



NRO-024-13

COMMONWEALTH of VIRGINIA

Douglas W. Domenech
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE
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 31, 2013

Mr. Billie Haggard
Senior Vice President, Eastern Region General Manager
CoreSite Real Estate 12100 Sunrise Valley Dr, LLC
12100 Sunrise Valley Dr
Reston, Virginia 20191

Registration No.: 72296

Dear Mr. Haggard:

Attached is a permit to modify and operate a computer network operations facility located at 12100 Sunrise Valley Drive, in Reston, Virginia. This permit is issued in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board's (Board) Regulations for the Control and Abatement of Air Pollution (Regulations). This permit supersedes your permit dated November 23, 2011. This permit contains legally enforceable conditions. Please read all permit conditions carefully as failure to comply may result in appropriate enforcement and/or civil penalties.

In the course of evaluating the application and arriving at a final decision, the Department of Environmental Quality (DEQ) deemed the application complete on November 13, 2012.

This permit approval to modify and operate shall not relieve CoreSite Real Estate 12100 Sunrise Valley Dr, LLC of the responsibility to comply with all other local, state, and federal permit regulations. Please note that all permitted engine-generator sets on site (Ref. No. 1 through 4 and EG-13 through EG-15, and EG-16 through EG-28) are affected emission units under 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT) Subpart ZZZZ and the proposed engine-generator sets (Ref. No. EG-13 through EG-15 and EG-16 through EG-28) are affected facilities under 40 CFR 60, New Source Performance Standard (NSPS) Subpart IIII. Each unit is required to comply with certain federal emission standards and operating limitations over the useful life of the unit. The DEQ advises you, as the owner/operator of the units, to review the NSPS and MACT to ensure compliance with applicable emission standards, operational limitations, and the monitoring, notification, reporting and recordkeeping requirements. Applicable notifications shall be sent to EPA, Region III. Both the NSPS and MACT can be found at www.ecfr.gov.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code (VAC) 5-170-200 provide that you may request a formal hearing from this case decision by filing

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a petition with the Board within thirty days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-200 also provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty 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 of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact the regional office at 703.583.3858.

Sincerely,


James B. LaFratta
Regional Air Permit Manager

TAF/JBL/TMV/13-024-mnsr

Attachments: Permit
Source Testing Report Format

cc: Manager/Inspector, Air Compliance
File



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David K. Paylor
Director

Thomas A. Faha
Regional Director

STATIONARY SOURCE PERMIT TO MODIFY AND OPERATE

This permit includes designated equipment subject to New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT)

This permit supersedes your permit dated November 23, 2011.

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

CoreSite Real Estate 12100 Sunrise Valley Dr, LLC
12100 Sunrise Valley Dr.
Reston, VA
Registration No.: 72296

is authorized to modify and operate

a computer network operations facility

located at

12100 Sunrise Valley Drive
Reston, Fairfax County, VA 20191

in accordance with the Conditions of this permit.

Approved as amended on: January 31, 2013

Thomas A. Faha,
Regional Director

Permit consists of 14 pages.
Permit Conditions 1 to 31.

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INTRODUCTION

This permit approval is based on the permit application submitted by CoreSite Real Estate 12100 Sunrise Valley Drive, LLC ("CoreSite") dated September 7, 2012 and a revised application dated October 23, 2012. 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 5-80-1110 (definitions) and 9 VAC 5-10-20 of the State Air Pollution Control Board's (Board) Regulations for the Control and Abatement of Air Pollution (Regulations). 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 Department of Environmental Quality (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 either be 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 to be constructed:			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
EG-16 thru EG-20	Five (5) Caterpillar diesel fired engine generator sets, Model # 3516C	2,000 kW _e (2937 bhp) each	9 VAC 5-50-410 and 9 VAC 5-60-100
EG-21 thru EG-28	Eight (8) Caterpillar diesel fired engine generator sets, Model # 3516C-HD	2,500 kW _e (3634 bhp) each	9 VAC 5-50-410 and 9 VAC 5-60-100

Equipment permitted prior to this permit:			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
1, 2, 3, and 4	Four (4) Caterpillar diesel-fired engine generator sets, Model # 3516	2200 kW _e each	9 VAC 5-60-100
EG-13 thru EG-15	Three (3) Caterpillar diesel fired engine generator sets, Model # 3516C	2,000 kW _e (2937 bhp) each	9 VAC 5-50-410 and 9 VAC 5-60-100

Equipment exempt from air permitting:			
Reference No.	Equipment Description	Rated Capacity	Exemption Citation
9 and 10	Two (2) natural gas-fired boilers	2.1 million Btu/hr each	9 VAC 5-80-1105 B.1.
11 and 12	Two (2) natural gas-fired water heaters	0.25 million Btu/hr each	9 VAC 5-80-1105 B.1.

