

# ALLEGHENY COUNTY HEALTH DEPARTMENT



**AIR QUALITY PROGRAM**  
301 39th Street, Bldg. #7  
Pittsburgh, PA 15201-1891

## *Synthetic Minor Source* *Operating Permit*

**Issued To:** Redland Brick, Inc.  
Harmar Plant  
230 Rich Hill Road  
Cheswick, PA 15024

**ACHD Permit #:** 0103a

**Date of Issuance:** September 14, 2010

**Facility:** Redland Brick, Inc.  
Harmar Plant  
230 Rich Hill Road  
Cheswick, PA 15024

**Date Amended:** September 21, 2010

**Expiration Date:** September 13, 2015

**Renewal Date:** March 14, 2015

**Issued By:**   
Sandra L. Etzel  
Air Pollution Control Mgr.

**Prepared By:** Michael Dorman  
Air Quality Engineer

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**AMENDMENTS:**

<i><b>DATE</b></i>	<i><b>SECTION(S)</b></i>
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9/21/10	Administrative Amendment correcting “Error! Reference source not found” to the correct permit condition.
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**I. CONTACT INFORMATION**

**Facility Location:** **Redland Brick, Inc.**  
Harmar Plant  
230 Rich Hill Road  
Cheswick, PA 15024

**Permittee/Owner:** **Redland Brick, Inc.**  
15718 Clear Spring Road  
PO Box 160  
Williamsport, MD 21795

**Permittee/Operator:**  
(if not Owner)

**Responsible Official:** **Wesley G. Fravel**  
**Title:** Plant Manager  
**Company:** Redland Brick, Inc.  
**Address:** Harmar Plant  
230 Rich Hill Road  
Cheswick, PA 15024  
**Telephone Number:** (412) 828-8046  
**Fax Number:** (412) 828-6604

**Facility Contact:** **Wesley G. Fravel**  
**Title:** Plant Manager  
**Telephone Number:** (412) 828-8046  
**Fax Number:** (412) 828-6604  
**E-mail Address:**

**AGENCY ADDRESSES:**

**ACHD Contact:** **Chief Engineer**  
**Allegheny County Health Department**  
Air Quality Program  
301 39th Street, Building #7  
Pittsburgh, PA 15201-1891

**II. FACILITY DESCRIPTION**

Redland Brick Incorporated (RBI) currently operates a brick manufacturing facility, identified as its Harmar Plant, at 230 Rich Hill Road in Cheswick, Pennsylvania. RBI was issued an Installation Permit (IP No. 0103-I001) on June 29, 2000 to build a new brick manufacturing facility located directly across the street from its original plant. RBI permanently shut down its original facility once full-scale operations at this new facility commenced. The facility is a synthetic minor source of sulfur dioxide (SO<sub>2</sub>) and carbon monoxide (CO) emissions, and a minor source of nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), particulate matter less than 10 microns in diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs), as defined in Section 2101.20 of Article XXI.

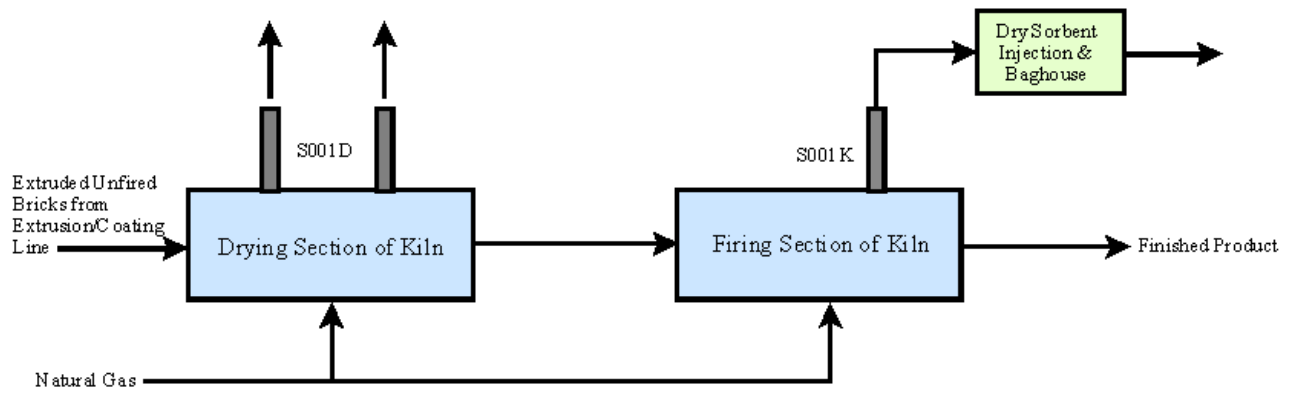
The emission units regulated by this permit are summarized in Table II-1:

**TABLE II-1: Emission Unit Identification**

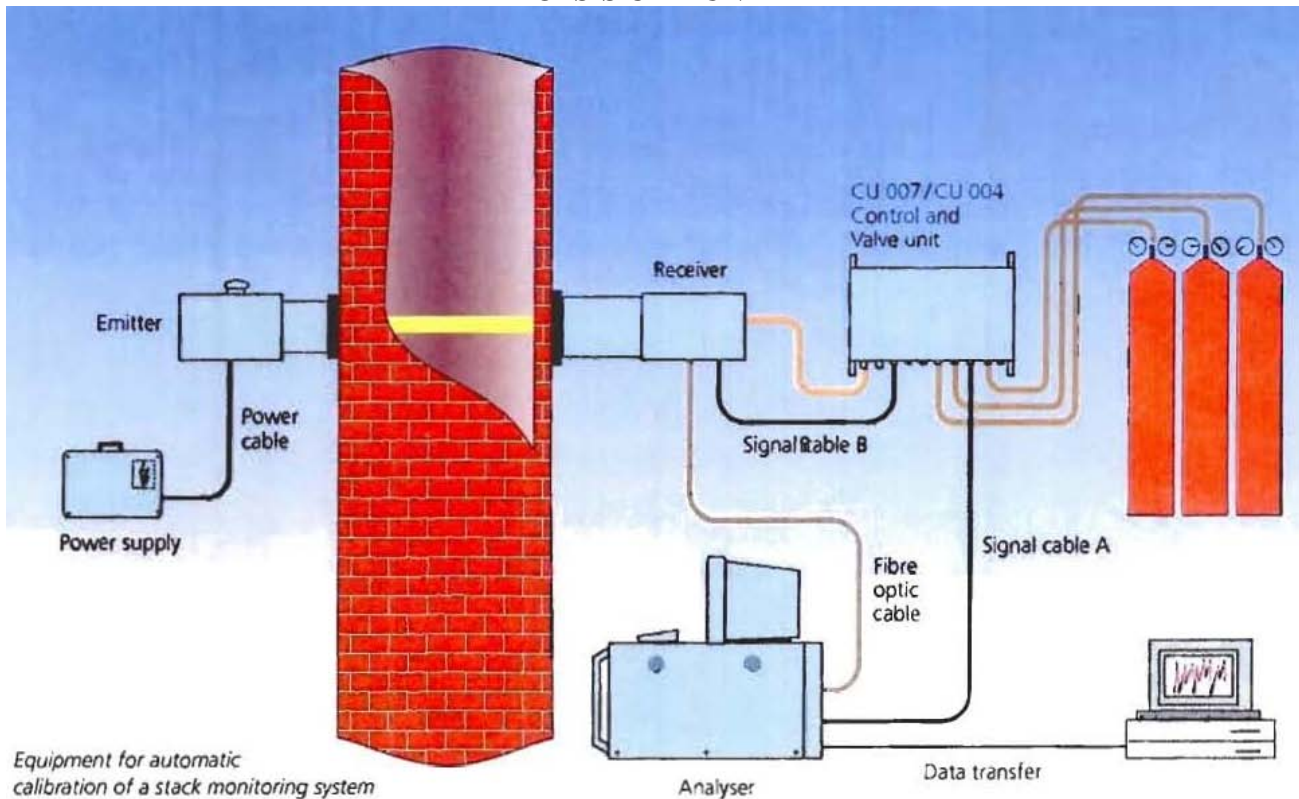
<b>I.D.</b>	<b>SOURCE DESCRIPTION</b>	<b>CONTROL DEVICE(S)</b>	<b>MAXIMUM CAPACITY</b>	<b>FUEL/RAW MATERIAL</b>	<b>STACK I.D.</b>
P001	Brick Drying and Firing Tunnel Kiln	dry sorbent injection with baghouse; CEM	17.8 tons/hr; 60,000,000 bricks/yr	ground clay and shale	S001D* S001K
P002	Crushing, Grinding, Screening	baghouse	157,500 tons/yr raw materials	clay and shale	S002
P003	Coating/Extrusion Line	baghouse	60,000,000 bricks/yr	ground clay and shale, coatings	S003
P004	Clay/Shale Mining	dust suppressants	157,500 tons/yr raw materials	clay and shale	None
P005	Raw Material Storage Shed	None	157,500 tons/yr raw materials	clay and shale	None
P006	Vehicular Traffic	scraping, sweeping and dust suppressants	0.21 miles paved roads 0.30 miles unpaved roads	loose dirt on roadways	None

\* There are two (2) stacks associated with the dryer section.

