

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 23.  
Emission Standards For Nitric Acid Production Units (Rule 4-23).

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9 VAC 5-40-3120. Applicability and designation of affected facility.

A. The affected facility to which the provisions of this article apply is each nitric acid production unit.

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

9 VAC 5-40-3130. 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.

"Nitric acid production unit" means any facility producing nitric acid 30 to 70% in strength by either the pressure or atmospheric pressure process.

9 VAC 5-40-3140. Standard for nitrogen oxides.

No owner or other person shall cause or permit to be discharged into the atmosphere from any nitric acid production unit any emissions of nitrogen oxides (expressed as nitrogen dioxide) in excess of 5.5 pounds per ton of 100% acid produced.

9 VAC 5-40-3150. Standard for visible emissions.

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

9 VAC 5-40-3160. Standard for fugitive dust/emissions.

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

9 VAC 5-40-3170. **[Not in SIP]**

9 VAC 5-40-3180. **[Not in SIP]**

9 VAC 5-40-3190. Compliance.

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

9 VAC 5-40-3200. Test methods and procedures.

The provisions of 9 VAC 5-40-30 (Emission Testing) apply.

9 VAC 5-40-3210. Monitoring.

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

B. Unless otherwise approved by the board, owners of existing sources specified in subsection C of this section shall install, calibrate, maintain and operate systems for continuously monitoring and recording emissions of specified pollutants.

C. Nitric acid plants of greater than 300 tons per day production capacity (the production capacity being expressed as 100% acid) shall be monitored for nitrogen oxides emissions.

D. The pollutant gas used to prepare calibration gas mixtures under paragraph 2.1, Performance Specification 2 of Appendix B of 40 CFR 60 and for calibration checks under 9 VAC 5-40-41 shall be nitrogen dioxide (NO<sub>2</sub>). The span shall be set at 500 ppm of nitrogen dioxide. Reference Method 7 shall be used for conducting monitoring system performance evaluations under 9 VAC 5-40-41.

E. The owner shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (lb/short ton). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data average by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., lb/short ton per ppm. The conversion factor shall be reestablished during any emission test under 9 VAC 5-40-30 or any continuous monitoring system performance evaluation under 9 VAC 5-40-41. The average nitrogen oxides concentration in the flue gases shall be multiplied by the conversion factor to obtain the average nitrogen oxides emissions in the units of the applicable standard.

9 VAC 5-40-3220. Notification, records and reporting.

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

B. The owner shall record the production rate and hours of operation.

C. For the purpose of reports required under 9 VAC 5-40-50 C, periods of excess emissions that shall be reported are defined as any three-hour period during which the average nitrogen oxides emissions (arithmetic average of three contiguous one-hour periods) exceed the standard under 9 VAC 5-40-3140.

9 VAC 5-40-3230. Registration.

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

9 VAC 5-40-3240. 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 5-40-3250. 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.