



NRO-255-11

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

September 19, 2011

Ms. Alicia O'Neil Knight
The George Washington University
Technology and Science Campus
2025 F street NW, Suite 215D
Washington, DC 20052

Location: Ashburn
Registration No.: 73950

Dear Ms. O'Neil Knight:

Attached is a minor permit to construct and operate three emergency generators at VSTC Enterprise Hall in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board's (Board's) Regulations (Regulations) for the Control and Abatement of Air Pollution.

This permit contains legally enforceable conditions. Failure to comply may result in appropriate enforcement. Please read all permit conditions carefully.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on August 2, 2011.

This permit approval to modify and operate shall not relieve The George Washington University of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within thirty days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-200 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:

Event	Date	Initials
Code: PMWSR	9-20-2011	TV
Scanned		
QC		


Ms. Alicia O'Neil Knight
The George Washington University
September 19, 2011
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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,



for Terry H. Darton
Regional Air Permit Manager

TAF/THD/TMV/11255mnsr.doc

Attachments: Permit
Source Testing Report Format

cc: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Regional Air Compliance Manager (electronic file submission)



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STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

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

The George Washington University
2025 F St. NW, Suite 215D
Washington, DC 20052
Registration No.: 73950

is authorized to construct and operate

One academic and administrative building with three emergency
generators

to be located at

Virginia Science and Technology Campus (VSTC)
44983 Knoll Square Drive
Ashburn, Virginia 20147

in accordance with the Conditions of this permit.

Approved on

September 19, 2011


Thomas A. Faha,
Regional Director

Permit consists of 12 pages.
Permit Conditions 1 to 23.

INTRODUCTION

This permit approval is based on the permit application dated June 28, 2011. 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 and 9 VAC 5-10-10 of the Commonwealth of Virginia State Air Pollution Control Board's (Board's) Regulations (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 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 Board's 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 at this facility consists of the following:

Equipment to be Constructed				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Installation Date
3	Caterpillar Diesel Engine Generator Set Model C18 DITA	900 bhp / 600 kW	NA	2011

Equipment to be Operated				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Installation Date
1	Kohler Diesel Engine Generator Set Model 250ROZD71	375 bhp / 250 kW	NA	1991
2	Caterpillar Diesel Engine Generator Set Model SR4	685 bhp / 450 kW	NA	2003

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)

OPERATING LIMITATIONS

2. Operating Scenarios for Diesel Engine Generator Sets –

a. Emergency / Critical Power Generation

- i. **Emergency:** The engine generator sets may be operated in situations where immediate action on the part of the facility is needed due to a failure or loss of electrical power service resulting from a failure of the primary power provider and the failure or loss of power service is beyond the reasonable control of the facility. Operation under these circumstances shall be allowed for the period of time the primary electrical power provider service is unavailable. Once primary electrical power provider service is available the engine-generator sets may be operated in accordance with Critical Power Generation as defined below:
- ii. **ISO Declared Emergency:** The engine generator sets may be operated for participation in an Independent System Operator's (ISO) Emergency Load Response Program (ELRP) during times of an ISO declared emergency, as defined in the ISO's emergency operations manual. Operations under this scenario shall not exceed 60 hours per generator each calendar year.
- iii. **Critical Power Generation:** The engine-generator sets may be operated in situations where immediate action on the part of the facility is needed due to a loss or anticipated loss of acceptable electrical power service from the primary provider and the loss or anticipated loss of power service is beyond the reasonable control of the facility. Operation under these circumstances shall be allowed until such time as acceptable power provider service is restored or the loss of acceptable power provider service is no longer reasonably anticipated.

- b. **Alternate Power Generation:** Except as specified in subsection 2.c below, an engine-generator set may be operated voluntarily for the purposes of peak-shaving, demand response, or as part of an interruptible power supply arrangement with a power provider, other market participant, or system operator if the engine is equipped with a selective catalytic reduction system (SCR) that achieves the manufacturer's guaranteed maximum emission reductions based on fuel type. Operations, as outlined in this subsection, shall be allowed when the engine-generator sets are operating at a load level necessary to sustain urea injection. Prior to construction of the SCR unit, when changing from Emergency Power or Critical Power Generation to 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 sets.

- c. The engine-generator sets may be operated for periodic maintenance, testing, and operational training.

Total emissions for any twelve month period, calculated as the sum of all emissions from operations under scenarios 2.a. through 2.c above, shall not exceed the limits stated in Condition 10.

(9 VAC 5-80-1180 D)

3. **Monitoring – Engine Operating Hours:** Each engine-generator set (Ref. #'s 1-3) shall be equipped with a non-resettable hour meter which measures the duration of time that each engine is operated.

Operation Log: A monthly operation log shall be maintained and shall include, at a minimum, the following information:

- i. Engine run hours (including idle time);
- ii. Date and reason for operation as defined in Condition 2.

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 engines are operating.