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit unless the specifications are needed to form the basis for one or more of the other terms or conditions in the permit. (9 VAC 80-1180 D 3)

2. **Emission Controls** - Emissions from the engine-generator sets (Ref. No. EG-13 through EG-28) shall be controlled by the following:
 - a. Nitrogen oxides (as NO₂) emissions from the engine-generator sets shall be controlled by electronic fuel injection, turbocharger, and after cooler.
 - b. Sulfur Dioxide (SO₂) emissions from the engine-generator sets shall be controlled by the use of low sulfur diesel fuel oil with a sulfur content not to exceed 0.0015% by weight (15 ppm).
 - c. Proper combustion for and visible emissions from the engine-generator sets shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer's recommendations.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

3. **Monitoring Devices** - Each engine-generator set (Ref. No. 1 through 4 and EG-13 through EG-28) shall be equipped with a non-resettable hour meter which measures the duration of time that an engine is operated. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the engines are operating. The non-resettable hour meter used to continuously measure the hours of operation for each engine-generator set shall be observed by the permittee with a frequency of not less than once

each day the engine-generator set is operated. The permittee shall maintain a log of these observations.
(9 VAC 5-80-1180 D and 9 VAC 5-50-20 C)

OPERATING LIMITATIONS

4. Emergency Power Generation – The engine-generator sets (Ref. No. 1 through 4 and EG-13 through EG-28 shall only be operated in the following modes:

- a. In situations that arise from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:
 - i. A failure of the electrical grid;
 - ii. On-site disaster or equipment failure; or
 - iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.
- b. For participation in an ISO-declared emergency, where an ISO emergency is:
 - i. An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;
 - ii. Capacity deficiency or capacity excess conditions;
 - iii. A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;
 - iv. Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or
- c. For periodic maintenance, testing, and operational training..

When changing from Emergency Power Generation to Non-Emergency (Alternate) Power Generation, the permittee shall submit appropriate documentation to the Department of Environmental Quality (DEQ), and receive DEQ approval for the change in the method of operation of the engine-generator set to ensure that the facility remains in compliance with the appropriate permitting requirements.

Total emissions for any twelve month period, calculated as the sum of all emissions from operations under scenarios 4.a. through 4.c above, shall not exceed the annual emission limits stated in Condition 10.
(9 VAC 5-80-1180 D)

5. **Operation of the engine-generator Set** - The permittee shall operate and maintain each engine-generator set (Ref. No. 1 through 4 and EG-13 through EG-28) according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not increase air emissions.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
6. **Operating Hours** - In addition to the annual emission limits specified in Condition 10, each engine-generator set (Ref. No. 1 through 4 and EG-13 through EG-28) shall not operate more than 500 hours per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12 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 11 months.
(9 VAC 5-80-1180)
7. **Fuel Specifications** - The approved fuels for the equipment on site are specified below:
 - a. The approved fuel for the engine-generator sets (Ref. No. 1 through 4 and EG-13 through EG-28) is:

DIESEL FUEL OIL:
 - i. Does not exceed the American Society for Testing and Materials (ASTM) specification, D975, for grade ultra low sulfur 2-D or grade 2-D S15, or,
 - ii. Has a maximum sulfur content not to exceed 0.0015% by weight (15 ppm), and either a minimum cetane number of forty or maximum aromatic content of thirty-five volume percent.
 - b. The approved fuel for the boilers and hot water heaters (Ref. No. 9-12) is natural gas.