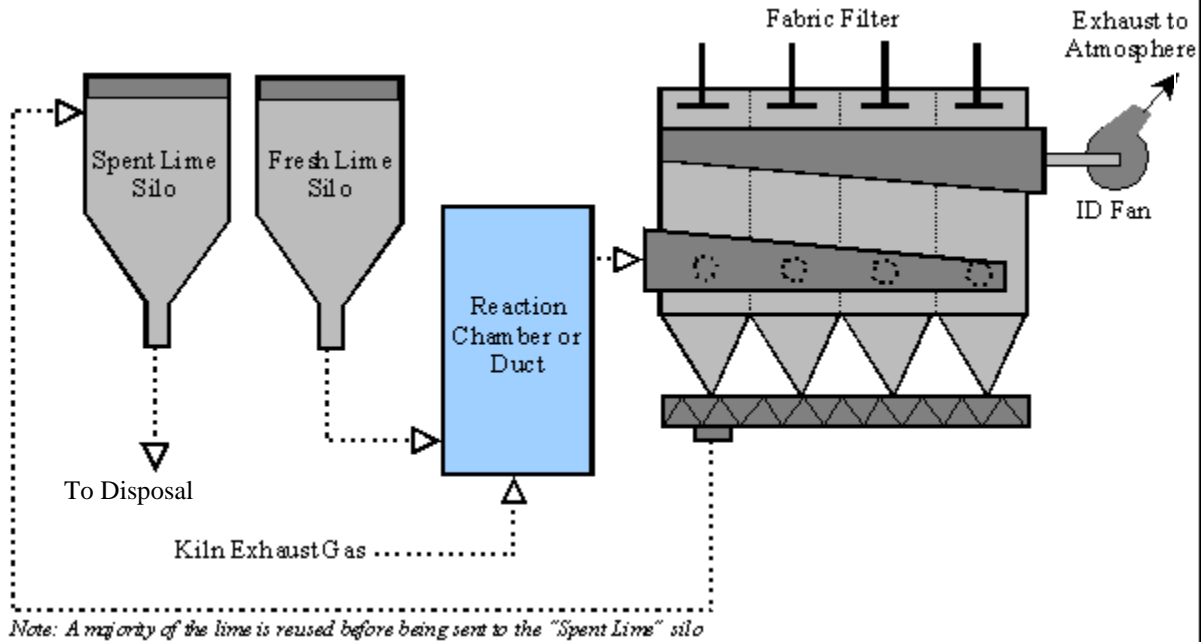
**P001 - Brick Tunnel Kiln**



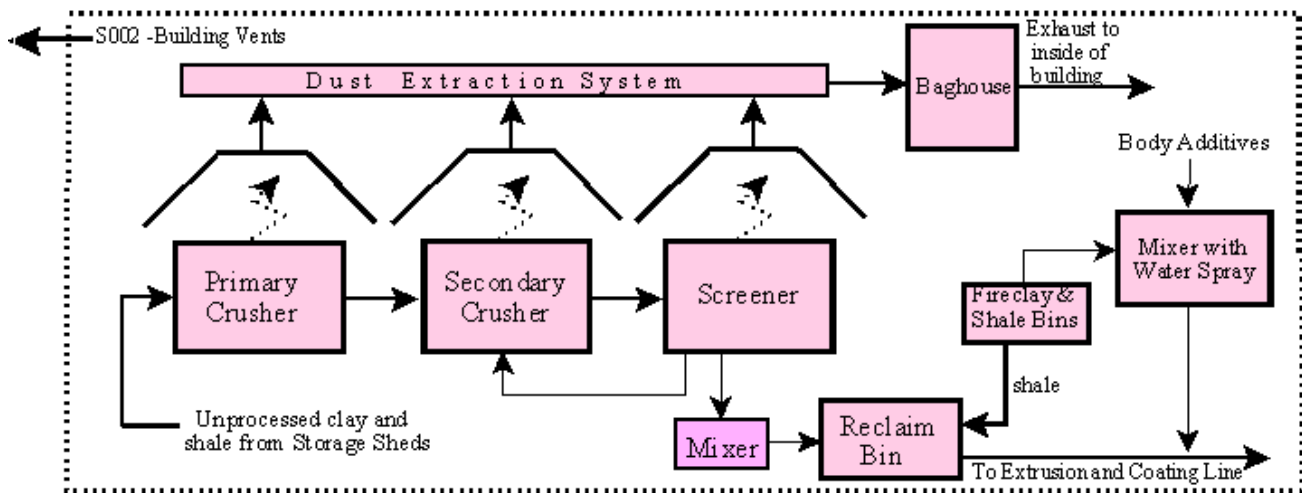
**OPSIS CEM UNIT**



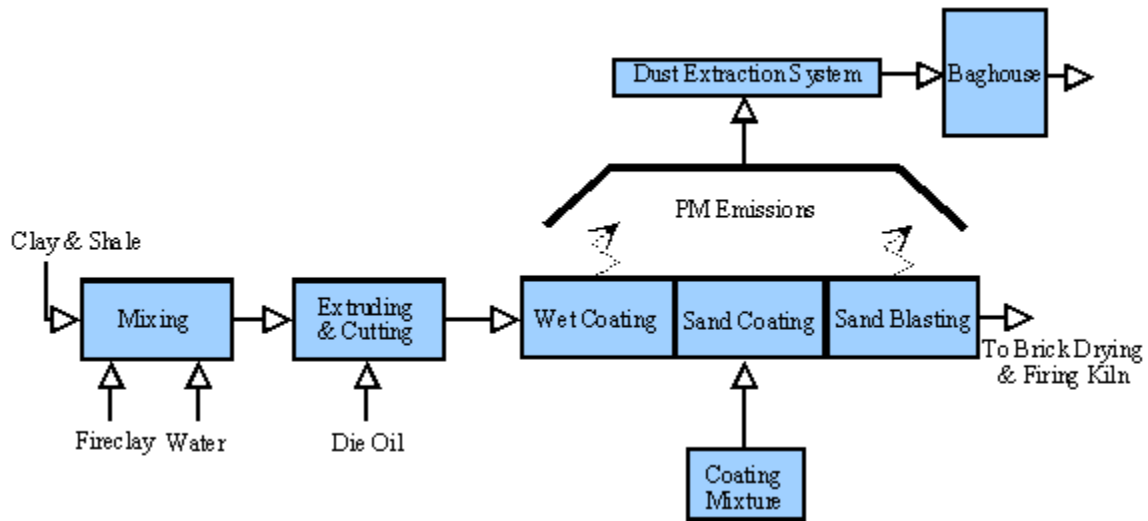
**KILN EXHAUST GAS CONTROL DEVICE – DRY INJECTION FABRIC FILTER**



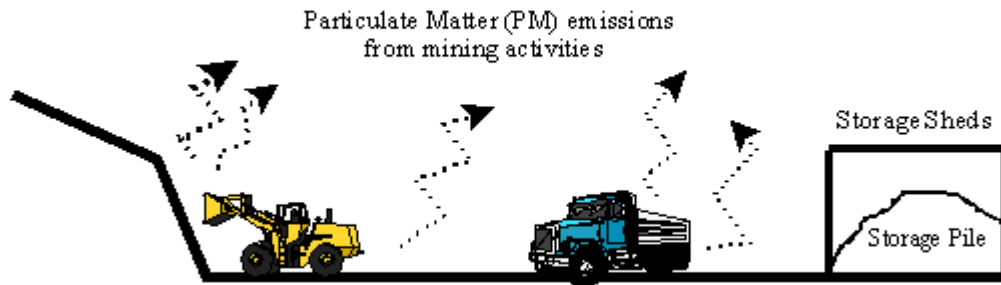
**P002 - Crushing/Grinding/Screening**



P003 – Coating/Extrusion Line



P004 - Mining Activities



### ***DECLARATION OF POLICY***

*Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.*

**The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control. The subject equipment has been conditionally approved for operation. The equipment shall be operated in conformity with the plans, specifications, conditions, and instructions which are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable Federal, State and Local laws and regulations.**

### **III. GENERAL CONDITIONS - Minor Source**

#### **1. Prohibition of Air Pollution (§2101.11)**

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

- a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
- b. Cause an exceedance of the ambient air quality standards established by Article XXI §2101.10; or
- c. May reasonably be anticipated to endanger the public health, safety, or welfare.

