



NRO-005-10

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

L. Preston Bryant, Jr.  
Secretary of Natural Resources

13901 Crown Court, Woodbridge, Virginia 22193-1453  
(703) 583-3800 Fax (703) 583-3821  
www.deq.virginia.gov

David K. Paylor  
Director

Thomas A. Faha  
Regional Director

January 12, 2010

Mr. Chris Bagley  
Plant Manager  
Glen-Gery Corporation  
9905 Godwin Drive  
Manassas, Virginia 22110-0953

Registration No: NRO70244

Dear Mr. Bagley:

Attached is a permit to operate your Brick and Structural Clay Tile Manufacturing facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the NSR permits dated November 24, 2000 amended on January 30, 2001, the Title V permit dated January 14, 2000 with a minor modification on August 18, 2003, and a State Operating Permit dated May 12, 2006 with a minor amendment dated June 19, 2006.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the Department deemed the original application complete on September 16, 2004 and the application update on August 6, 2009. The Department solicited written public comments by placing a newspaper advertisement in the News and Messenger on November 23, 2009. The thirty day comment period (provided for in 9 VAC 5-80-270) expired on December 24, 2009 with no comments having been received in this office.

This approval to operate does not relieve Glen-Gery Corporation of the responsibility to comply with all other local, state, and federal permit regulations.

Event	Date	Initials
Code PRED	1/20/10	HGB
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Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

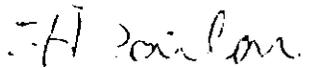
Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Mr. David K. Paylor, Director  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, Virginia 23240-0009

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please call Gary Beeson at (703) 583-3969.

Sincerely,



Terry H. Darton  
Regional Permit Manager

THD/HGB/NRO-10-005

Attachment: Permit

cc: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Chief, Permits and Technical Assessment Branch (3AP11), U.S. EPA, Region III



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## Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Glen-Gery Corporation  
Facility Name: Glen-Gery Capitol Plant  
Facility Location: 9905 Godwin Drive, Manassas, Virginia 20103-0953  
Registration Number: 70244  
Permit Number: NRO70244

This permit includes the following programs:

**Federally Enforceable Requirements - Clean Air Act (Sections I through IX)**  
**State Only Enforceable Requirements (Section X)**

January 12, 2010  
Effective Date

January 11, 2015  
Expiration Date

Regional Director

01-12-10  
Signature Date

Table of Contents, 2 pages  
Permit Conditions, 24 pages

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Code PTV	1/30/10	HGB
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## I. FACILITY INFORMATION

Permittee:

Glen-Gery Corporation  
P.O. Box 7001  
Wyomissing, Pennsylvania 19610-6001

Responsible Official:

Mr. Chris Bagley  
Plant Manager

Facility:

Glen-Gery Capitol Plant  
9905 Godwin Drive  
Manassas, Virginia 20108-0953

Contact Person:

Mr. Chris Bagley  
Plant Manager  
(703) 368-3178

County-Plant Identification Number: 51-683-00003

**Facility Description:** NAICS 327121 – Brick and Structural Clay Tile Manufacturing

The facility manufactures brick products utilizing shale and clay mined on site. The materials are processed through a crusher, grinding mill and screening before being extruded and prepared for firing. The bricks are routed through one of five dryers before entering one of three natural gas-fired kilns.

The facility is a Title V major source of hydrogen fluoride, a hazardous air pollutant. This source is located in an area, which is nonattainment for ozone and PM<sub>2.5</sub>, and attainment for all remaining criteria pollutants. The facility is a minor source for both the nonattainment New Source Review and Prevention of Significant Deterioration (PSD) federal new source review programs. The facility has been in operation since 1956 and was issued a new source review permit November 24, 2000 for the installation of a Shapes Natural Gas-fired Dryer and a Shapes Natural Gas-fired Kiln. The November 24, 2000 permit was amended on January 30, 2001 to allow the Shapes Natural Gas-fired Dryer and a Shapes Natural Gas-fired Kiln to be constructed with separate exhaust stacks rather than the single combined stack as originally permitted. At the time of this NSR permit issuance, the source's Title V permit had more than three years left in its life span, therefore, a minor modification to the Title V permit was issued on August 18, 2003.

