



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

STATIONARY SOURCE PERMIT TO OPERATE

This permit implements the requirements for Best Available Retrofit Technology (BART) for PM, SO₂ and NO_x in the Valley of Virginia Intrastate Air Quality Control Region.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

O-N Minerals (Chemstone) Company
Post Office Box 71
Strasburg, Virginia 22657
Registration No.: 80252

is authorized to operate

a rotary kiln and
a calcimatic kiln

located at

1696 Oranda Road
Strasburg, Shenandoah County

in accordance with the Conditions of this permit.

Approved on

December 28, 2009

Alyse Owens for
Director, Department of Environmental Quality

Permit consists of 16 pages.
Permit Conditions 1 to 48.
Source Testing Report Format

PURPOSE

This permit (i) is for the purpose of implementing the “best available retrofit technology” (BART) requirements of Article 52 (9 VAC 5-40-7550 *et seq.*) of 9 VAC 5 Chapter 40 of the Regulations of the Board and (ii) establishes control technology and other requirements for the control of visibility-impairing pollutants from the O-N Minerals (Chemstone) Company – Strasburg Facility in the Valley of Virginia Intrastate Air Quality Control Region. These BART requirements shall be the legal and regulatory basis for control of visibility-impairing pollutants from this facility.

INTRODUCTION

This permit approval is based on the permit application dated February 21, 2007, including supplemental information dated April 27, 2007, May 31, 2007, July 12, 2007, August 30, 2007, September 27, 2007, November 12, 2007, December 5, 2007, December 14, 2007, January 7, 2008, March 17, 2008, July 15, 2008, May 8, 2009, June 4, 2009, and August 27, 2009. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 and 9 VAC 5-40-7570 C of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will be either in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment subject to this permit at this facility consists of the following:

Equipment permitted prior to the date of this permit		
Reference No.	Equipment Description	Rated Capacity
U5	Rotary kiln	25 tons lime/hr
U12	Calcimatic kiln	8 tons lime/hr

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 5-80-850 and 9 VAC 5-40-7550)

2. **Emission Controls: Rotary Kiln** – Nitrogen oxides (NO_x) emissions from the rotary kiln (U5) shall be controlled by good combustion practices and by use of an indirect firing system. The indirect firing system shall be provided with adequate access for inspection and shall be in operation when the rotary kiln is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7580)
3. **Emission Controls: Rotary Kiln** – Particulate matter having an aerodynamic diameter less than or equal to ten micrometers (PM-10) emissions from the rotary kiln (U5) shall be controlled by a multicyclone and fabric filters. The multicyclone and fabric filters shall each be provided with adequate access for inspection and shall each be in operation when the rotary kiln is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7580)
4. **Emission Controls: Rotary Kiln** – No later than September 10, 2010, sulfur dioxide (SO₂) emissions from the rotary kiln (U5) shall be controlled to achieve the SO₂ limits in Condition 23. Unless the Director, Valley Regional Office, approves inherent process scrubbing as an alternative control technology by September 10, 2011, a wet scrubber shall be installed by August 1, 2012. The wet scrubber or other technology employed to meet the SO₂ limits shall be provided with adequate access for inspection and shall be in operation when the rotary kiln is operating.
(9 VAC 5-80-850, 9 VAC 5-40-7580, 9 VAC 5-40-7590 and 9 VAC 5-40-7650)
5. **Emission Controls: Calcimatic Kiln** – NO_x emissions from the calcimatic kiln (U12) shall be controlled by good combustion practices.
(9 VAC 5-80-850 and 9 VAC 5-40-7580)
6. **Emission Controls: Calcimatic Kiln** – PM-10 emissions from the calcimatic kiln (U12) shall be controlled by a multicyclone and Venturi scrubber. The multicyclone and Venturi scrubber shall each be provided with adequate access for inspection and shall each be in operation when the calcimatic kiln is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7580)