#### **2. Nuisances (§2101.13)**

Any violation of any requirement of this Permit shall constitute a nuisance.

#### **3. Definitions (§2101.20)**

- a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI or the applicable federal or state regulation. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.
- b. Unless specified otherwise in this permit or in the applicable regulation, the term “year” shall mean any twelve (12) consecutive months.



**4. Conditions (§2102.03.c)**

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02, for any person to fail to comply with any terms or conditions set forth in this permit.

**5. Certification (§2102.01)**

Any report or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**6. Transfers (§2102.03.e)**

This permit shall not be transferable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b. The required documentation and fee must be received by the Department at least 30 days before the intended transfer date.

**7. Term (§2103.12.e; §2103.13.a)**

- a. This permit shall remain valid for five (5) years from the date of issuance, or such other shorter period if required by the Clean Air Act, unless revoked. The terms and conditions of an 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 Article XXI Part C, and the Department through no fault of the permittee is unable to issue or deny a new permit before the expiration of the previous permit.
- b. Expiration. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with the requirements of Article XXI Part C.

**8. Need to Halt or Reduce Activity Not a Defense (§2103.12.f.2)**

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

**9. Property Rights (§2103.12.f.4)**

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

**10. Duty to Provide Information (§2103.12.f.5)**

- a. The permittee shall furnish to the Department in writing within a reasonable time, any information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of any records required to

be kept by the permit.

- b. Upon cause shown by the permittee the records, reports, or information, or a particular portion thereof, claimed by the permittee to be confidential shall be submitted to the Department in accordance with the requirements of Article XXI, §2101.07.d.4. Information submitted to the Department under a claim of confidentiality, shall be available to the US EPA and the PADEP upon request and without restriction. Upon request of the permittee the confidential information may be submitted to the USEPA and PADEP directly. Emission data or any portions of any draft, proposed, or issued permits shall not be considered confidential.

#### 11. Modification of Section 112(b) Pollutants which are VOCs or PM<sub>10</sub> (§2103.12.f.7)

Except where precluded under the Clean Air Act or federal regulations promulgated under the Clean Air Act, if this permit limits the emissions of VOCs or PM<sub>10</sub> but does not limit the emissions of any hazardous air pollutants, the mixture of hazardous air pollutants which are VOCs or PM<sub>10</sub> can be modified so long as no permit emission limitations are violated. A log of all mixtures and changes shall be kept and reported to the Department with the next report required after each change.

#### 12. Right to Access (§2103.12.h.2)

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized Department and other federal, state, county, and local government representatives to:

- a. Enter upon the permittee's premises where a permitted source is located or an emissions-related activity is conducted, or where records are or should be kept under the conditions of the permit;
- b. Have access to, copy and remove, at reasonable times, any records that must be kept under the conditions of the permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and,
- d. As authorized by either Article XXI or the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

#### 13. Certification of Compliance (§2103.12.h.5.)

- a. The permittee shall submit on an annual basis, certification of compliance with all terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification of compliance shall be made consistent with General Condition III.5 above and shall include the following information at a minimum:
  - 1) The identification of each term or condition of the permit that is the basis of the certification;
  - 2) The compliance status;
  - 3) Whether any noncompliance was continuous or intermittent;
  - 4) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the provisions of this permit; and,
  - 5) Such other facts as the Department may require to determine the compliance status of the source.
- b. All certifications of compliance must be submitted to the Department by March 1<sup>st</sup> of each year for the time period beginning January 1 of the previous year and ending December 31 of the

previous year. The first report shall be due March 1, 2011 for the time period beginning on the issuance date of this permit through December 31, 2010.

#### 14. Record Keeping Requirements (§2103.12.j.1)

- a. The permittee shall maintain records of required monitoring information that include the following:
  - 1) The date, place as defined in the permit, and time of sampling or measurements;
  - 2) The date(s) analyses were performed;
  - 3) The company or entity that performed the analyses;
  - 4) The analytical techniques or methods used;
  - 5) The results of such analyses; and,
  - 6) The operating parameters existing at the time of sampling or measurement.
- b. 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 and emission statements in Article XXI §2108.01.e. 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.

#### 15. Retention of Records (§2103.12.j.2)

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

#### 16. Reporting Requirements (§2103.12.k)

- a. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.
- b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.
- c. All reports submitted to the Department shall comply with the certification requirements of General Condition III.5 above.
- d. Semiannual reports required by this permit shall be submitted to the Department as follows:
  - 1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
  - 2) One semiannual report is due by January 31 of each year for the time period beginning July 1 and ending December 31.
  - 3) The first semiannual report shall be due January 31, 2011 for the time period beginning on the issuance date of this permit through December 31, 2010.

**17. Severability Requirement (§2103.12.l)**

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.

**18. Existing Source Reactivations (§2103.13.d)**

The permittee shall not reactivate any source that has been out of operation or production for a period of one year or more unless the permittee has submitted a reactivation plan request to, and received a written reactivation plan approval from, the Department. Existing source reactivations shall meet all requirements of Article XXI §2103.13.d.

**19. Administrative Permit Amendment Procedures (§2103.14.b)**

An administrative permit amendment may be made consistent with the procedures of Article XXI §2103.14.b and §2103.24.b. Administrative permit amendments are not authorized for any amendment precluded by the Clean Air Act or the regulations there under.

**20. Revisions and Minor Permit Modification Procedures (§2103.14.c)**

Sources may apply for revisions and minor permit modifications on an expedited basis in accordance with Article XXI §2103.14.c and §2103.24.a.

**21. Significant Permit Modifications (§2103.14.d)**

Significant permit modifications shall meet all requirements of the applicable subparts of Article XXI, Part C, including those for applications, fees, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal. The approval of a significant permit modification, if the entire permit has been reopened for review, shall commence a new full five (5) year permit term. The Department shall take final action on all such permits within nine (9) months following receipt of a complete application.

**22. Duty to Comply (§2103.12.f.1)**

The permittee shall comply with all permit conditions and all other applicable requirements at all times. Any permit noncompliance constitutes a violation of the Clean Air Act, the Air Pollution Control Act, and Article XXI and is grounds for any and all enforcement action, including, but not limited to, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

**23. Renewals (§2103.13.b.)**

Renewal of this permit is subject to the same fees and procedural requirements, including those for public participation and affected State and EPA review that apply to initial permit issuance. The application for renewal shall be submitted at least six (6) months but not more than eighteen (18) months prior to expiration of this permit. The application shall also include submission of a supplemental compliance review as required by Article XXI §2102.01.

**24. Reopening for Cause (§2103.15; §2103.12.f.3)**

- a. This permit shall be reopened and reissued under any of the following circumstances:
- 1) Additional requirements under the Clean Air Act become applicable to a major source with a remaining permit term of three (3) or more years. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended solely due to the failure of the Department to act on a permit renewal application in a timely fashion.
  - 2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.
  - 3) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
  - 4) The Administrator or the Department determines that this permit must be reissued or revoked to assure compliance with the applicable requirements.
- b. This permit may be modified; revoked, reopened, and reissued; or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in this permit.

**25. Annual Operating Permit Administration Fee (§2103.40)**

In each year during the term of this permit, on or before the last day of the month in which the application for this permit was submitted, the permittee shall submit to the Department, in addition to any other applicable administration fees, an Annual Operating Permit Administration Fee in accordance with §2103.40. by check or money order payable to the "Allegheny County Air Pollution Control Fund" in the amount specified in the fee schedule applicable at that time.

**26. Other Requirements not Affected (§2104.08 and §2105.02)**

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable Federal, State, or County statute, rule, regulation, or the like, including but not limited to the odor emission standards under Article XXI §2104.04, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology (GACT) standards now or hereafter established by the EPA, and any applicable requirements of BACT or LAER as provided by Article XXI, any condition contained in any applicable Installation or Operating Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Article XXI Part I.

**27. Termination of Operation (§2108.01.a)**

In the event that operation of any source of air contaminants is permanently terminated, the person responsible for such source shall so report, in writing, to the Department within 60 days of such termination.

**28. Tests by the Department (§2108.02.d)**

Notwithstanding any tests conducted pursuant to Article XXI §2108.02, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.

**29. Other Rights and Remedies Preserved (§2109.02.b)**

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit.