On May 12, 2006 the facility was issued a federally enforceable State Operating Permit (SOP) to limit the production of brick for each of the two Allied Engineering Natural Gas brick kilns to 9.9 tons/hr averaged over a rolling twelve month period to avoid the 40 CFR 63, Subpart JJJJ MACT. This SOP was amended on June 19, 2006 to correct a math error in the May SOP.

**II. EMISSION UNITS**  
 Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
B-1	—	Pug water system boiler	1.68 MMBtu/hr	—	—	—
K-1	05 (K-1-1)	Allied Engineering Nat. Gas Brick Kiln	16.7 tons/hr	—	—	5/12/2006
K-2	06 (K-2-1)	Allied Engineering Nat. Gas Brick Kiln	16.7 tons/hr	—	—	5/12/2006
20 (D-5)	07 (D-5)	Shapes Dryer No. 1	0.65 tons/hr	Low NO <sub>x</sub> Burner	NO <sub>x</sub>	11/24/2000
22 (SK-1)	08 (SK-1)	Shapes Kiln No. 1	0.29 tons/hr	Low NO <sub>x</sub> Burner	NO <sub>x</sub>	11/24/2000
01	—	Raw material storage piles	—	—	—	—
02	—	McClanahan Super Black Diamond 24" x 48" Crusher, Model No. 2448 (Mfg. 1979)	300 tons/hr	—	—	Exemption letter dated September 9, 1999
03	Enclosed in a building	Grinder/screening/storage/manufacturing	55 tons/hr	—	—	—
04	04	Sand booth	1 ton/hr	UAS Dust Hog Model FJH-24-3	PM <sub>10</sub>	Exemption letter dated July 3, 2001

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
--	--	Sand mixing and sand dumping station	--	USA Dust Hog Model FJH-16-4	PM <sub>10</sub>	Exemption letter dated July 3, 2001
D-1	--	Waste heat dryer for Kiln 1	--	--	--	--
D-2	--	Waste heat dryer for Kiln 1	--	--	--	--
D-3	--	Waste heat dryer for Kiln 2	--	--	--	--
D-4	--	Waste heat dryer for Kiln2	--	--	--	--
Q	--	Quarry operations	--	--	--	--
AST-2	--	Gasoline storage tank	1,000 gal	--	--	--

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

### **III. FUEL BURNING EQUIPMENT REQUIREMENTS – (ALLIED KILNS – K-1 AND K-2)**

#### **A. Limitations**

1. The Allied Engineering Kilns (K-1 and K-2) shall process no more than 9.9 tons each of fired brick per hour calculated monthly as the average of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 2 of the June 19, 2006 amended State Operating Permit)
2. Visible emissions from the Allied Kiln processes shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.  
(9 VAC 5-40-80, 9 VAC 5-80-110, and Condition 6 of the June 19, 2006 amended State Operating Permit)
3. Emissions from the operation of each of the Allied Kiln processes shall not exceed the limits specified below:
4. Particulate Matter (PM<sub>10</sub>)                      16.0 lbs/hr
5. Sulfur Dioxide (SO<sub>2</sub>)                        32.9 lbs/hr  
(9 VAC 5-40-270, 9 VAC 5-40-280B, 9 VAC 5-80-110 and Condition 5 of the June 19, 2006 amended SOP)

#### **B. Monitoring and Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the Department of Environmental Quality's (DEQ) Northern Regional Office (NRO). These records shall include, but are not limited to the following:
2. Monthly production of fired bricks;
3. Monthly operating hours;
4. Hourly production of fired bricks on a monthly basis;
5. Hourly production of fired bricks on a twelve month rolling average basis;
6. Annual production of fired brick, calculated monthly as the sum of each consecutive twelve month period. Compliance for the consecutive twelve month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months and;
7. Annual consumption of natural gas calculated monthly as the sum of each consecutive twelve month period. Compliance for the consecutive twelve month period shall be demonstrated monthly by adding the total for the most recently

completed calendar month to the individual monthly totals for the preceding eleven months.

8. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 7 of the June 19, 2006 amended State Operating Permit)

### C. Testing

1. Each of the Allied Engineering kilns (Ref. No. 05 and 06) shall be modified so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-40-30, 9 VAC 5-80-110 and Condition 8 of the June 19, 2006 amended State Operating Permit)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
SO <sub>2</sub>	40 CFR 60, Appendix A EPA Method 6C
PM <sub>10</sub>	40CFR51, Appendix M EPA Method 201,201A
Visible Emission	40 CFR 60, Appendix A EPA Method 9

(9VAC5-80-110)

## IV. PROCESS EQUIPMENT REQUIREMENTS – (SHAPES SHUTTLE KILN - SK-1 AND SHAPES DRYER D-5)

### A. Limitations

1. The Shapes Shuttle Kiln shall process no more than 2,365 tons of fired brick per year calculated monthly as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 5 of the November 24, 2000 Permit)
2. The approved fuel for the Shapes Shuttle Kiln and the Shapes Dryer is natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 B and Condition 6 of the November 24, 2000 Permit)
3. Visible emissions from the Shapes Shuttle Kiln and the Shapes Dryer shall not exceed 10% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20% opacity.  
(9 VAC 5-40-80 and 9 VAC 5-80-110 and Condition 8 of the January 30, 2001 Permit)

4. Emissions from the operation of the Shapes Kiln and the Shapes Dryer shall not exceed the limits specified below:
  5. PM<sub>10</sub> 0.53lbs/hr 1.17 tons/yr
  6. Particulate Matter 0.63lbs/hr 1.37 tons/yr
  7. Nitrogen Dioxide (NO<sub>x</sub>) 0.25lbs/hr 0.53 tons/yr
  8. Carbon Monoxide (CO) 0.83lbs/hr 1.81 tons/yr  
(9 VAC 5-80-110 and Condition 7 of the November 24, 2000 Permit)
  9. Nitrogen Dioxide emissions shall be controlled by low NO<sub>x</sub> burners. The low NO<sub>x</sub> burners shall be provided with adequate access for inspection and shall be in operation when the Shapes natural gas fired dryer and Shapes natural gas fired shuttle kiln (D-5 and SK-1) are operating.  
(9VAC 5-50-260 and Condition 4 of the amended NSR permit dated January 30, 2001)

**B. Monitoring and Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's Northern Regional Office. These records shall include, but are not limited to the following:
2. Annual production of fired brick from the Shapes Shuttle Kiln, calculated monthly as the sum of each consecutive twelve month period;
3. Monthly emissions calculations for the criteria pollutants from the process stacks using calculation methods approved by the Regional Air Compliance Manager of the DEQ's NRO to verify compliance with the ton/yr emissions limitations;
4. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.  
(9 VAC 5-80-110 and Condition 9 of the November 24, 2000 Permit)

**C. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department of Environmental Quality (DEQ), test ports shall be provided at the appropriate locations.  
(9 VAC 5-40-30, 9 VAC 5-80-110, and Condition 3 of the amended NSR permit January 30, 2001)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
NO <sub>x</sub>	40 CFR 60, Appendix A EPA Method 7E
Particulate Emissions	40 CFR 60, Appendix A EPA Method 5
PM <sub>10</sub>	40 CFR 51, Appendix M EPA Method 201,201A
CO	40 CFR 60, Appendix A EPA Method 10
Visible Emission	40 CFR 60, Appendix A EPA Method 9

(9VAC5-80-110)

**V. PROCESS EQUIPMENT REQUIREMENTS – (EMISSION UNITS 02, 03, AND 04)**

**A. Limitations**

1. Visible emissions from the crusher, grinding and screening, and the sand booth shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.  
(9 VAC 5-40-80 and 9 VAC 5-80-110)
2. Emissions from the operation of the McClanahan Super Black Diamond 24" x 48" Crusher, Model No. 2448 crushing process (02) shall not exceed the limits specified below;
 

