

COMMONWEALTH OF VIRGINIA  
STATE AIR POLLUTION CONTROL BOARD  
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9 VAC 5 CHAPTER 40.  
EXISTING STATIONARY SOURCES.

PART II.  
Emission Standards.

ARTICLE 9.  
Emission Standards for Coke Ovens (Rule 4-9).

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- 9 VAC 5-40-1190. Permits.

9 VAC 5-40-1050. Applicability and designation of affected facility.

A. The affected facilities in coke plants to which the provisions of this article apply are: horizontal slot sole-flue nonrecovery ovens and horizontal slot nonrecovery ovens.

B. The provisions of this article apply throughout the Commonwealth of Virginia.

9 VAC 5-40-1060. Definitions.

A. For the purpose of these regulations and subsequent amendments or any orders issued by the board, the words or terms shall have the meaning given them in subsection C of this section.

B. As used in this article, all terms not defined here shall have the meaning given them in 9 VAC 5 Chapter 10 (9 VAC 5-10-10 et seq.), unless otherwise required by

context.

C. Terms defined.

"Charging" means the process by which coal is introduced into a coke oven beginning when coal enters the oven and ending when the door is closed.

"Coking" means the process by which coal is converted to coke by means of destructive distillation using heat.

"Pushing" means the process by which coke is removed from a coke oven, including the period marked by the time when the doors are first removed from a coke oven until quench water is applied to the hot coke.

"Quenching" means the process by which the combustion of hot coke is stopped by application of water or any other procedure achieving the same affect.

9 VAC 5-40-1070. Standard for particulate matter.

A. No owner or other person shall cause or permit to be discharged into the atmosphere from any horizontal slot sole-flue nonrecovery oven any particulate emissions from coking, charging and pushing operations in excess of a combined total of 0.15 pounds of particulate/hour/ton of coal, as charged.

B. No owner or other person shall cause or permit to be discharged into the atmosphere from any horizontal slot nonrecovery oven any particulate emissions from coking, charging and pushing operations in excess of a combined total of 0.13 pounds of particulate/hour/ton of coal, as charged.

C. No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility during the quenching operation any particulate emissions in excess of that resultant from use of a quench tower incorporating state-of-the-art engineering design.

9 VAC 5-40-1080. Standard for sulfur dioxide.

No owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any sulfur dioxide emissions in excess of the following limit:

$$S = 2.64K$$

where:

S = allowable emission of sulfur dioxide expressed in pounds per hour.

K = actual heat input expressed in Btu x 10<sup>6</sup> per hour.

9 VAC 5-40-1090. Standard for visible emissions.

No owner or other person shall cause to be discharged into the atmosphere from any affected facility any visible emissions in excess of the following limits:

1. The limits in 9 VAC 5-40-80 during the coking operation.
2. An average of 20% opacity from the coke side enclosure during the pushing operation.
3. An average of 20% opacity during the charging operation.

9 VAC 5-40-1100. Standard for fugitive dust/emissions.

The provisions of Article 1 (9 VAC 5-40-60 et seq.) of this chapter (Emission Standards for Visible Emissions and Fugitive Dust/Emissions, Rule 4-1) apply.

9 VAC 5-40-1110. Standard for odor.

The provisions of Article 2 (9 VAC 5-40-130 et seq.) of this chapter (Emission Standards for Odor, Rule 4-2) apply.

9 VAC 5-40-1120. Standard for toxic pollutants.

The provisions of Article 3 (9 VAC 5-40-160 et seq.) of this chapter (Emission Standards for Toxic Pollutants, Rule 4-3) apply.

9 VAC 5-40-1130. Compliance.

The provisions of 9 VAC 5-40-20 (Compliance) apply.

9 VAC 5-40-1140. Test methods and procedures.

The provisions of 9 VAC 5-40-30 (Emission Testing) apply, except:

1. Compliance with particulate standards prescribed by 9 VAC 5-40-1070 A and B shall be determined by three or more emission tests conducted at different times during the total operation of the affected facility. The emission tests and times shall be acceptable to the board.
2. Compliance with opacity standards for fugitive visible emissions prescribed by 9 VAC 5-40-1090 B and C shall be determined by conducting observations in accordance with the test methods and procedures prescribed in subsections B 1 and 2 of this section.

a. The opacity of coke oven fugitive particulate emissions is determined by an observer, qualified in accordance with Reference Method 9, using the following procedures:

(1) The qualified observer shall, to the extent practicable, stand in a position meeting the guidelines of Reference Method 9. Notwithstanding any Method 9 guideline, the observer shall stand in a safe position with an unobstructed view of the emission source.

(2) Field records shall be in accordance with Reference Method 9.

(3) Each opacity observation shall be made at the point of greatest opacity after the emissions leave the coke oven. Observations shall be recorded at 15 second intervals for the entire duration of the charge or push. Observations which cannot be made due to the interference of another plume or any other obstruction shall be noted with an asterisk.

(4) Recording observations shall be in accordance with Reference Method 9, except that the minimum number of observations shall be determined by the duration of the operation being observed.

(5) Opacity shall be determined as an average of all 15 second observations recorded during either charging or pushing, as appropriate. Opacity of emissions shall be determined individually for each charge or push, and shall not be averaged over more than one coke oven. Missing observations due to interferences shall not affect the opacity determination.

b. All certification and testing requirements are identical to those of Reference Method 9.

9 VAC 5-40-1150. Monitoring.

The provisions of 9 VAC 5-40-40 (Monitoring) apply.

9 VAC 5-40-1160. Notification, records and reporting.

The provisions of 9 VAC 5-40-50 (Notification, Records and Reporting) apply.

9 VAC 5-40-1170. Registration.

The provisions of 9 VAC 5-20-160 (Registration) apply.

9 VAC 5-40-1180. Facility and control equipment maintenance or malfunction.

The provisions of 9 VAC 5-20-180 (Facility and Control Equipment Maintenance or

Malfunction) apply.

9 VAC 5-40-1190. Permits.

A permit may be required prior to beginning any of the activities specified below and the provisions of 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) and 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq.) may apply. Owners contemplating such action should contact the appropriate regional office for guidance.

1. Construction of a facility.
2. Reconstruction (replacement of more than half) of a facility.
3. Modification (any physical change to equipment) of a facility.
4. Relocation of a facility.
5. Reactivation (restart-up) of a facility.

HISTORICAL NOTES:

Derived from: Rule 4-9 of Part IV of VR 120-01 (§ 120-04-0901 through § 120-04-0915)

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