**30. Enforcement and Emergency Orders (§2109.03, §2109.05)**

- a. The person responsible for this source shall be subject to any and all enforcement and emergency orders issued to it by the Department in accordance with Article XXI §2109.03, §2109.04 and §2109.05.
- b. Upon request, any person aggrieved by an Enforcement Order or Emergency Order shall be granted a hearing as provided by Article XXI §2109.03.d; provided however, that an Emergency Order shall continue in full force and effect notwithstanding the pendency of any such appeal.
- c. Failure to comply with an Enforcement Order or immediately comply with an Emergency Order shall be a violation of this permit thus giving rise to the remedies provided by Article XXI §2109.02.

**31. Penalties, Fines, and Interest (§2109.07.a)**

A source that fails to pay any fee required under this permit when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have this permit revoked for failure to pay any fee required.

**32. Appeals (§2109.10)**

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI or any unsuccessful petitioner to the Administrator under Article XXI Part C, Subpart 2, shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

**33. Circumvention (§2101.14)**

For purposes of determining compliance with the provisions of this permit and Article XXI, no credit shall be given to any person for any device or technique, including but not limited to the operation of any source with unnecessary amounts of air, the combining of separate sources except as specifically permitted by Article XXI and the Department, the use of stacks exceeding Good Engineering Practice height as defined by regulations promulgated by the US EPA at 40 CFR §§51.100 and 51.110 and Subpart I, and other dispersion techniques, which without reducing the amount of air contaminants

emitted, conceals or dilutes an emission of air contaminants which would otherwise violate the provisions of this Article; except that, for purposes of determining compliance with Article §2104.04 concerning odors, credit for such devices or techniques, except for the use of a masking agent, may be given.

**34. Duty to Supplement and Correct Relevant Facts (§2103.12.d.2)**

- a. The permittee shall provide additional information as necessary to address requirements that become applicable to the source after the date it files a complete application but prior to the Department taking action on the permit application.
- b. The permittee shall provide supplementary facts or corrected information upon becoming aware that incorrect information has been submitted or relevant facts were not submitted.
- c. Except as otherwise required by this permit and Article XXI, the Clean Air Act, or the regulations thereunder, the permittee shall submit additional information as necessary to address changes occurring at the source after the date it files a complete application but prior to the Department taking action on the permit application.
- d. The applicant shall submit information requested by the Department which is reasonably necessary to evaluate the permit application.

**35. Effect (§2102.03.g.)**

- a. Except as specifically otherwise provided under Article XXI, Part C, issuance of a permit pursuant to Article XXI Part B or Part C shall not in any manner relieve any person of the duty to fully comply with the requirements of this permit, Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of this permit or Article XXI, whether occurring before or after the issuance of such permit. Further, except as specifically otherwise provided under Article XXI Part C the issuance of a permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of this permit or Article XXI.

**36. Installation Permits (§2102.04.a.1.)**

It shall be a violation of this permit giving rise to the remedies set forth in Article XXI Part I for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment which would require an installation permit or permit modification in accordance with Article XXI Part B or Part C.



#### IV. SITE LEVEL TERMS AND CONDITIONS

**1. Reporting of Upset Conditions (§2103.12.k.2)**

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

**2. Visible Emissions (§2104.01.a)**

Except as provided for by Article XXI §2108.01.d pertaining to a cold start, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

- a. Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
- b. Equal or exceed an opacity of 60% at any time.

**3. Odor Emissions (§2104.04) (County-only enforceable)**

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

**4. Materials Handling (§2104.05)**

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

**5. Operation and Maintenance (§2105.03)**

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistently with good air pollution control practice.

**6. Open Burning (§2105.50)**

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

**7. Shutdown of Control Equipment (§2108.01.b)**

- a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s)



served by such air pollution control equipment is also shut down at all times that such equipment is shut down.

- b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.
- c. The prior report required by Site Level Condition IV.7.a above shall include:
  - 1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
  - 2) The reasons for the shutdown;
  - 3) The expected length of time that the equipment will be out of service;
  - 4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
  - 5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
  - 6) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and
  - 7) Such other information as may be required by the Department.

## 8. Breakdowns (§2108.01.c)

- a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.
- b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:
  - 1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected;
  - 2) The nature and probable cause of the breakdown;
  - 3) The expected length of time that the equipment will be inoperable or that the emissions will continue;
  - 4) Identification of the specific material(s) which are being, or are likely to be emitted, together with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality;
  - 5) The estimated quantity of each material being or likely to be emitted;
  - 6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule; and,

- 7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.
- c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.
- d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to Paragraphs IV.8.a above and IV.8.b above.
- e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.
- f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.

#### **9. Cold Start (§2108.01.d)**

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be terminated by the Department at any time by written notice to the applicant.

#### **10. Monitoring of Malodorous Matter Beyond Facility Boundaries (§2104.04)**

The permittee shall take all reasonable action as may be necessary to prevent malodorous matter from becoming perceptible beyond facility boundaries. Further, the permittee shall perform such observations as may be deemed necessary along facility boundaries to insure that malodorous matter beyond the facility boundary, in accordance with Article XXI §2107.13, is not perceptible and record all findings and corrective action measures taken.

#### **11. Emissions Inventory Statements (§2108.01.e)**

- a. Emissions inventory statements in accordance with §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are

required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.

- b. The failure to submit any report or update within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

## 12. Orders (§2108.01.f)

In addition to meeting the requirements of General Condition III.27 above and Site Level Conditions IV.7 through IV.11, inclusive, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

## 13. Violations (§2108.01.g)

The failure to submit any report or update thereof required by General Condition III.27 above and Site Level Conditions IV.7 through IV.12 above, inclusive, within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

## 14. Emissions Testing (§2108.02)

- a. **Orders.** The person responsible for any source shall, upon order by the Department, conduct, or cause to be conducted, such emissions tests as specified by the Department within such reasonable time as is specified by the Department. Test results shall be submitted in writing to the Department within 20 days after completion of the tests, unless a different period is specified in the Department's order. Emissions testing shall comply with all applicable requirements of Article XXI §2108.02.e.
- b. **Tests by the Department.** Notwithstanding any tests conducted pursuant to this permit, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.
- c. **Testing Requirements.** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.

- d. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.
- e. **Violations:** The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

**15. Abrasive Blasting (§2105.51)**

- a. Except where such blasting is a part of a process requiring an operating permit, no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.
- b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

**16. Asbestos Abatement (§2105.62, §2105.63)**

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

**17. Fugitive Emissions (§2105.49)**

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

- a. The use of asphalt, oil, water, or suitable chemicals for dust control;
- b. The paving and maintenance of roadways, parking lots and the like;
- c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
- d. The adoption of work or other practices to minimize emissions;
- e. Enclosure of the source; and
- f. The proper hooding, venting, and collection of fugitive emissions.

**18. Curtailment Plans (§2106.02)**

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

**19. New Source Performance Standards (§2105.05)**

- a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.
- b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

**20. Synthetic Minor Requirements (§2103.20.b.4)**

- a. The total facility-wide emissions of carbon monoxide (CO) during any consecutive 12-month period shall be limited to 98.50 tons.
- b. The total facility-wide emissions of sulfur dioxide (SO<sub>2</sub>) during any consecutive 12-month period shall be limited to 71.90 tons.

## V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

### A. Process P001: Tunnel Kiln and Dryer

<b>Process Description:</b>	Brick Firing Tunnel Kiln with Dryer
<b>Manufacturers:</b>	Ceric (kiln/dryer); Proceadair Scrubber (baghouse)
<b>Emission Controls:</b>	Dry Injection Scrubber with Baghouse
<b>Facility ID:</b>	S001K/S001D (1 kiln stack and 2 dryer stacks)
<b>Max. Heat Inputs:</b>	20.0 MMBTU/hr (preheat section + dryer); 25.0 MMBTU/hr (Total)
<b>Fuel:</b>	Natural Gas only
<b>Max. Throughput:</b>	17.8 tons/hr; 60,000,000 standard brick equivalents/yr
<b>Raw Materials:</b>	Kiln: Ground Clay and Shale; Controls: Hydrated Lime