7. **Emission Controls: Calcimatic Kiln** – Sulfur dioxide (SO₂) emissions from the calcimatic kiln (U12) shall be controlled by Venturi scrubber. The Venturi scrubber shall be provided with adequate access for inspection and shall be in operation when the calcimatic kiln is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7580)
8. **Monitoring Devices: Fabric Filter** - Each fabric filter serving the rotary kiln (U5) shall be equipped with devices to continuously measure the differential pressure across the filter. Each monitoring device shall be installed, maintained, calibrated or verified, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the rotary kiln is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7670)
9. **Monitoring Devices: Wet Scrubber** – If a wet scrubber is used to meet the SO₂ limits in Condition 23, it shall be equipped with devices to continuously measure and record liquid flow rate and the differential pressure across the scrubber. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the scrubber is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7670)
10. **Monitoring Devices: Venturi Scrubber** - The Venturi scrubber serving the calcimatic kiln (U12) shall be equipped with devices to continuously measure the scrubber liquid flow rate, the exit gas temperature, and the differential pressure across the scrubber. Each monitoring device shall be installed, maintained, calibrated or verified, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the calcimatic kiln is operating.
(9 VAC 5-80-850 and 9 VAC 5-40-7670)
11. **BART Monitoring Plan** – The permittee shall prepare and implement, for each kiln (U5 and U12), a written BART monitoring plan. The permittee shall submit the plan to the Director, Valley Regional Office, for review and approval within 180 days of permit issuance. Any subsequent changes to the plan must be submitted to the Director, Valley Regional Office, for review and approval. Pending approval by the Director, Valley Regional Office, of an initial or amended plan, the permittee shall comply with the provisions of the submitted plan. Each plan shall contain the following information:
 - a. Process and control device parameters to be monitored to determine compliance with NO_x emission limits and good combustion practices, along with established operating limits or ranges, as applicable, for each kiln (U5 and U12).
 - b. A monitoring schedule for each kiln (U5 and U12).

- c. Procedures for the proper operation and maintenance of each kiln (U5 and U12) and each air pollution control device used to meet the applicable emission limitations in Conditions 22, 23 and 24.
- d. Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance or good combustion practices, including:
 - i. Calibration and certification of accuracy of each monitoring device;
 - ii. Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;
 - iii. Ongoing operation and maintenance procedures; and
 - iv. Ongoing data quality assurance procedures.
- e. Procedures for monitoring process parameters indicative of good combustion practices and control device parameters indicative of proper control device operation.
- f. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the values identified in Condition 11e.
- g. A maintenance schedule for each kiln (U5 and U12) and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(9 VAC 5-80-850 and 9 VAC 5-40-7670)

- 12. Monitoring Devices/Observations** -- Process parameters indicative of good combustion practices for the rotary kiln (U5) and the calcimatic kiln (U12) shall be monitored in accordance with the BART monitoring plan required by Condition 11.

(9 VAC 5-80-850 and 9 VAC 5-40-7670)

- 13. Monitoring Device Observation: Fabric Filter** -- To ensure good performance, the fabric filter monitoring device used to continuously measure differential pressure shall be observed by the permittee with a frequency of not less than once per operating day. The permittee shall keep a log of the measurements of the fabric filter monitoring device.

(9 VAC 5-80-850 and 9 VAC 5-40-7670)

- 14. Monitoring Device Observation: Wet Scrubber** -- If a wet scrubber is used to meet the SO₂ limits in Condition 23, the monitoring devices used to continuously measure liquid flow rate and pressure drop for the wet scrubber shall be observed by the permittee with a frequency of not less than once per operating day. The permittee shall continuously record measurements from the wet scrubber monitoring devices.