PM-10	40 lbs/hr
-------	-----------

 (9 VAC 5-40-270)
3. Emissions from the operation of the grinding and screening operation (03) shall not exceed the limits specified below;
 

PM-10	40 lbs/hr
-------	-----------

 (9 VAC 5-40-270)
4. Emissions from the operation of the sand booth operation (04) shall not exceed the limits specified below;
 

PM-10	4.14 lbs/hr
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 (9 VAC 5-40-270)

**B. Testing**

1. The permitted facility shall be modified to allow for emissions testing at any time using appropriate methods. Upon request from the DEQ, test ports shall be provided at the appropriate locations.

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
Particulate Emissions	40 CFR 60, Appendix A EPA Method 5, 17
PM-10	40 CFR 51, Appendix M EPA Method 201,201A
Visible Emission	40 CFR 60, Appendix A EPA Method 9

(9 VAC 5-40-30 and 9 VAC 5-80-110)

## VI. FACILITY WIDE CONDITIONS

### A. Limitations

1. Visible emissions from the facility shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity. This standard is applicable to all emission units and activities, excluding the Shapes Shuttle Kiln and the Shapes Dryer, at the Glen-Gery Capitol Plant.  
(9 VAC 5-40-80, 9 VAC 5-80-110, and Condition 8 of January 30, 2001 Permit)

### B. Monitoring and Recordkeeping

1. During each day of operation, the permittee shall conduct daily visual emission inspections during daylight hours of the crusher, grinding/screening building, the sand booth cartridge filter exhaust stack, Shapes Dryer stack, and each kiln stack. Visual inspections shall consist of a visual survey of each stack or process emission point, and of the plant-wide fugitive sources, over at least a 2-minute period while the process is operating to identify if there are visible emissions, other than condensed water vapor. If any visible emissions are observed, the source owner or operator shall:
2. Verify that the equipment and/or control device causing the visible emissions is operating according to manufacturer's specifications or other site-specific acceptable operating conditions. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate excess emissions.
3. If the corrective action taken in (a) does not rectify the opacity problem, conduct an opacity test within forty-eight hours of any observed visible emissions using a certified opacity reader in accordance with Method 9 (see Appendix A, 40 CFR 60). If the results of the Method 9 test indicate visible emissions which exceed the allowable opacity standard, the permittee shall conduct a Method 9 test at least once each daylight shift until corrective action successfully rectifies the opacity problem.
4. The permittee shall maintain a log of all visible emissions observations to identify the following:

5. Process unit, observer's name and affiliation,
6. Date of the observation,
7. Observer location with relation to the emission point,
8. Weather conditions at the time of the observation,
9. The start and stop times of the observations, and
10. The observation results to include the duration of any observed visible emissions.
11. This log shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
12. After completing the daily visible emissions observations at a given stack or process emission point for a thirty day period without observing any visible emissions, the permittee may extend the requirement for daily visible emissions observation at the stack or process to a schedule of once per week. The once per week observations shall be conducted in accordance with the procedures and recordkeeping requirements described above.
13. In the event that visible emissions are observed from any given stack or process emission point, the corrective action procedures and Method 9 testing described in Condition VI.B.1 shall be immediately instituted.
14. After correction of the opacity problem, the permittee shall resume daily visible emissions observations at that stack or process emission point.
15. Once daily visible emissions observations are completed for a thirty day period without observing any visible emissions, a weekly schedule may again be instituted at that stack or process emission point.
16. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit and to document actual emissions for the calculation of emission fees. The content of and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to, maintaining the annual throughput and/or production rates for all processes at the facility. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.  
(9 VAC 5-80-110 E)

### C. Testing

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
NO <sub>x</sub>	40 CFR 60, Appendix A EPA Method 7, 7E
SO <sub>2</sub>	40 CFR 60, Appendix A EPA Method 6C
CO	40 CFR 60, Appendix A EPA Method 10
PM-10	40 CFR 51, Appendix M EPA Method 201,201A
PM	40 CFR 60, Appendix A EPA Method 5, 17
Visible Emission	EPA Method 9

(9VAC5-80-110)

**D. Reporting**

The permit deviation and failure/malfunction reporting procedures in Conditions IX.E and IX.F of this permit shall be used to report any opacity excursions. In addition, two copies of the test results from any Method 9 tests for determining visible emissions shall be provided to the Regional Air Compliance Manager of the DEQ's NRO within thirty days of conducting the test.