#### 1. Restrictions:

- a. The permittee shall properly maintain and operate the tunnel kiln and dryer process, and associated control devices, identified as P001, at all times according to the following conditions:
  - 1) The emissions of hydrogen fluoride, hydrogen chloride, and sulfur oxides from the kiln exhaust shall be controlled by a dry scrubber (hydrated lime) system. (§2102.04.b.6)
  - 2) The dry sorbent injection control device identified in Condition V.A.1.a.1) above shall achieve a minimum removal efficiency of 95% for hydrogen fluoride, 95% for hydrogen chloride, and 75% for sulfur dioxide. (§2102.04.b.6)
  - 3) The feed rate of hydrated lime to the dry scrubber system identified in Condition V.A.1.a.1) above shall be maintained at a level such that the emissions of hydrogen fluoride, hydrogen chloride, and sulfur oxides will not exceed the limitations identified in Table V.A.1 below at all times. (§2102.04.b.6)
  - 4) The particulate matter concentration contained in the exhaust of the baghouse dust collector identified in Condition V.A.1.a.1) above shall not exceed 0.01 grains per dry standard cubic foot. (§2102.04.b.6)
  - 5) During periods where the CEM required by Condition a below is not operating properly or is shutdown, the lime injection feed rate shall be set at the level during the most recent stack test that demonstrated compliance with the emission limitations of sulfur oxides, hydrogen chloride, and hydrogen fluoride. (§2102.04.b.6)
- b. Use of the dryer booster burners shall be limited to periods of start-up of the kiln and shall not exceed 438 hours during any consecutive 12-month period (§2103.20.b.4)
- c. The total of all bricks manufactured shall not exceed 126,000 tons/yr (on a “fired” or “dry” basis) which includes all bricks that are not sold, or are broken. (§2103.20.b.4)

- d. The emission of air contaminants from the kiln shall not exceed the following limitations (§2102.04.b.6; §2103.20.b.4):

**TABLE V-A-1: - Kiln Emission Limitations**

EMISSION POINT	PROCESS	POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
S001K	P001	PM	2.29	9.92
		PM <sub>10</sub>	2.29	9.92
		PM <sub>2.5</sub>	2.29	9.92
		SO <sub>2</sub>	31.52	71.9
		CO	26.0	96.0
		NO <sub>x</sub>	8.9	39.0
		VOCs	0.49	2.15
		HF	0.41**	1.8
		HCl	0.22**	0.96
		Total HAPs Metals	0.016	0.07
		Total HAPs	0.646	2.83

\* A year is defined as any consecutive 12-month period.

\*\* The hourly emission rate is a pounds per hour limit based on operating hours during a calendar day average

- e. The combined emissions of air contaminants from both stacks of the dryer section shall not exceed the following limitations (§2102.04.b.6; §2103.20.b.4):

**Table V.A.2 - Dryer Emission Limitations**

EMISSION POINT	PROCESS	POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)*
S001D	P001	PM	1.58	6.92
		PM <sub>10</sub>	1.58	6.92
		PM <sub>2.5</sub>	1.58	6.92
		CO	6.35	2.5
		NO <sub>x</sub>	1.02	4.47
		VOCs	0.61	2.67

\* A year is defined as any consecutive 12-month period.



**2. Testing Requirements:**

- a. Upon Department request, the permittee shall perform emissions testing for hydrogen fluoride, hydrogen chloride, and sulfur oxides at the inlet of the dry scrubber system's injection/reactor system and at the outlet of the dry scrubber's fabric dust collector, to demonstrate attainment of the removal efficiencies required by Condition V.A.1.a.2) above and determine the outlet mass emission rate (in pounds per hour) of each of the aforementioned air contaminants. (§2102.04.b.6; §2108.02)
- b. The permittee shall perform particulate matter, carbon monoxide, volatile organic compounds, and nitrogen oxides testing, within the time frame specified in Condition V.A.2.a above, at the outlet of the dry scrubber system's fabric collector in order to determine the mass emission rates (in pounds per hour) of each air contaminant. (§2102.04.b.6; §2108.02)
- c. The emissions testing shall be performed while the kiln is operating at its maximum routine operating conditions or such other conditions as are specified by the Department and while using raw materials that contain the highest concentrations of fluorine, chlorine and sulfur in order to demonstrate compliance with the hourly emission rates in Table V.A.1. (§2102.04.b.6; §2108.02)
- d. The permittee shall determine all control equipment parameters to be monitored on a continuous basis during the testing required by Conditions V.A.2.a above and V.A.2.e below. (§2102.04.b.6; §2108.02)
- e. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above entitled "Emissions Testing" and Article XXI §2108.02. (§2103.12.h.1; §2103.20.b.4; §2108.02)

**3. Monitoring Requirements:**

- a. The permittee shall install, operate and maintain a continuous emission monitoring system on the kiln process stack to continuously monitor and record the hourly average and 12-monthly rolling total emissions of sulfur oxides, hydrogen chloride, hydrogen fluoride, carbon monoxide, and nitrogen oxides. Each CEM shall consist of all the equipment used to acquire and record data and includes any sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software. (§2102.04.e; §2108.03.c.)
- b. The CEM system required by Condition a above shall meet the requirements of §2108.03.c, d., and e and 25 Pa Code Chapter 139.101. (§2102.04.e; §2108.03.c.)
- c. The permittee shall develop and implement a Quality Assurance (QA) and Quality Control (QC) program in accordance with 40 CFR Part 60, Appendix F Procedure 1, "Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination." The QA/QC plan shall be submitted to the Department sixty (60) days prior to start-up of the CEM and shall include written procedures that describe in detail complete, step-by-step procedures and operations for the following activities (§2102.04.e; §2108.03.e):
  - 1) Calibration of the CEM;
  - 2) CD determination and adjustment of the CEM;



- 3) Preventative maintenance of the CEM (including spare parts inventory);
  - 4) Data recording, calculations, and reporting;
  - 5) Accuracy audit procedures including sampling and analysis methods; and
  - 6) Program of corrective action for a malfunctioning CEM.
- d. The permittee shall revise the QA/QC plan as needed and submit the revised plan to the Department for approval prior to its implementation.
- e. No continuous emission monitoring system shall be considered to meet the requirements of this permit unless such system has been approved by the Department in writing. At least 45 days prior to installing any such system, or at such other times as is specified in an applicable order or permit condition, the person responsible for the affected source shall make written application to the Department for the approval of such system, which application shall include a thorough description of the system, the location where such system will be installed, a program for periodic calibration, zero and span drift checks and other quality assurance procedures and all other information needed by the Department to evaluate such system. The Department shall make its evaluation in accordance with all relevant guidelines, including the performance specifications and other requirements of Appendix P of 40 CFR Part 51 and Appendix B of 40 CFR Part 60, including all modifications to such appendices as may hereafter be made by the EPA. (§2108.03.e)
- f. As part of the QC Plan, the permittee shall also submit a plan for Department approval within sixty (60) days prior to start-up of the CEM that addresses the calculation of emissions when the monitor is not operating properly or is down. (§2108.03.e)
- g. The permittee shall perform an initial CEM certification relative accuracy test audit (RATA) within 120 days of installation of the CEM for SO<sub>2</sub>, CO, HCl, and HF in accordance with the procedures outlined in 40 CFR Part 60, Appendix F, Section 5.1.1. At least once every eight calendar quarters thereafter the permittee shall perform a RATA for SO<sub>2</sub> and CO, and at least once every 5 years the permittee shall perform a RATA for HCl and HF. (§2108.03.e)
- h. The permittee shall perform an audit of the CEM once each calendar quarter using either a cylinder gas audit (CGA) or a relative accuracy audit (RAA) in accordance with the procedures outlined in 40 CFR Part 60, Appendix F Procedure 1. Should the CEM not pass an RAA or CGA on the first attempt for two consecutive quarters, the permittee shall complete a RATA within sixty (60) days of the second quarter's failed test in accordance with 40 CFR 60, Appendix F, Sections 5.1.2, 5.1.3. (§2102.04.e)
- i. Within thirty (30) days of installation of the CEM, the permittee shall perform daily zero/span calibration drift checks on each monitored pollutant and flow rate of the CEM for sixty (60) consecutive days. If on the first attempt the results of each daily zero/span calibration drift (CD) check are less than the criteria for excessive CD as specified in 40 CFR Part 60, Appendix F, Section 4.3, the permittee shall begin performing zero/span CD checks on a weekly basis. If the CEM fails any weekly CD check, i.e., 2X over the limit as per Section 4.3, the permittee shall perform daily zero/span CD checks until such time as the results of each daily zero/span (CD) check are less than the criteria for excessive CD as specified in 40 CFR Part 60, Appendix F, Section 4.3. (§2102.04.e)
- j. Failure to install and operate any continuous emissions monitoring system required by this permit, within the time specified, the failure to retain any data or submit any report so required, or

the knowing retention or reporting of false data shall be a violation of Article XXI and this permit giving rise to the remedies provided by §2109.02. (§2108.03.f.)