A change in the fuel type or the fuel sulfur content may require a permit to modify and operate.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
8. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the diesel fuel oil was received;
 - c. The quantity of diesel fuel oil delivered in the shipment;
 - d. The sulfur content of the diesel fuel oil; and
 - e. A statement that the diesel fuel oil conforms to the requirements of the Condition 7 - Fuel Specification; or

- f. Alternatively, the permittee shall obtain approval from the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO) if other documentation will be used to certify the diesel fuel oil type.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by the DEQ, may be used to determine compliance with the fuel specifications stipulated in Condition 7.

(9 VAC 5-170-160 and 9 VAC 5-80-1180)

EMISSION LIMITS

9. **Emission Limits: Engine-generator sets** - Hourly emissions from the operation of each engine-generator set shall not exceed the limits specified below:

	<u>Ref. No. 1-4</u>	<u>EG-13 thru EG-20*</u>	<u>EG-21 thru EG-28*</u>
Nitrogen Oxides (as NO ₂)	63.0 lbs/hr	38.8 lbs/hr	48.02 lbs/hr
Carbon Monoxide (CO)	5.60 lbs/hr	3.95 lbs/hr	6.01 lbs/hr
Sulfur Dioxide (SO ₂)	4.30 lbs/hr	0.04 lbs/hr	0.05 lbs/hr
Volatile Organic Compounds (VOC)	1.10 lbs/hr	1.13 lbs/hr	1.20 lbs/hr

* NO₂ – Upon DEQ verification of the initial performance test, the facility has the option of using a lower emission rate (average of three one-hour test runs x 120%) by undergoing a permit amendment to incorporate the new lower rate.

The hourly emissions are derived from manufacturer's data and DEQ approved data at maximum or other design capacity of the diesel engines. Compliance with the hourly emission limit may be based on testing, if required by DEQ.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

10. **Annual Emission Limits** - Total emissions from the facility shall not exceed the limits specified below:

Nitrogen Oxides (as NO ₂)	49.4 tons/yr
Carbon Monoxide (CO)	7.7 tons/yr
Volatile Organic Compounds (VOC)	1.6 tons/yr
Sulfur Dioxide (SO ₂)	2.1 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of

the exceedance of emission limits. Compliance with these emission limits shall be determined by calculation methods as stated in Condition 11.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

- 11. Annual Emission Calculation** - Subsequent to the issuance of this permit, the nitrogen dioxide annual emissions shall be calculated in the following way:

NO₂ emissions (tons/year) =

$$[(\text{Total hours of operation of the engine-generator sets (Ref. No. 1 through 4)/year}) \times (3.15 \times 10^{-2} \text{ ton/hr})] + [(\text{million cubic feet, } 10^6 \text{ ft}^3, \text{ of natural gas burned by the boilers and hot water heaters / year}) \times (0.05 \text{ ton NO}_x / 10^6 \text{ ft}^3)] + [(\text{Total hours of operation of the engine-generator sets (Ref. No. EG-13 through EG-20)/year}) \times (1.94 \times 10^{-2} \text{ ton/hr})] + [(\text{Total hours of operation of the engine-generator sets (Ref. No. EG-21 through EG-28)/year}) \times (2.40 \times 10^{-2} \text{ ton/hr})]$$

The annual NO₂ emissions shall be calculated monthly as the sum of the most recent twelve months. Refer to Condition 19 for record keeping requirements to demonstrate compliance with this condition.
(9 VAC 5-80-1180)

- 12. Visible Emission Limit** - Visible emissions from each engine generator set (Ref. No. 1 through 4) and boiler shall not exceed twenty percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-80 and 9 VAC 5-50-260)

- 13. Visible Emission Limit** - Visible emissions from the engine-generator sets (Ref. No. EG-13 through EG-28) shall not exceed five percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

During start-up and shut-down times, visible emissions from the generators (Ref. No. EG-13 through EG-28) shall not exceed ten percent except during one six-minute period in any one hour in which visible emissions shall not exceed twenty percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-1180, 9 VAC 5-50-260 and 9 VAC 5-50-80)

INITIAL COMPLIANCE DETERMINATION

- 14. Testing Verification Meeting** - The permittee shall arrange to meet with the Regional Air Compliance Manager of the DEQ's NRO to discuss the stack testing required by Condition 15. The meeting shall take place prior to the submittal of the final stack test protocol and is required in order for the protocol to be accepted.
(9 VAC 5-80-1180)

