

- Natural Gas Fired Kilns (Kiln 500, Kiln 501, Kiln 504, Kiln 505, Kiln 564, Kiln 565, Kiln 543, Kiln 510, Kiln 525, Kiln 527, Kiln 511, Kiln 547, Kiln 531, Kiln 546, Kiln 528) at Kiln Shed Department;
- Natural Gas Fired Kilns (R&D) (Kiln 560, Kiln 542) at Kiln Shed Department;
- Michigan Natural Gas Dryer (MO-1) at Alumina Casting Department;
- Mold Shop Natural Gas Dryer (MD-1) at Mould Shop Department;
- Grog Natural Gas Dryer (GD-1) at Raw Materials Department;
- Electric Dryer (DO-3; Thermocraft) at F&S Department;
- Extrusion Cut Electric Dryer (DO-2; Despatch) at F&S Department;
- Electric Dryer (DO-1; Despatch) at F&S Department;
- Electric Dryer (RD-1; R&D - Gruenberg) at Pilot Plant Department;
- ISO Natural Gas Press Dryer (WD-1) at Isopress Department;
- Extrusion Natural Gas Dryer (ED-1) at Extrusion Department

Source ID 201 (Ceric Shuttle Kiln 581 (K-20)) includes Natural Gas Fired Kiln (Kiln 581; Ceric) at Extrusion Department

Source ID 202 (Bisque Kiln 582 (K-21)) includes Natural Gas Fired Kiln (Kiln 582; Bisque) at Extrusion Department

Source ID 203 (Kiln K530 (Kiln Shed)) includes Natural Gas Fired Kiln (Kiln 530) at Kiln Shed Department

Source ID 204 (Kiln K533 (Kiln Shed)) includes Natural Gas Fired Kiln (Kiln 533) at Kiln Shed Department

Source ID 205 (Sialon Mixing) includes:

- Ball Mills (BM-11, BM-12) at Sialon Mixing Department vent to Dust Collector DC-18;
- Band Saw (BS-1) at Sialon Mixing Department;
- Holding Tanks (HT-28, HT-38, HT-39) at Sialon Mixing Department;
- Holding Tanks for Spray Dryer (HT-33, HT-34, HT-35, HT-36, HT-37) at Sialon Mixing (Raw Materials) Department;
- Lathe (L-3) at Sialon Mixing (Vertical Lathe) Department vents to Dust Collector DC-17;
- Spray Dryer (SD-2) at Sialon Mixing (Raw Materials) Department vents to Dust Collector DC-5;
- Welder (W-3) at Sialon Mixing Department;
- Water Chiller (WC-2; TAV) at Sialon Mixing Department;

Source ID 206 (DO-4 Blue M and Trent Electric Ovens) includes:

- Electric Oven (DO-4; Blue M) at Sialon Department;
- Electric Oven (DO-4; Trent) at Sialon Department

Source ID 207 (Sialon Kiln AVS (Electric)) includes Sialon Electric Oven (DO-5; AVS 300) and Water Chiller (WC-1; AVS300) at Sialon Department;

Source ID 401 (EG-1 Emergency Generator 330 Hp) includes Emergency Generator 1 (EG-1) at F&S Department.

Source ID 402 (EG-2 Emergency Generator 15.1 Hp) includes Emergency Generator 2 (EG-2) at Extrusion Department.

Miscellaneous Electric Ovens and Dryer (New Units) include:

- Electric Dryer (Technofour) at Pilot Plant
- Electric Oven (TAV) at Sialon Department;

**SECTION H. Miscellaneous.**

- Electric Oven (Despatch) at R&D Department;
- Electric Oven (PyroTherm) at R&D Department;
- Electric Oven (PyroTherm) at R&D Department.



***** End of Report *****