- j. The permittee shall monitor and record the parameters indicated below for the baghouse: (§2102.04.b.6; §2102.04.e)
- 1) Once per week recording of the differential pressure drop across the baghouse. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly operated, calibrated and maintained according to manufacturer's specifications;
  - 2) Recording of the baghouse fan motor amperage once per week to insure proper fan operation; and,
  - 3) Visual inspection of the exhaust system and baghouse weekly to insure the equipment appear to be operating properly and that the integrity of the control equipment exhaust systems are not compromised by damage, malfunction or deterioration. Immediate repairs shall be made to correct obvious failures or deficiencies.
- k. The permittee shall monitor and record the lime injection rate of the scrubber, in pounds per hour, on a continuous basis. In addition, visual inspection of the scrubber system on a weekly basis to insure the equipment appears to be operating properly and that the integrity of the system is not compromised by damage, malfunction or deterioration. Immediate repairs shall be made to correct obvious failures or deficiencies. (§2102.04.e)
- l. The permittee shall inspect all process equipment on a weekly basis to insure compliance with the operating specifications of Condition V.A.1.a above. Any deviations from the subject specifications shall be corrected as soon as possible. (§2102.04.e)

#### 4. Record Keeping Requirements:

- a. The permittee shall retain records of all monitoring data required by this permit and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application, including all calibration and maintenance records and all original strip-chart recordings and/or data from an equivalent recording device, all digital data records for continuous monitoring instrumentation, and copies of all reports required by this permit. (§2103.12.j; §2108.03.d)
- b. The QC program plan as required by Condition c above and log book dedicated to the CEM must be kept on-site and be available for Department inspection at all times. (§2103.12.j.)
- c. The permittee shall maintain records of the amount of raw materials processed on a monthly, and 12-month rolling total basis. These records shall also contain the material type and name(s) of the suppliers of each raw material, and quarterly material composition analyses identifying the percentage (by weight) of the lead, fluorine, chlorine and sulfur contained in the clay and/or shale used to manufacture brick for each separate source of clay and/or shale. (§2103.12.j.)
- d. The permittee shall maintain records of all emissions test results as required in Condition V.A.2 above. (§2103.12.j.)
- e. The permittee shall maintain records of the number and weight (in tons) of each type of brick

manufactured on a daily, monthly, and 12-month rolling total basis. (§2103.12.j.)

- f. The operating hours of the kiln and dryer booster burners shall be recorded on a daily, monthly and 12-month rolling total basis. (§2103.12.j.)

#### 5. Reporting Requirements:

- a. The permittee shall report the results of all testing as required in Condition V.A.2 above in accordance with Condition III.16 above. (§2103.12.k.; §2108.02)
- b. The permittee shall report the total monthly and 12-month rolling total emissions of sulfur oxides, carbon monoxide and nitrogen oxides in accordance with Condition III.16 above. (§2103.12.k.)
- c. The permittee shall submit to the Department a written report of the CEM data at six-month intervals in accordance with Condition III.16 above Unless otherwise specified by the Department, such report shall include at a minimum: (§2108.03.d)
- 1) An identification of each instance during the reporting period during which emissions exceeded the applicable emission limitations established by this permit and an identification of the reasons, if known, for such exceedance. The averaging period, if any, used for making such identification shall correspond to the averaging period, if any, specified in the applicable emission limitation established by this permit.
  - 2) An identification of each period during which the continuous emission monitoring system was inoperative, except for zero and span drift checks, the reasons therefore, and the nature of repairs or adjustments performed or to be performed.
  - 3) An identification of calibrations, zero and span drift checks, and other quality assurance procedures.
  - 4) Information required to be reported by 25 Pa Code Chapter 139.101.
- d. The permittee shall submit a summary of all corrective actions taken when the CEM was determined out-of-control as described in 40 CFR Part 60, Appendix F, Sections 4 and 5, in accordance with Condition III.16 above. (§2103.12.k.)
- e. The permittee shall submit a production report that includes monthly summaries of fuel usage, number and type of bricks produced, and operating hours, in accordance with Condition III.16 above. (§2103.12.k.)

#### 6. Operations and Maintenance:

None except as provided elsewhere.

#### 7. Additional Requirements:

The permittee shall notify the Department at least ten (10) days in advance of:

- a. Installation of any generators that are to be used on-site to provide lighting or any other electrical power requirement. (§2102.04.e)
- b. Notification of the above items, in no way relieves the permittee of the obligation to obtain an installation permit or operating permit modification when required. (§2102.04.a)

**B. Process P002: Crushing/Grinding/Screening**

**Process Description:** Crushing, Grinding and Screening of Clay and Shale  
**Emission Controls:** Baghouse  
**Facility ID:** P002  
**Max. Design Rate:** 200 tons/hr of Clay and Shale  
**Capacity:** 157,500 tons/yr  
**Raw Materials:** Clay and Shale

Process P002, identified as “Crushing/Grinding/Screening” will consist of the following number and type of equipment (or equivalents):

- (1) Stedman Model 4860 “impactor” style Primary Crusher
- (1) Stedman Model 4260 “impactor” style Secondary Crusher
- (2) Mogensen dustproof, totally-enclosed, multi deck screeners
- (2) Handle MDG 1015a double shaft screen mixers
- (2) Handle EKBL longitudinal reclaimer excavators
- (1) Hellmich bag-style dust collector
- (3) Handle BKN 1206c proportioning box feeders

The grinding operations will also consist of the following conveyor belts (width x length):

- |                                 |                                 |
|---------------------------------|---------------------------------|
| 48" x 68' 11" VHV belt conveyor | 36" x 94' 1" VHV belt conveyor  |
| 60" x 8' 3" VHV belt conveyor   | 36" x 53' 10" VHV belt conveyor |
| 48" x 47' 7" VHV belt conveyor  | 30" x 6' 7" VHV belt conveyor   |
| 30" x 65' 8" VHV belt conveyor  | 30" x 83' VHV belt conveyor     |
| 30" x 11' 6" VHV belt conveyor  | 30" x 123' 3" VHV belt conveyor |
| 24" x 35' 1" VHV belt conveyor  | 30" x 90' 11" VHV belt conveyor |
| 24" x 49' 11" VHV belt conveyor | 30" x 104' VHV belt conveyor    |
| 24" x 13' 5" VHV belt conveyor  | 42' x 60' 9" VHV belt conveyor  |
| 24" x 42' VHV belt conveyor     | 30" x 35' 1" VHV belt conveyor  |
| 30" x 55' 9" VHV belt conveyor  | 30" x 58' 5" VHV belt conveyor  |
| 30" x 68' 11" VHV belt conveyor | 30" x 147' 8" VHV belt conveyor |
| 30" x 23' VHV belt conveyor     |                                 |

**1. Restrictions:**

- a. **Installation Permits, Standards for Issuance, NSPS:**

The sources and equipment identified in Process P002 are subject to Subpart OOO of the Federal Standards of Performance for New Stationary Sources, “Nonmetallic Mineral Processing Plants,” 40 CFR 60.670 through 60.676. The permittee shall comply with all applicable requirements of this Subpart as well as any other applicable Subpart of the NSPS, including all record keeping and reporting requirements. Pursuant to 40 CFR 60.4, the submission of all requests, reports, applications, submittals and other correspondence required by the Standards must be made to both the Department and the Environmental Protection Agency. (§2102.04.b.8)

- b. NSPS, Standard for Particulate Matter, [40 CFR 60.672]

The permittee shall comply with the provisions of 40 CFR 60.672(e)(1) and (2) that applies to transfer points and/or conveyor belts enclosed in a building: There shall be no visible emissions from any building that encloses the Crushing/Grinding/Screening process except from any building “vent,” as defined in 40 CFR 60.671, and any such emissions shall not exceed 7% opacity, or contain particulate matter in excess of 0.05 g/dscm, as per 40 CFR 60.672(a). (§2103.12.a)

- c. The emission of air contaminants from the Crushing/Grinding/Screening operations shall not exceed the following hourly and annual limits identified in Table V.B.1. (§2103.12.a; §2103.12.h)

**TABLE V-B-1: - Emission Limitations: Process P002**

EMISSION POINT	PROCESS	POLLUTANT	HOURLY EMISSION LIMIT (lb/hr) <sup>2</sup>	LONG-TERM EMISSION LIMIT (tons per year <sup>1</sup> )
S002	P002: Crushing, Grinding, Screening	PM	0.26	0.49
		PM <sub>10</sub>	0.13	0.25
		PM <sub>2.5</sub>	0.13	0.25

<sup>1</sup> A year is defined as any consecutive 12-month period

<sup>2</sup> Hourly emission rates are based on the maximum design rate of 200 tons/hr.