(9 VAC 5-80-850 and 9 VAC 5-40-7670)

15. **Monitoring Device Observation: Venturi Scrubber** – To ensure good performance, the magnahelic gauge used to continuously measure pressure drop across the Venturi scrubber, the flow meter used to monitor scrubber liquid flow rate, and the thermocouple used to measure exit gas temperature shall each be observed by the permittee with a frequency of not less than once per operating day. The permittee shall keep a log of the measurements from the magnahelic gauge, the flow meter, and the thermocouple.
(9 VAC 5-80-850 and 9 VAC 5-40-7670)
16. **Monitoring: Rotary and Calcimatic Kilns** – The combustion apparatus on the rotary and calcimatic kilns (U5 and U12) shall each be inspected at least annually or at the earliest shutdown following one year from the previous inspection. During the inspection, each apparatus shall be adjusted as necessary or tuned to ensure optimization such that NO_x emissions are minimized.
(9 VAC 5-80-850 and 9 VAC 5-40-7670)

OPERATING LIMITS

17. **Fuel: Rotary Kiln** - The approved fuels for the rotary kiln (U5) are coal, distillate oil, and natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)
18. **Fuel: Calcimatic Kiln** - The approved fuels for the calcimatic kiln (U12) are distillate oil, natural gas, and recycled oil. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)
19. **Fuel: Rotary Kiln** - The coal and distillate oil shall meet the specifications below:
- COAL:
Maximum sulfur content per shipment: 1.0%
as determined by ASTM D3177, D4239, or a DEQ-approved equivalent method
- DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.5%
- (9 VAC 5-80-850 and 9 VAC 5-40-7580)
20. **Fuel: Calcimatic Kiln** - The distillate oil and recycled oil shall meet the specifications below:
- DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.5%

RECYCLED FUEL OIL which meets the following specifications:
Maximum sulfur content per shipment: 0.5%

(9 VAC 5-80-850 and 9 VAC 5-40-7580)

21. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of coal, distillate oil and recycled oil. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the coal, distillate oil or recycled oil was received;
- c. The quantity of coal, distillate oil or recycled oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 or 2 fuel oil;
- e. The sulfur content of the coal, distillate oil, or recycled oil;
- f. The methods used to determine the sulfur content of the coal.

Details of the content of certifications shall be arranged with the Director, Valley Regional Office. Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ, may be used to determine compliance with the fuel specifications stipulated in Conditions 19 and 20. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-850 and 9 VAC 5-40-7580)

EMISSION LIMITS

22. **Process Emission Limits: Rotary Kiln** - Emissions from the operation of the rotary kiln (U5) shall not exceed the limits specified below. The PM and PM₁₀ limits shall be effective 180 days after the permit effective date.

Particulate Matter (PM)	0.12 lbs/tsf	6.0 lbs/hr
PM ₁₀	0.12 lbs/tsf	6.0 lbs/hr
Nitrogen Oxides (as NO ₂)	1.74 lbs/tsf	87.0 lbs/hr

tsf = tons stone feed

Hourly emission limits represent averages for a three-hour sampling period.

Compliance with these emission limits may be determined as stated in Conditions 2, 3, 11, 19, 21, 27, 30, and 31. Compliance with the lb/tsf limits shall be based on the most recent DEQ-approved stack test. Compliance with the lb/hr limits shall be calculated monthly (as a monthly average) based on the lb/tsf factor determined in the most recent DEQ-approved stack test, the monthly limestone feed input, and kiln operating hours for the month. (9 VAC 5-80-850 and 9 VAC 5-40-7580)

23. **Process Emission Limits: Rotary Kiln** – No later than September 10, 2010, emissions from the operation of the rotary kiln (U5) shall not exceed the limits specified below:

Sulfur Dioxide	0.29 lbs/tsf	14.7 lbs/hr
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tsf = tons stone feed

Hourly emission limits represent averages for a 24-hour sampling period.

The lbs/tsf limit shall apply at all times except during startup. The lbs/hr limit shall apply at all times, including startup. Startup is defined as the period commencing when fuel begins to flow to the burner and ending when any product is discharged to the cooler discharge weigh belt. For compliance purposes, emissions shall be calculated based on CEMS data and daily limestone feed input and using a DEQ-approved methodology. (9 VAC 5-80-850 and 9 VAC 5-40-7580)

24. **Process Emission Limits: Calcimatic Kiln** - Emissions from the operation of the calcimatic kiln (U12) shall not exceed the limits specified below:

Particulate Matter (PM)	0.60 lbs/tsf	9.6 lbs/hr
PM-10	0.60 lbs/tsf	9.6 lbs/hr
Nitrogen Oxides (as NO ₂)	0.61 lbs/tsf	9.8 lbs/hr
Sulfur Dioxide	0.16 lbs/tsf	2.6 lbs/hr

tsf = tons stone feed

Hourly emission limits represent averages for a three-hour sampling period.