(9 VAC 5-80-1180 D, 9 VAC 5-50-20 C, and 9 VAC 5-50-260)

4. **Monitoring Device Observation** - To ensure good performance, the monitoring devices used to measure operating hours shall be observed by the permittee at a minimum frequency of once per day during days in which the engine-generator sets are called into service and shall be observed during engine operation. Refer to Condition 14 for record keeping requirements to demonstrate compliance with this condition.

(9 VAC 5-80-1180)

5. **Emission Controls** - Emissions from the engine-generator sets shall be controlled by the following:

- a. Sulfur Dioxide (SO₂) emissions from the engine-generator sets (Ref. #'s 1-2) shall be controlled by the use of low sulfur diesel fuel oil with a sulfur content not to exceed 0.05% by weight for all fuel deliveries.
- b. Sulfur Dioxide (SO₂) emissions from the engine-generator sets (Ref. # 3) shall be controlled by the use of ultra low sulfur diesel fuel oil with a sulfur content not to exceed 0.0015% by weight for all fuel deliveries.
- c. Combustion and visible emissions from the diesel engine-generator sets (Ref. #'s 1-3) shall be controlled by the use of good operating practices and performing maintenance in accordance with the manufacturer recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and do not degrade the air emissions from the engines.

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

6. **Operational Limitation** – Each diesel engine-driven emergency generator (Ref. #'s 1-3) shall not operate more than 500 hours per year for each unit, calculated monthly as the sum of each consecutive 12-month period.

(9 VAC 5-80-1100)

7. **Fuel Specification** - The approved fuel for the generators (Ref. # 1-2) is low sulfur diesel fuel oil. The approved fuel for the generator (Ref # 3) is ultra low sulfur diesel fuel oil. The diesel fuel oil shall meet the specifications below:

LOW SULFUR DIESEL FUEL OIL:

- a. Does not exceed the American Society for Testing and Materials (ASTM) specification, D975, for grade low sulfur 2-D or S500, or,
- b. Has a maximum sulfur content not to exceed 0.05% by weight (500 ppm), and either a minimum cetane number of forty or maximum aromatic content of thirty-five volume percent.

ULTRA LOW SULFUR DIESEL FUEL OIL:

- a. Does not exceed the American Society for Testing and Materials (ASTM) specification, D975, for grade low sulfur 2-D or S15, or,
- b. 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.

Exceedance of these specifications may be considered credible evidence of an exceedance of emission limits. 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. A statement that the distillate oil complies with the requirements of Condition 7 Fuel Specification, or;
 - e. Alternately, the permittee shall obtain approval from the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO), at the address in Condition 15, 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 5-80-1180)

EMISSION LIMITS

9. **Process Emission Limits** - Emissions from the operation of the emergency generators (Ref. # 1-3) shall not exceed the limits specified below:

Pollutant	GENERATOR 1	GENERATOR 2	GENERATOR 3
PM - 10	0.90 lbs/hr	1.35 lbs/hr	0.26 lbs/hr
Volatile Organic Compounds	1.05 lbs/hr	1.56 lbs/hr	0.53 lbs/hr
Sulfur Dioxide	0.15 lbs/hr	0.22 lbs/hr	0.02 lbs/hr
Nitrogen Oxides (as NO ₂)	12.8 lbs/hr	19.1 lbs/hr	11.89 lbs/hr
Carbon Monoxide	2.76 lbs/hr	4.12 lbs/hr	4.63 lbs/hr

These emissions are derived from the manufacturer "not to exceed" data at maximum design capacity of the diesel engines and operating limits to determine the overall emission contribution. Compliance with the sulfur dioxide emissions limit shall be based on the fuel sulfur content and the fuel supplier certification, as stated in Condition 8. Compliance with the other pollutant limits shall be based on the proper operation and maintenance of the diesel engines or by testing, if required. Exceedance of the operating limits may be considered credible evidence of the exceedance of the emission limits.
 (9 VAC 5-80-1180)

10. **Annual Engine Generator Emission Limits** – Total emissions from all engine generator sets (Ref. # 1-3) combined shall not exceed the limits specified below:

	Total
Nitrogen Oxides (as NO ₂)	10.95 tons/yr
Carbon Monoxide (CO)	2.88 tons/yr
Volatile Organic Compounds (VOC)	0.79 tons/yr
Particulate Matter (PM-10)	0.63 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)

11. **Annual Emissions Calculations** – The total annual emissions of each regulated pollutant from the diesel engine-generator sets (Ref. # 1-3) shall be calculated monthly as the sum of each consecutive twelve-month period. Refer to Condition 14 for record keeping requirements to demonstrate compliance with this condition.

- a. Emission Calculations: Monthly emissions for each pollutant shall be calculated using the following equations using the appropriate emission factors (EF) from Condition 9.