**2. Testing Requirements, New and Modified Sources:**

- a. Upon Department request, the permittee shall perform emissions testing for particulate matter emissions from the building in order to ensure compliance with the emission limitations outlined in Condition 1 above, and as required by 40 CFR 60.8 of the Federal Standards of Performance for New Stationary Sources, “Performance Tests.” (§2108.02)
- b. The emissions testing shall be performed while the grinders, crushers, mixers and associated equipment are operating at the maximum production rate, and with the dust collection system and baghouse control devices in normal operation. (§2108.02)
- c. The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above entitled “Emissions Testing” and Article XXI §2108.02. (§2103.12.h.1; §2103.20.b.4; §2108.02)

**3. Monitoring Requirements:**

The permittee shall inspect all process equipment on a weekly basis to insure compliance with Condition 1 above. Any deviations from the subject specifications shall be corrected as soon as possible. (§2102.04.e.)

**4. Record Keeping Requirements:**

- a. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application, including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (§2103.12.j)
- b. The permittee shall maintain records of the amount of raw materials (in tons) processed on a daily, monthly, and 12-month rolling total basis. These records shall also contain the material type and name(s) of the suppliers of each raw material. (§2103.12.j)
- c. The operating hours from each process shall be recorded on a daily, monthly and 12-month rolling total basis. (§2103.12.j)
- d. The permittee shall comply with all applicable record keeping provisions as outlined in 40 CFR 60.676. (§2103.12.j)

**5. Reporting Requirements:**

- a. The permittee shall report the results of all testing as required in Condition V.B.2 above in accordance with Condition III.16 above. (§2103.12.k)
- b. The permittee shall report the amount of raw materials (in tons) processed on a daily, monthly, and 12-month rolling total basis. This record shall also contain the material type and name(s) of the suppliers of each raw material. (§2103.12.k)
- c. The permittee shall report the operating hours from each process on a daily, monthly and 12-month rolling total basis. (§2103.12.k)
- d. A semi-annual report shall be submitted to the Department in compliance with General Condition III.16 above. (§2103.12.k)

**6. Work Practice Standards:**

None except as provided elsewhere.

**7. Additional Requirements:**

None except as provided elsewhere.

**C. Process P003: Extrusion/Coating Line**

**Process Description:** Coating and Extrusion Line  
**Control Device:** Baghouse in Enclosed Building  
**Facility ID:** P003  
**Max. Production Rate:** 200 tons/hr of raw materials  
**Capacity:** 60,000,000 bricks/yr  
**Raw Materials:** Clay and Shale, Die Oil, Coating

Process P003, identified as the “Extrusion/Coating Line,” will consist of the following components (or equivalents):

- (1) Handle PZVMGS combined de-airing extruder
- (1) Ceric automated robotic bricking setting machine
- (1) Ceric automated brick unloading machine

**1. Restrictions:**

- a. The permittee shall operate Process P003 in accordance with §2104.05 and §2105.49 in order to minimize the potential for fugitive emissions from material handling. (§2104.05; §2105.49)
- b. The amount of die oil used in Process P003 shall not exceed 5,000 gallons in any consecutive 12-month period. In addition, the VOC content of the oil shall not exceed 5.0 percent by weight (§2102.04.b.6; §2105.03)
- c. Emissions of VOCs shall not exceed 0.91 tons in any 12 consecutive months. (§2102.04.b.6; §2105.03)
- d. The emission of air contaminants from the Extrusion/Coating Line shall not exceed the following hourly and annual limits identified in Table V.C.1. (§2103.12.a; §2103.12.h)

**TABLE V-C-1: - Emission Limitations: Process P003**

<b>EMISSION POINT</b>	<b>PROCESS</b>	<b>POLLUTANT</b>	<b>HOURLY EMISSION LIMIT (lb/hr)</b>	<b>LONG-TERM EMISSION LIMIT (tons per year<sup>1</sup>)</b>
S003	P003: Extrusion/Coating Line	VOCs	NA	0.91

<sup>1</sup> A year is defined as any consecutive 12-month period

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above entitled “Emissions Testing” and Article XXI §2108.02. (§2103.12.h.1; §2103.20.b.4; §2108.02)



**3. Monitoring Requirements:**

The permittee shall inspect all process equipment on a weekly basis to insure compliance with Condition V.C.1 above. Any deviations from the subject specifications shall be corrected as soon as possible. (§2102.04.e.)

**4. Record Keeping Requirements:**

- a. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application, including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (§2103.12.j)
- b. The permittee shall record the amount of die oil (in gallons) and coating (in gallons) as well as the VOC content (in percent by volume) of the die oil and/or coatings on a daily, monthly, and 12-month rolling total basis. (§2103.12.j)

**5. Reporting Requirements:**

- a. The permittee shall report the amount of die oil (in gallons) and coating (in gallons) as well as the VOC content (in percent by volume) of the die oil and/or coatings on a daily, monthly, and 12-month rolling total basis. (§2103.12.k)
- b. The permittee shall report the results of all testing as required in Condition V.C.2 above in accordance with Condition III.16 above. (§2103.12.k)
- c. A semi-annual report shall be submitted to the Department in compliance with General Condition III.16 above. (§2103.12.k)

**6. Work Practice Standard**

None except as provided elsewhere.

**7. Additional Requirements:**

The permittee shall notify the Department within ten (10) days of any change in raw materials or suppliers. (§2102.04.e.)



**D. Process P004: Clay and Shale Mining**

**Process Description:** Clay and Shale Mining  
**Emission Controls:** Scraping of Fine Dust from Haul Roads  
**Facility ID:** P004  
**Design Rate:** 100 tons/hr of Clay and Shale  
**Annual Throughput:** 157,500 tons of Clay and Shale  
**Raw Materials:** Clay and Shale

Process P004, identified as the “Clay and Shale Mining,” will consist of the following components (or equivalents):

Excavator  
 Front-end loaders  
 Bulldozers  
 Heavy-duty diesel vehicles (trucks)

**1. Restrictions:**

- a. The total raw materials handled shall not exceed 157,500 tons/yr. (§2102.04.b.6; §2105.03)
- b. The Mining Activities operations shall not exceed 4,160 hours per year. (§2102.04.b.6; §2105.03)
- c. The speed of any vehicle utilized in this process shall not exceed ten (10) miles per hour at any time. (§2104.05; §2105.49)
- d. The emission of air contaminants from the Clay and Shale Mining process shall not exceed the following hourly and annual limits identified in Table V.D.1. (§2103.12.a; §2103.12.h)

**Table V.D.1 - Emission Limitations: Process P004**

<b>EMISSION POINT</b>	<b>PROCESS</b>	<b>POLLUTANT</b>	<b>HOURLY EMISSION LIMIT (lb/hr)</b>	<b>LONG-TERM EMISSION LIMIT (tons per year<sup>1</sup>)</b>
F001	P004: Clay and Shale Mining	PM	7.99	15.11
		PM <sub>10</sub>	3.98	7.53
		PM <sub>2.5</sub>	3.98	7.53

<sup>1</sup> A year is defined as any consecutive 12-month period

**e. Particulate Matter Fugitive Emissions - Materials Handling**

In addition to the emission limitations outlined in Table V.D.1 above, the permittee shall conduct the mining operations in accordance with §2104.05 and §2105.49 in order to minimize the potential for fugitive emissions. (§2104.05; §2105.49)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level

Condition IV.14 above entitled "Emissions Testing" and Article XXI §2108.02. (§2103.12.h.1; §2103.20.b.4; §2108.02)

### **3. Monitoring Requirements:**

- a. The permittee shall monitor the amount of raw materials processed on a daily, monthly, and 12-month rolling total basis. This monitoring shall ascertain the material type and name(s) of any suppliers of raw materials from offsite. (§2102.04.e; §2103.12.i)
- b. The operating hours of the "Mining Activities" shall be monitored on a daily, monthly and 12-month rolling total basis. (§2102.04.e; §2103.12.i)

### **4. Record Keeping Requirements:**

- a. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application, including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (§2102.04.e; §2103.12.j)
- b. The permittee shall maintain records of the amount of raw materials processed on a daily, monthly, and 12-month rolling total basis. These records shall also contain the material type and name(s) of any suppliers of raw materials from offsite. (§2102.04.e; §2103.12.j)
- c. The operating hours of the "Mining Activities" shall be recorded on a daily, monthly and 12-month rolling total basis. (§2102.04.e; §2103.12.j)

### **5. Reporting Requirements:**

- a. The permittee shall report the amount of raw materials processed on a daily, monthly, and 12-month rolling total basis. This record shall also contain the material type and name(s) of any suppliers of raw materials from offsite. (§2103.12.k)
- b. The operating hours shall be reported on a daily, monthly and 12-month rolling total basis.
- c. The permittee shall report the results of all testing as required in Condition V.D.2 above in accordance with Condition III.16 above. (§2103.12.k)
- d. A semi-annual report shall be submitted to the Department in compliance with General Condition III.16 above. (§2103.12.k)

### **6. Work Practice Standard**

None except as provided elsewhere.