Compliance with these emission limits may be determined as stated in Conditions 5, 6, 7, 11, 20, 21, 29, 30 and 31. Compliance with the lb/tsf limits shall be based on the most recent DEQ-approved stack test. Compliance with the lb/hr limits shall be calculated monthly (as a

monthly average) based on the lb/tsf factor determined in the most recent DEQ-approved stack test, the monthly limestone feed input, and kiln operating hours for the month. (9 VAC 5-80-850 and 9 VAC 5-40-7580)

25. **Emission Testing** - The rotary and calcimatic kilns (U5 and U12) shall each be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided. (9 VAC 5-80-880, 9 VAC 5-80-850 and 9 VAC 5-40-7660)

RECORDS

26. **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 Director, Valley Regional Office. These records shall include, but are not limited to:
- a. Annual consumption of each fuel used in each kiln, calculated monthly as the sum of each consecutive 12-month period.
 - b. Records necessary to monitor the monthly and annual limestone feed input to each kiln in accordance with a DEQ-approved protocol. Annual limestone feed input shall be calculated monthly as the sum of each consecutive 12-month period.
 - c. Monthly hours of operation for each kiln.
 - d. All fuel supplier certifications.
 - e. Monthly emissions calculations for PM and NO_x from the rotary kiln (U5) to verify compliance with the lbs/hr emissions limitations in Condition 22.
 - f. Beginning on September 10, 2010, Continuous Emissions Monitoring System (CEMS) data from the rotary kiln (U5) to verify compliance with the lbs/hr emissions limitation in Condition 23.
 - g. Beginning on September 10, 2010, daily emissions calculations for SO₂ from the rotary kiln (U5) based on CEMS and production data to verify compliance with the lb/tsf emissions limitation in Condition 23.
 - h. Monthly emissions calculations for PM, SO₂ and NO_x from the calcimatic kiln (U12) to verify compliance with the lbs/hr emissions limitations in Condition 24.

- i. Control device monitoring records for the fabric filter serving the rotary kiln (U5) as required in Conditions 8 and 13.
- j. Beginning on August 1, 2012, control device monitoring records for the wet scrubber serving the rotary kiln (U5) as required in Conditions 9 and 14.
- k. Control device monitoring records for the Venturi scrubber serving the calcimatic kiln (U12) as required in Conditions 10 and 15.
- l. Copy of the BART Monitoring Plan required by Condition 11, including any amendments made to the original plan.
- m. Records of monitoring conducted in accordance with the BART Monitoring Plan, as required by Condition 12.
- n. Records of rotary and calcimatic kilns (U5 and U12) combustion optimization/tuning conducted according to Condition 16.
- o. Scheduled and unscheduled maintenance, and operator training.
- p. Results of all stack tests, performance evaluations, and CEMS Quality Control Program documentation.

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

(9 VAC 5-80-900 and 9 VAC 5-40-7680)

INITIAL COMPLIANCE DETERMINATION

27. **Stack Test: Rotary Kiln** – Initial performance tests shall be conducted for NO_x and PM from the rotary kiln (U5) using EPA Reference Methods 7 or 7E and 5 (40 CFR 60 Appendix A), respectively, to determine compliance with the emission limits contained in Condition 22. The tests shall be performed and demonstrate compliance within 180 days after the effective date of the permit. Upon approval by the Director, Valley Regional Office, stack testing performed 12 months or less prior to the effective date of the permit may serve to satisfy this condition. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-40-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Valley Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. A copy of the test results shall be submitted to the Director, Valley Regional Office, within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-850 and 9 VAC 5-40-7660)