15. **Performance Testing** - Initial performance tests shall be conducted on one of the eight engine-generator sets (Ref. No. EG-21 through EG-28) for nitrogen oxides (as NO₂) and carbon monoxide (using EPA Reference Method 7 or 7E and Method 10, respectively) to determine compliance with the emission limits contained in Condition 9.
- a. Emissions testing of each pollutant for each selected engine-generator set shall consist of three one-hour test runs under load. The average of the three runs shall be reported as the short-term emission rate for that engine-generator.
 - b. Testing shall be conducted with the engines operating at greater than 90 percent electrical capacity, unless multiple load band testing is approved by DEQ during the Testing Verification Meeting required by Condition 14.
 - c. Recorded information shall include, but not be limited to:
 - i. Generator load/kilowatt output;
 - ii. Fuel consumption and fuel sulfur content of the fuel oil;
 - iii. NO_x (as NO₂) and CO emission rate as determined by the reference method.
 - d. The tests shall be performed, reported, and demonstrate compliance within sixty days after achieving maximum power demand rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30.
 - e. The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO. The permittee shall submit two copies, one paper copy and one on removable electronic media, of the test protocol to the Regional Air Compliance Manager of the DEQ's NRO at least thirty days prior to testing to ensure adequate time for DEQ approval. If the test protocol is received by the DEQ with less than thirty days for review and acceptance, DEQ approval may not be issued in a timely manner to allow for testing to take place according to the permittee's schedule.
 - f. Should conditions occur which would require rescheduling the testing, the permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO in writing, within seven days of the scheduled test date or as soon as the rescheduling is deemed necessary.
 - g. Two copies, one paper copy and one on removable electronic media, of the test results shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO within sixty days after test completion and shall conform to the test report format enclosed with this permit.

CONTINUING COMPLIANCE DETERMINATION

16. **Stack Tests** - Upon request by the DEQ, the permittee shall conduct additional performance tests to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G)
17. **Visible Emissions Evaluation** - Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.
(9 VAC 5-80-1200 and 9 VAC 5-50-30 G).
18. **Testing/Monitoring Ports** - The facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested by the DEQ and safe sampling platforms and access shall be provided.
(9 VAC 5-50-30 F and 9 VAC 5-80-1180)

RECORDS

19. **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 Regional Air Compliance Manager of the DEQ's NRO at the following address:

Regional Air Compliance Manager/Air Permit Manager
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

These records shall include, but are not limited to:

- a. The amount of natural gas burned by the boilers and hot water heaters in million cubic feet per year, calculated monthly as the sum of each consecutive twelve month period.
- b. Annual hours of operation of each engine-generator set Ref. No. 1 through 4 and EG-13 through EG-28 calculated monthly as the sum of each consecutive twelve month period.
- c. The total amount of nitrogen oxides, calculated as NO₂, emitted from the facility, calculated monthly as the sum of each consecutive twelve month period, using the calculation methods in Condition 11 to verify compliance with the ton/yr emissions limitation in Condition 10.

- d. A log of the observations from the monitoring systems to demonstrate compliance with Condition 3.
- e. A record of the date, reason engines operated (as defined in Condition 4), and engine run time for each engine (Ref. No. 1 through 4 and EG-13 through EG-28)
- f. All fuel supplier certifications, as required in Condition 8.
- g. Scheduled and unscheduled maintenance, and operator training in accordance with Condition 25.
- h. All stack tests, visible emission evaluations and performance evaluations.

Compliance for the consecutive twelve-month period referenced in subsections a, b, and c above 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.

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)

20. **Emission Statement** - The owner of a stationary source emitting twenty-five tons per year or more of volatile organic compounds or nitrogen oxides shall submit a completed emission statement to the Regional Air Compliance Manager of the DEQ's NRO by April 15th of each year for the emissions discharged during the previous calendar year. The emission statement shall be prepared and submitted in the appropriate format.
(9 VAC 5-50-50 and 9 VAC 5-170-160)

NOTIFICATIONS

21. **Initial Notifications** - The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO of:
- a. The actual date on which construction of each engine-generator set (Ref. No. EG-16 through EG-28) commenced within thirty days after such date. The notification shall include the following:
 - i. Name and address of the permittee;
 - ii. The address of the affected source;
 - iii. Engine information including make, model, engine family, serial number, model year, maximum engine power and engine displacement; and
 - iv. Fuel used.