$NO_x^* = \{(Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 1 \times EF\ in\ Condition\ 9) + (Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 2 \times EF\ in\ Condition\ 9) + (Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 3 \times EF\ in\ Condition\ 9)\} + 2000\ lbs/ton$

$CO = \{(Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 1 \times EF\ in\ Condition\ 9) + (Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 2 \times EF\ in\ Condition\ 9) + (Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 3 \times EF\ in\ Condition\ 9)\} + 2000\ lbs/ton$

$SO_2 = \{(Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 1 \times EF\ in\ Condition\ 9) + (Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 2 \times EF\ in\ Condition\ 9) + (Total\ monthly\ hours\ of\ operation\ for\ Generator\ Ref.\ \# 3 \times EF\ in\ Condition\ 9)\} + 2000\ lbs/ton$

* The facility may opt to conduct stack testing to establish a lower NO_x emission rate, provided the DEQ approves the test protocol in advance. A permit amendment is required to incorporate the new lower rate.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

12. **Visible Emission Limit** - Visible emissions from each emergency generator (Ref. # 1-3) 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 the EPA Method 9 (reference 40 CFR 60, Appendix A). During startup and shutdown, visible emissions from each emergency generator (Ref. # 1-3) shall not exceed thirty percent opacity, except for one six-minute interval not to exceed sixty 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 5-170-160)

13. **Emissions Testing** - The emergency generators (Ref. # 1-3) 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 at the appropriate locations in accordance with EPA Reference Method 1 (reference 40 CFR Part 60, Appendix A). In addition, safe sampling platforms and access shall be provided.
(9 VAC 5-50-30 F and 9 VAC 5-80-1180)

RECORDS

14. **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 Air Compliance Manager, Northern Regional Office at the address listed in Condition 15. These records shall include, but are not limited to:

- a. A monthly log of the monitoring device observations as required by Condition 4.
- b. A monthly summary table for the engine-generator sets (Ref. # 1-3) to include:

- i. Engine hours
 - ii. Total engine hours on a rolling 12 month basis.
 - iii. Reasons for operating as defined in Condition 2.
- c. Annual hours of operation of each diesel engine-driven emergency generator (Ref. # 1-3), calculated monthly as the sum of each consecutive 12-month period.
- d. Monthly and annual emissions calculations for NO_x (as NO₂), CO, VOC, from the engine-generator sets (Ref. # 1-3) to verify compliance with the ton/yr emissions limitations in Condition 10.
- e. All fuel supplier certifications.
- f. Results of all stack tests and visible emission evaluations.
- g. A copy of the maintenance schedule and records of scheduled and unscheduled maintenance in accordance with Condition 19.
- h. Operator training in accordance with Condition 19.
- i. Records of the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer.
- j. Records of changes in settings that are permitted by the manufacturer of the engine-generator sets.
- k. For engine generator sets (Ref. # 1-3), maintain records of:
- i. Maintenance conducted on each engine.
 - ii. Documentation from the manufacturer that the engines (Ref # 1-3) are certified to meet the emission standards.

Compliance for the consecutive 12-month period in subsections b, c, and d 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.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years, unless otherwise noted.
(9 VAC 5-80-1180 and 9 VAC 5-50-50)

RECORDS AND NOTIFICATIONS

15. **Correspondence** – All correspondence concerning this permit shall be submitted to the following address:

Regional Air Compliance Manager
Department of Environmental Quality
Northern Regional Office

13901 Crown Court
Woodbridge, VA 22193

(9 VAC 5-50-50)

GENERAL CONDITIONS

16. Certification of Documents -

- A. The following documents submitted to the board shall be signed by a responsible official: (i) any emission statement, application, form, report, or compliance certification; (ii) any document required to be signed by any provision of the regulations of the board; or (iii) any other document containing emissions data or compliance information the owner wishes the board to consider in the administration of its air quality programs. A responsible official is defined as follows:
1. For a business entity, such as a corporation, association or cooperative, a responsible official is either:
 - a. The president, secretary, treasurer, or a vice president of the business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the business entity; or
 - b. A duly authorized representative of such business entity if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars) or (ii) the authority to sign documents has been assigned or delegated to such representative in accordance with procedures of the business entity.
 2. For a partnership or sole proprietorship, a responsible official is a general partner or the proprietor, respectively.
- B. Any person signing a document under subsection A above shall make the following certification:
- "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- C. Subsection B shall be interpreted to mean that the signer must have some form of direction or supervision over the persons gathering the data and preparing the document (the preparers), although the signer need not personally nor directly supervise these activities. The signer need not be in the same line of authority as the preparers, nor do the persons gathering the form need to be employees (e.g., outside contractors can be used). It is sufficient that the signer has authority to assure that the necessary actions are taken to prepare a complete and accurate document.

(9 VAC 5-20-230)

17. 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 a permitted emissions unit;
- 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)

18. 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)

- 19. 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.

The permittee shall take measures in order to minimize the duration and frequency of excess emissions, including the following:

- 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 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)

- 20. 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.
(9VAC 5-20-180 J and 9 VAC 5-80-1180 D)

- 21. Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Air Compliance Manager, Northern Regional Office at the address listed in Condition 15, 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 Air Compliance Manager, Northern Regional Office.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)

- 22. 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 Air Compliance Manager, Northern Regional Office at the address listed in Condition 15 of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)

- 23. 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 FORMAT

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