28. **Stack Test: Rotary Kiln** – Initial performance tests shall be conducted for SO₂ from the rotary kiln (U5) using EPA Reference Method 6 or 6C (40 CFR 60 Appendix A) to determine compliance with the emission limits contained in Condition 23. The tests shall be performed and demonstrate compliance within 60 days after the compliance date in Condition 23. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-40-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Valley Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. A copy of the test results shall be submitted to the Director, Valley Regional Office, within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-850 and 9 VAC 5-40-7660)
29. **Stack Test: Calcimatic Kiln** – Initial performance tests shall be conducted for NO_x, SO₂ and PM from the calcimatic kiln (U12) using EPA Reference Methods 7 or 7E, 6 or 6C, and 5 (40 CFR 60 Appendix A), respectively, to determine compliance with the emission limits contained in Condition 24. The tests shall be performed and demonstrate compliance within the latter of 180 days after the effective date of the permit or 90 days following resumption of the unit's normal operation. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-40-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Valley Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. A copy of the test results shall be submitted to the Director, Valley Regional Office, within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-850 and 9 VAC 5-40-7660)

CONTINUING COMPLIANCE DETERMINATION

30. **Stack Tests: PM** – At least once every five years, or upon request by the DEQ, the permittee shall conduct additional performance tests for PM from the rotary and calcimatic kilns (U5 and U12) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Director, Valley Regional Office.
(9 VAC 5-80-850 and 9 VAC 5-40-7660)
31. **Annual Stack Test: NO_x** – An annual stack test shall be conducted on the rotary kiln (U5) and on the calcimatic kiln (U12) for NO_x, using EPA Reference Method 7 or 7E (40 CFR 60 Appendix A). Each annual stack test shall be conducted no later than 13 months after the previous stack test. The first test of the calcimatic kiln (U12) shall be conducted within 90 days after the unit resumes normal operation. If the calcimatic kiln (U12) has ceased operation at the time the subsequent annual test is due (13 months after the previous test), testing shall be conducted within 60 days after the unit again resumes normal operation. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-40-30 and the

test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Valley Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Test results shall be submitted to the Director, Valley Regional Office, within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-80-850 and 9 VAC 5-40-7660)

32. **Reduced Stack Testing** – If three consecutive annual stack tests conducted in accordance with Condition 31 for either kiln (U5 or U12) demonstrate compliance with the NO_x emission limits in Conditions 22 (for U5) or 24 (for U12), the stack testing frequency required by Condition 31 shall be reduced to once every five years for the kiln. The permittee shall conduct another stack test for each kiln (U5 or U12) within 60 months of the date of the third consecutive stack test that shows compliance with the emission limits. Thereafter, the permittee must perform stack tests every fifth year but no later than 60 months following the previous stack test. If the calcimatic kiln (U12) has ceased operation at the time the subsequent fifth-year test is due (60 months after the previous test), testing shall be conducted within 60 days after the unit again resumes normal operation. If a stack test for either kiln (U5 or U12) shows noncompliance with the NO_x emission limits, the permittee shall conduct annual stack tests for the kiln until stack tests over three consecutive years show compliance with the emission limits. (9 VAC 5-80-850 and 9 VAC 5-40-7660)
33. **CEMS** – No later than September 10, 2010, a Continuous Emission Monitoring Systems (CEMS) shall be installed to measure and record the emissions of SO₂ in pounds per hour from the rotary kiln (U5). CEMS for SO₂ shall be installed, evaluated, and operated according to the requirements of 9 VAC 5-40-41. For compliance with the emission limits contained in Condition 23, SO₂ data shall be reduced to 24-hour block averages. (9 VAC 5-80-850, 9 VAC 5-40-40 F and 9 VAC 5-40-7670)
34. **CEMS Performance Evaluations** - Performance evaluations of the SO₂ continuous monitoring systems shall be conducted in accordance with 9 VAC 5-40-41 B.1 and shall take place during the performance tests required by Condition 28 or within 30 days thereafter. One copy of the performance evaluation report shall be submitted to the Director, Valley Region, within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30-day notification, prior to the demonstration of the continuous monitoring system's performance, and subsequent notifications shall be submitted to the Director, Valley Regional Office. (9 VAC 5-80-850, 9 VAC 5-40-40 F and 9 VAC 5-40-7670)