(9VAC 5-80-110 and 9 VAC 5-20-180)

**VII. INSIGNIFICANT EMISSION UNITS**

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit ID.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
Quarry	Quarry Operations	9 VAC 5-80-720 B.1	Particulate Matter, PM <sub>10</sub>	—
Pug Water System	One natural gas fired boiler	9 VAC 5-80-720 C.2.a	Criteria pollutants	1.68 MMBtu/hr
V	Dryers 1-4 (Waste heat from kilns provide heat. No auxiliary burners)	9 VAC 5-80-720 B.2	VOC	—
AST-2	One 1,000 gallon gasoline AST	9 VAC 5-80-720 B.2	VOC	—

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

**VIII. PERMIT SHIELD & INAPPLICABLE REQUIREMENTS**

Compliance with the provisions of this permit shall be deemed in compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60, Subpart 000	Standards of Performance for Nonmetallic Minerals Processing Plants	The rule establishes particulate and opacity standards for affected units constructed, reconstructed, or modified after August 31, 1983. The Plant is not applicable since it has been in operation since 1956, and no modifications or reconstructions have occurred subjecting the facility to the NSPS.
40 CFR 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	The rule establishes standards for VOC emissions from affected storage tanks with a storage capacity equal to or greater than 40 cubic meters (10,567 gal). The storage tanks at the Plant are not applicable because the storage capacity of each tank is less than 40 cubic meters (10,567 gallons).
9 VAC 5-40, Part II, Article 14	Emission Standards for Sand and Gravel Processing Operations and Stone Quarrying and Processing Operations	The rule establishes requirements for stone quarrying operations, and applies to activities including crushers, conveyors, screens, transfer points, discharge points, and storage piles. These standards are not applicable to sources located in Air Quality Control Region 7 (e.g. Northern Virginia). Requirements for sources in AQCR 7 are established in 9 VAC Chapter 40, Part II, Article 4.
9 VAC 5-40 Part II, Article 37	Emission Standards for Petroleum Liquid Storage and Transfer Operations	The rule establishes standards for VOC emissions associated with petroleum liquid storage and transfer

		operations. These standards are not applicable to the tanks at the Plant because they are below the exemption thresholds of the rule for size and/or monthly throughput capacity.
40 CFR 63, Subpart JJJJ	National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing	This subpart establishes national emission limitations for hazardous air pollutants (HAP) emitted from brick and structural clay products (BSCP) manufacturing facilities. Maximum Achievable Control Technology Standards (MACT) for brick and structural clay products manufacturing, under 40 CFR 63, Subpart JJJJ and 9 VAC 5 Chapter 60 was promulgated on May 16, 2003, but was vacated on June 18, 2007. The Plant had a federally enforceable production limit in place prior to the May 16, 2006 effective date of this subpart and was therefore not applicable to the requirements of Subpart JJJJ.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
 (9 VAC 5-80-140)

**IX. GENERAL CONDITIONS**

**A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
 (9 VAC 5-80-110 N)

**B. Permit Expiration**

1. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the DEQ consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
2. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
3. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
4. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
5. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
6. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.  
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

**C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
2. The date, place as defined in the permit, and time of sampling or measurements
3. The date(s) analyses were performed
4. The company or entity that performed the analyses
5. The analytical techniques or methods used