### **7. Additional Requirements**

None except as provided elsewhere.

**E. Process P005: Raw Materials Storage**

**Process Description:** Raw Materials Storage  
**Facility ID:** P005  
**Normal Inventory:** 15,000 tons (30,000 tons max.)  
**Annual Throughput:** 157,500 tons  
**Raw Materials:** Clay and Shale

Process P005, identified as the “Raw Materials Storage,” will consist of the following components (or equivalents):

4.0 cubic yard 540 Loaders  
 1.5 cubic yard 510 Loaders  
 TD25G Dresser Dozers

**1. Restrictions:**

- a. The total raw materials handled during Raw Material Storage operations shall not exceed 157,500 tons/yr. (§2102.04.b.6; §2105.03)
- b. The maximum speed of any vehicle utilized in this process shall not exceed five (5) miles per hour. (§2104.05; §2105.49)
- c. In addition to the emission limitations outlined in Table V.E.1 below, the permittee shall conduct the Raw Materials Storage operations in accordance with §2104.05 and §2105.49 in order to minimize the potential for fugitive emissions from material handling and active storage piles. (§2104.05; §2105.49)
- d. The emission of air contaminants from the Raw Materials Storage process shall not exceed the following hourly and annual limits identified in Table V.E.1. (§2103.12.a; §2103.12.h)

**Table V.E.1 - Emission Limitations: Process P005**

<b>EMISSION POINT</b>	<b>PROCESS</b>	<b>POLLUTANT</b>	<b>HOURLY EMISSION LIMIT<sup>2</sup> (lb/hr)</b>	<b>ANNUAL EMISSION LIMIT (tons per year<sup>1</sup>)</b>
F002	P005: Raw Material Storage Sheds	PM	0.915	1.73
		PM <sub>10</sub>	0.481	0.91
		PM <sub>2.5</sub>	0.481	0.91

<sup>1</sup> Tpy = “tons per year,” where a year is defined as any consecutive 12-month period

<sup>2</sup> Hourly emission rates based on a maximum of 4160 hours of operations per year, plus 10%.

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level

Condition IV.14 above entitled "Emissions Testing" and Article XXI §2108.02. (§2103.12.h.1; §2103.20.b.4; §2108.02)

### **3. Monitoring Requirements:**

- a. The permittee shall monitor the raw materials processed during "Raw Material Storage" operations including the amount of raw materials processed on a daily, monthly, and 12-month rolling total basis. This monitoring shall ascertain the material type and name(s) of any suppliers of raw materials from offsite. (§2102.04.e; §2103.12.i)

### **4. Record Keeping Requirements:**

- a. The permittee shall maintain records of the amount of raw materials processed while conducting "Raw Material Storage" operations on a daily, monthly, and 12-month rolling total basis. These records shall also contain the material type and name(s) of any suppliers of raw materials from offsite. (§2103.12.j)
- b. The permittee shall maintain records of the amount of raw materials processed on a daily, monthly, and 12-month rolling total basis. These records shall also contain the material type and name(s) of any suppliers of raw materials from offsite. (§2103.12.j)

### **5. Reporting Requirements:**

- a. The permittee shall report the amount of raw materials processed on a daily, monthly, and 12-month rolling total basis during "Raw material Storage" operations. These reports shall also contain the material type and name(s) of any suppliers of raw materials from offsite. (2103.12.k)
- b. The permittee shall report the results of all testing as required in Condition V.E.2 above in accordance with Condition III.16 above. (§2103.12.k)
- c. A semi-annual report shall be submitted to the Department in compliance with General Condition III.16 above. (2103.12.k)

### **6. Work Practice Standard**

None except as provided elsewhere.

### **7. Additional Requirements**

None except as provided elsewhere.

**F. Process P006: Vehicular Traffic**

**Process Description:** Road Dust Emissions  
**Facility ID:** F003  
**Parking Lots:** 14,000 ft<sup>2</sup>  
**Paved Roads:** 0.21 miles  
**Unpaved Roads:** 0.30 miles  
**VMT (unpaved):** 4698 miles/yr  
**VMT (paved):** 3356 miles/yr  
**Vehicle Type:** HDDV  
**Vehicle Weight:** 20 tons

Components: Heavy-duty diesel vehicles (trucks)

**1. Restrictions:**

**a. Emission Limitations**

The emission of air contaminants from vehicular traffic on facility roadways shall not exceed the following hourly and annual limits identified in Table V.F.1. (§2103.12.a; §2103.12.h)

**Table V.F.1 - Emission Limitations: Vehicular Traffic**

EMISSION POINT	PROCESS	POLLUTANT	HOURLY EMISSION LIMIT <sup>2</sup> (lb/hr)	ANNUAL EMISSION LIMIT (tons per year <sup>1</sup> )
F003	Process P006: Vehicular Traffic	PM	9.38	17.74
		PM <sub>10</sub>	1.89	3.58
		PM <sub>2.5</sub>	1.89	3.58

<sup>1</sup> tpy = "tons per year," where a year is defined as any consecutive 12-month period

<sup>2</sup> Hourly emission rates based on a maximum of 4160 hours of operations per year, plus 10%.

**b. Particulate Matter Fugitive Emissions:**

In addition to the emission limitations outlined in Table V.E.1 above, the permittee shall take actions in order to minimize the potential for fugitive emissions from vehicular traffic, including but not limited to, the following: (§2105.49)

- 1) The periodic scraping of fine dust from haul roads;
- 2) The use of water sprays/dust suppressants;
- 3) Periodic street sweeping of paved areas; and,
- 4) Maintain vehicle speed below ten (10) miles per hour at all times.

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.14 above entitled "Emissions Testing" and Article XXI §2108.02. (§2103.12.h.1; §2103.20.b.4; §2108.02)

**3. Monitoring Requirements:**

The permittee shall monitor: (§2102.04.e; §2103.12.i)

- 1) The periodic scraping of fine dust from haul roads;
- 2) The use of water sprays/dust suppressants;
- 3) Periodic street sweeping of paved areas; and,
- 4) Collect information sufficient to calculate fugitive emission due to the heavy-duty diesel vehicles shall be monitored on a daily, monthly, and 12-month rolling total basis.

**4. Record Keeping Requirements:**

The permittee shall maintain records of: (§2103.12.j)

- 1) The periodic scraping of fine dust from haul roads;
- 2) The use of water sprays/dust suppressants;
- 3) Periodic street sweeping of paved areas; and,
- 4) Collected information sufficient to calculate fugitive emission due to the heavy-duty diesel vehicles shall be recorded on a daily, monthly, and 12-month rolling total basis.

**5. Reporting Requirements:**

a. The permittee shall report: (§2103.12.k)

- 1) The periodic scraping of fine dust from haul roads;
- 2) The use of water sprays/dust suppressants;
- 3) Periodic street sweeping of paved areas; and,
- 4) Fugitive emission due to the heavy-duty diesel vehicles shall be reported for a daily, monthly, and 12-month rolling total basis.

b. The permittee shall report the results of all testing as required in Condition V.F.2 above in accordance with Condition III.16 above. (§2103.12.k)

c. A semi-annual report shall be submitted to the Department in compliance with General Condition III.16 above. (§2103.12.k)

**6. Work Practice Standard:**

None except as provided elsewhere.

**7. Additional Requirements:**

None except as provided elsewhere.

## **VI. MISCELLANEOUS**

*There are no miscellaneous sources at this facility.*

## **VII. ALTERNATIVE OPERATING SCENARIOS**

*No alternative operating scenarios exist for this Installation*



**VIII. EMISSIONS LIMITATIONS SUMMARY**

*[This section is provided for informational purposes only and is not intended to be an applicable requirement.]*

The annual emission limitations for the Redland Brick, Inc. facility are summarized in the following table:

**TABLE VII-1 - Emission Limitations Summary**

<b>POLLUTANT</b>	<b>ANNUAL EMISSION LIMIT (tons/year)*</b>
TSP (PM)	51.91
PM <sub>10</sub>	29.11
PM <sub>2.5</sub>	29.11
SO <sub>2</sub>	71.9
CO	98.50
NO <sub>x</sub>	43.47
VOCs	5.73
HF	1.8
HCl	0.96
Total HAPs Metals	0.07
Total HAPs	2.83

\* A year is defined as any consecutive 12-month period.