35. **CEMS Quality Control Program** - A CEMS quality control program which is equivalent to the requirements of 40 CFR 60.13 and 40 CFR 60, Appendix F shall be implemented for the CEMS.
(9 VAC 5-80-850, 9 VAC 5-40-40 F and 9 VAC 5-40-7670)
36. **Reports** - The permittee shall submit reports to the Director, Valley Regional Office, within 90 days after the end of each semi-annual period ending June 30 and December 31. Each report shall contain, at minimum, the dates included in the semi-annual period and the following, reported separately for each unit (rotary kiln (U5) and calcimatic kiln (U12)):
Monthly emissions calculations (or summary of CEMS measurements, as applicable) for PM, SO₂ and NO_x to verify compliance with the lbs/hr and lbs/tsf emissions limitations in Conditions 22, 23, and 24.
(9 VAC 5-80-850 and 9 VAC 5-40-7680)

BART GENERAL CONDITIONS

37. **Relationship to Other Requirements** - Except to the extent that conditions in this permit may be more stringent, this permit does not supersede or replace any other valid permit, regulatory or statutory requirement. Furthermore, this approval to operate shall not relieve O-N Minerals (Chemstone) Company of the responsibility to comply with all other local, state and federal regulations, including permit regulations.
(9 VAC 5-80-800 D, 9 VAC 5-80-820 F and 9 VAC 5-40-7580)
38. **Federal Enforceability** - Once the permit is approved by the U.S. Environmental Protection Agency into the Commonwealth of Virginia State Implementation Plan, the permit is enforceable by EPA and citizens under the federal Clean Air Act.
(9 VAC 5-80-800 C.2, 9 VAC 5-80-820 F and 9 VAC 5-40-7580)
39. **Permit Modification** - The Board may revise (modify, rewrite, change or amend) or repeal this permit with the consent of O-N Minerals (Chemstone) Company, for good cause shown by O-N Minerals (Chemstone) Company, or on its own motion provided approval of the revision or repeal is accomplished in accordance with Regulations of the Board and the Administrative Process Act (§ 2.2-4000 et seq.). Such revision or repeal shall not be effective until the revision or repeal is approved by the U.S. Environmental Protection Agency following the requirements of 40 CFR Part 51 (Requirements for Preparation, Adoption and Submittal of Implementations Plans).
(9 VAC 5-80-960, 9 VAC 5-80-1000 and 9 VAC 5-40-7710)

40. **Failure to Comply** - Failure by O-N Minerals (Chemstone) Company to comply with any of the conditions of this permit shall constitute a violation of a Permit of the Board. Failure to comply may result in a Notice of Violation and civil penalty. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of orders as appropriate by the Board as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
(9 VAC 5-80-820 F, 9 VAC 5-80-910, 9 VAC 5-80-1010 and 9 VAC 5-40-7640)

41. **BART Determination Criteria: Operation and Maintenance** – O-N Minerals (Chemstone) Company shall maintain the control equipment required by this permit and establish procedures to ensure such equipment is properly operated and maintained.
(9 VAC 5-80-800 and 9 VAC 5-40-7590)

SOP GENERAL CONDITIONS

42. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9 VAC 5-170-130 and 9 VAC 5-80-850)

43. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Director, Valley Regional Office, of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Valley Regional Office, in writing.
(9 VAC 5-20-180 C, 9 VAC 5-80-850 and 9 VAC 5-40-7700)
44. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-850)
45. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
(9 VAC 5-50-20 E and 9 VAC 5-80-850)
46. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:
- a. Knowingly makes material misstatements in the permit application or any amendments to it;
 - b. Fails to comply with the terms or conditions of this permit;
 - c. Fails to comply with any emission standards applicable to a permitted emissions unit;
 - d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
 - e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted; or
 - f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.
- (9 VAC 5-80-1010)

47. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Valley Regional Office, of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-940)
48. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)