

**COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office**

STATEMENT OF LEGAL AND FACTUAL BASIS

Old Virginia Brick Company
Mitchell Bell Road - Amherst County, Virginia
Permit No. BRRO-30734

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Old Virginia Brick has applied for a Title V Operating Permit for its Madison Heights facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: _____ Date: 01/06/09

Air Permit Manager: _____ Date: _____

Regional Director: _____ Date: _____

FACILITY INFORMATION

Permittee

Old Virginia Brick Company
P. O. Box 508
Salem, VA 24513

Facility

Old Virginia Brick Company – Madison Heights Plant
Mitchell Bell Road
Madison Heights, VA

County-Plant Identification Number: 51- 009-00025

SOURCE DESCRIPTION

NAICS Code: 327121 – Brick and Structural Clay Tile

Old Virginia Brick Company is a manufacturer of face brick, glazed brick, and special shapes covered by Standard Industrial Classification (SIC) Code 3251. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. The facility manufactures brick from raw clay and shale trucked into the facility. The facility is permitted to manufacture 74,000 tons of brick per year.

The facility is a Title V major source of hydrogen fluoride (a hazardous air pollutant (HAP)). The facility was previously permitted under a minor new source review (NSR) permit, issued on January 27, 1988, and amended on May 29, 1998 and September 10, 1998. The September 10, 1998 permit is for the entire facility.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

See Condition II of the Title V permit.

EMISSIONS INVENTORY

A copy of the 2007 annual emission update is attached. Emissions are summarized in the following tables.

2007 Actual Emissions

Emission Unit	2007 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO ₂	PM ₁₀	NO _x
Brick kiln and dryer		41.4	23.1	30.0	12.7
Sand Application				0	
Total		41.4	23.1	30	12.7

2007 Facility Hazardous Air Pollutant Emissions

Pollutant	2007 Hazardous Air Pollutant Emission in Tons/Yr
Hydrogen Fluoride	12.8
Hydrogen Chloride	5.9

EMISSION UNIT APPLICABLE REQUIREMENTS - Brick Manufacturing

Limitations

Condition III. A.1. contains the particulate emission control requirements for the clay crushing, screening, and storage. This condition is taken from the NSR permit issued September 10, 1998

Conditions III. A. 2.a. and b. contain the control requirements and visible emission limitation from the sand application. These conditions are taken from the NSR permit issued September 10,

1998.

Condition III. A. 3. a. contains the emissions limitations from the sand dryer. This condition is taken from the NSR permit issued September 10, 1998.

Conditions III. A.4.a, b, and c. contain the approved fuel, annual production limitation of 74,000 tons of brick per year, and the emissions limitations of the brick kiln and dryer. These conditions are taken from the NSR permit issued September 10, 1998.

Condition III.A.4.d. contains the new source opacity limitation of 20% percent opacity, except for one six-minute average in any one hour of not more than 30% opacity. This requirement is taken from 9 VAC 5-50-80 of the Virginia Administrative Code.

Monitoring

Conditions III.B.1. and 2. Contain the opacity periodic monitoring.

Monitoring of visible emissions will be required of the source (fabric filter stack 02 and kiln stack 03 and dryer stacks 04 and 05) at least one time per week, when the units are operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have the option to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective actions. If the unit has not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. This condition is included to address the requirements of 9 VAC 5-80-110 E and 9 VAC 5-80-110 K of the Virginia Administrative Code.

The only control device is the fabric filter for the sand application. Based on the capability of the sand dryer (1 tons/hr) and the PM10 emission factor for sand application (0.065 lb/ton), the uncontrolled PM emission rate for sand application is (1 X 0.065) or 0.065 pounds per hour or 0.29 tons per year. Compliance assurance monitoring (CAM), as contained in 40 Code of Federal Regulations, Part 64, is not required since the pre-control PM10 emissions are less than 100 tons per year. Since CAM only applies to emissions units which use a control device, there are no other units at this facility that are subject to CAM.

Recordkeeping

Condition III. C. contains the recordkeeping requirements. These are taken from the NSR permit issued September 10, 1998 or are necessary to meet requirements of 9 VAC 5-50-50 F and 9 VAC

5-80-110 F of the Virginia Administrative Code. The permit includes requirements for maintaining records for annual brick production (in tons), calculated monthly as the sum of the most recent 12 months and for all monitoring and testing required by the permit.

Testing

Condition III. D. states that the permitted facility shall be constructed so as to allow emissions testing at any time, using appropriated methods. This condition is included to address the requirements of 9 VAC 5-50-30 and 9 VAC 5-80-110 K of the Virginia Administrative Code.

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The only reporting that is required is in the General Conditions and that is stated below.

Facility Wide Conditions

Condition IV. A. 1. contains the requirement to develop a maintenance schedule and maintain an inventory of spare parts. This condition is taken from the NSR permit issued September 10, 1998.

Condition IV. A. 2. contains the requirement to have available written operating procedures for related air pollution control equipment. This condition is taken from the NSR permit issued September 10, 1998.

Condition IV. A. 3. contains the requirement that fugitive dust from the haul roads and yard area at the brick manufacturing facility be controlled. This condition is taken from the NSR permit issued September 10, 1998.

Streamlined Requirements

There are no streamlined requirements.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of

deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-2003”.

This general condition cites the Article that follows:

B.2 Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources.

B.3 Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources.

This general condition cites the sections that follow:

- B. 9 VAC 5-80-80. “Application”
- B.2. 9 VAC 5-80-150. “Action on Permit Applications”
- B.3. 9 VAC 5-80-80. “Application”
- B.4. 9 VAC 5-80-80. “Application”
- B.4. 9 VAC 5-80-140. “Permit Shield”
- B.5. 9 VAC 5-80-80. “Application”

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

J. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1605. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

9 VAC 5-80-110. Permit Content

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.

40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.

40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

STATE ONLY APPLICABLE REQUIREMENTS

There are no state only requirements.

FUTURE APPLICABLE REQUIREMENTS

The facility is a major source for hazardous air pollutant (HF) from the kiln.

In their decision dated 3/3/07 the District of Columbia Circuit Court of Appeals vacated 40 CFR 63 Subpart JJJJ (the Brick MACT). Specific guidance on how to address this situation is currently being considered by the EPA and VA-DEQ, and will be applied when available

INAPPLICABLE REQUIREMENTS

None

COMPLIANCE PLAN

A compliance plan is not required.

INSIGNIFICANT EMISSION UNITS

There were no insignificant emissions units identified

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit will be placed on public notice in the The News & Advance from November 5, 2008 to December 5, 2008.