- b. The anticipated start-up date of each engine-generator set, (Ref. No. EG-16 through EG-28), postmarked not more than sixty days nor less than thirty days prior to such date.
- c. The actual start-up date of each engine-generator set (Ref. No. EG-16 through EG-28) within fifteen days after such date. The actual start-up date shall be the date on which each engine completes manufacturer's trials, but shall be no later than thirty days after start-up for manufacturer's trials.
- d. The anticipated date of performance tests of each engine-generator set (Ref. No. EG-16 through EG-28) postmarked at least thirty days prior to such date.

(9 VAC 5-50-50 and 9 VAC 5-80-1180)

GENERAL CONDITIONS

22. Permit Invalidity - The portions of this permit to modify and operate that pertain to the construction of engine-generator sets EG-16 through EG-28 shall become invalid, unless an extension is granted by the DEQ, if:

- a. A program of continuous construction is not commenced within the latest of the following:
 - i. Eighteen months from the date of this permit;
 - ii. Nine months from the date that the last permit or other authorization was issued from any other governmental entity;
 - iii. Nine months from the date of the last resolution of any litigation concerning any such permits or authorization; or
- b. A program of construction is discontinued for a period of eighteen months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

(9 VAC 5-80-1210)

23. Permit Suspension/Revocation - The Board may suspend or revoke any permit 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 an emissions unit included in this permit;

- d. Causes emissions from the stationary source which result in violations of, or interfere with the attainment and maintenance of, any ambient air quality standard; or fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the implementation plan in effect at the time that an application is submitted; or
 - e. Fails to comply with the applicable provisions of 9 VAC 5-80-1100 et seq.
- (9 VAC 5-80-1210 F and 9 VAC 5-80-1210 G)

24. 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 5-80-1180)

25. Maintenance/Operating Procedures - At all times, including periods of startup, shutdown, 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 Regional Air Compliance Manager of the DEQ's NRO which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.

- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20 E and 9 VAC 5-80-1180 D)

26. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shut-down or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. The records shall be maintained in a form suitable for inspection and maintained for at least two years (unless a longer period is specified in the applicable emission standard) following the date of occurrence. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause of malfunction), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-20-180 J and 9 VAC 5-80-1180 D)
27. **Notification for Facility or Control Equipment Malfunction** - 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 facsimile transmission, telephone, electronic communication, or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the facility or control 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 and 9 VAC 5-80-1180)
28. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO in case of shutdown or bypassing, or both, of air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour. The intent to shut down or bypass such equipment shall be reported to the Regional Air Compliance Manager of the DEQ's NRO and local air pollution control agency, if any, at least twenty-four hours prior to the planned shutdown. Such prior notice shall include, but is not limited to the following information:
- a. Identification of air pollution control equipment to be taken out of service, as well as its location and registration number;
 - b. The expected length of time that the air pollution control equipment will be out of service;

- c. The nature and quantity of emissions of air pollution likely to occur during the shutdown period; and
- d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-20-180 B)

29. **Violation of Ambient Air Quality Standard** - Regardless of any other provision of this permit, the permittee shall, upon request of the DEQ, reduce the level of operation of the facility if the DEQ determines that is necessary to prevent a violation of any primary ambient air quality standard. Under worst case conditions, the DEQ may order that the permittee shut down the facility, if there is no other method of operation to avoid a violation of the ambient air quality standard. The DEQ reserves the right to prescribe the method of determining if a facility will cause such a violation. In such cases, the facility shall not be returned to operation until it and the associated air pollution control equipment are able to operate without violation of any primary ambient air quality standard.

(9 VAC 5-20-180 I)

30. **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 Regional Air Compliance Manager of the DEQ's NRO of the change of ownership within thirty days of the transfer.

(9 VAC 5-80-1240 B)

31. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.

(9 VAC 5-80-1180)

SOURCE TESTING REPORT FORM T

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
 - a. Operating rate
 - b. Test Methods
 - c. Pollutants tested
 - d. Test results for each run and the run average
 - e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section. Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

*Not applicable to visible emission evaluations