6. The results of such analyses
7. The operating conditions existing at the time of sampling or measurement
8. Records of all monitoring data and support information shall be retained for at least five 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 the permit.
9. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year.
10. This semi-annual compliance monitoring report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
11. The time period included in the report is January 1 to June 30 and July 1 to December 31.
12. All deviations from permit requirements shall include, but are not limited to:
13. Exceedance of emissions limitations or operational restrictions;
14. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
15. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
16. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”  
(9 VAC 5-80-110 F)

**D. Annual Compliance Certification**

1. Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
2. The time period included in the certification is January 1 to December 31

3. The identification of each term or condition of the permit that is the basis of the certification
4. The compliance status
5. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance
6. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period
7. Such other facts as the permit may require in determining the compliance status of the source.
8. One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)  
U.S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 K.5)

**E. Permit Deviation Reporting**

The permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition IX.C.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

**F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Regional Air Compliance Manager of the DEQ's NRO by email, facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all

pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Regional Air Compliance Manager of the DEQ's NRO. (9 VAC 5-20-180 C)

**G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. (9 VAC 5-80-110 G.1)

**H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application. (9 VAC 5-80-110 G.2)

**I. Need to Halt or Reduce Activity not a Defense**

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 VAC 5-80-110 G.3)

**J. Permit Modification**

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

**K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

**L. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.  
(9 VAC 5-80-110 G.6)
2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110 K.1)

**M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the DEQ by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the DEQ.  
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

**N. Fugitive Dust Emission Standards**

1. During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
2. Use, where possible, of water for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
3. Application of asphalt or water on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
4. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of industry material. Adequate containment methods shall be employed during sandblasting or similar operations;

5. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
6. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.  
(9 VAC 5-40-90)

**O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
(9 VAC 5-40-20 E)

**P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.  
(9 VAC 5-80-110 J)

**Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times those substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.  
(9 VAC 5-80-110 K.2)

**R. Reopening For Cause**

1. The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. 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 pursuant to 9 VAC 5-80-80 F.
2. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
3. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
4. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

**T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.  
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

**U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
3. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
4. The permitted facility was at the time being properly operated.
5. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
6. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
7. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
8. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.  
(9 VAC 5-80-250)

**V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments

thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.  
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

**W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9 VAC 5-80-80 E)

**X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(40 CFR Part 82, Subparts A-F)

**Y. Asbestos Requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

**Z. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)

**AA. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)

**BB. Emissions Trading**

1. Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
2. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
3. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
4. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.  
(9 VAC 5-80-110 I)

**X. STATE-ONLY ENFORCEABLE REQUIREMENTS**

**A. Emission Limits**

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

1. 9 VAC 5 Chapter 60, Part II, Article 5: Emission Standards for Toxic Pollutants from New and Modified Sources (Rule 6–5).
2. Emissions from the operation of the Shapes natural gas fired shuttle kiln (SK-1) shall not exceed the limits specified below:

Hydrogen Fluoride (hydrofluoric acid)	1.02 lbs/hr	2.23 tons/yr
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(9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 22 of the January 30, 2001 Permit)

**B. Emission Factor Method**

The method for determining Hydrogen Fluoride emissions shall be the “Pyrohydrolysis Method for Fluorine Determination in Clays and Fired Ceramics” (Split Brick Method) as delineated in the National Brick Research Center's document of June 1998. This method shall be conducted using three “Split Brick” tests with three “Split Brick” test conducted from different shuttle kiln runs over a two month period. The average of these tests will

be used to determine the emission factor for that year. This method was authorized in a letter from DEQ dated September 12, 2002.

**C. On Site Records**

The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:

1. Annual production of fired brick from the Shapes natural gas fired shuttle kiln (SK-1), calculated monthly as the sum of each consecutive 12 month period.
2. Monthly emissions calculations for hydrogen fluoride from the process stack using calculation methods approved by the Air Compliance Manager, Northern Regional Office to verify compliance with the ton/yr emission limitation in 22 of the permit dated January 30, 2001. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.
3. Scheduled and unscheduled maintenance, and operator training.
4. Results of all stack tests and performance evaluations.
5. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-50-50, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 24 of the January 30, 2001 Permit)