NRO-263-09

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

Preston Bryant
Secretary of Natural Resources

David K. Paylor
Director

August 28, 2009

Mr. Peter Bacenet
Vice President
VISA, Inc.
45005 Russell Branch Parkway,
Ashburn, Virginia 20147

Registration No.: 73643

Dear Mr. Bacenet:

Attached is a minor amendment to your permit to construct and operate multiple diesel engine driven generator sets at your data center facility located at 45005 Russell Branch Parkway, Ashburn, Virginia 20147. This minor amendment 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) and fulfills the control technology reassessment and notification requirements of Condition 15 for the installation of one engine-generator set (EG-6). This permit supersedes your permit dated February 25, 2009

This permit contains legally enforceable conditions and 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 July 13, 2009.

This amendment shall not relieve VISA, Inc. of the responsibility to comply with all other local, state, and federal permit regulations. It should be noted the proposed engine-generator sets (EG-1 thru EG-22 and OB-1) are affected facilities under 40 CFR 60, New Source Performance Standard (NSPS) Subpart IIII. Each engine is required to comply with certain federal emission standards and operating limitations over the useful life of the unit. As the owner/operator of the affected engines, the DEQ advises you to review the NSPS to ensure compliance with applicable emission standards, operational limitations, and the monitoring, notification, reporting and recordkeeping requirements.

Event	Date	Initials
Code: mNSR	8/28/9	EA
Scanned		
QC		

Applicable notifications shall be sent to EPA, Region III. The NSPS can be found at **http://ecfr.gpoaccess.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 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) 583-3800.

Sincerely,

Terry H. Darton
Regional Air Permit Manager

TAF/THD/EHA/09-263-mnsr

Attachments: Permit
Source Testing Report Format

cc: Director, OAPP (electronic file submission)
Manager/Inspector, Air Compliance
File

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Preston Bryant
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE
This permit includes designated equipment subject to New Source Performance Standards (NSPS)

This permit supersedes your permit dated February 25, 2009

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

VISA, Inc.
45005 Russell Branch Parkway
Ashburn, Virginia 20147
Registration No.: 73643

is authorized to modify and operate

a data center facility

located at

45005 Russell Branch Parkway
Ashburn, Virginia 20147

in accordance with the Conditions of this permit.

Approved on August 28, 2009

Thomas A. Faha
Regional Director

Permit consists of 20 pages.
Permit Conditions 1 to 29.

INTRODUCTION

This permit approval is based on the permit amendment request letter dated July 9, 2009 and permit amendment application dated November 17, 2008 with supplemental information dated January 27, 2009, and the permit amendment application dated March 3, 2008, with supplemental information dated September 5, 2008, and November 19, 2008, and permit application dated July 26, 2007, with supplemental information dated August 27, 2007, September 10, 2007, October 9, 2007, November 26, 2007, and December 17, 2007. 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 at this facility consists of the following:

Table 1.A Equipment to be Constructed and Operated

Ref. No.	Equipment Description	Rated Capacity	Add-On Control Technology	Federal Requirements
EG-1	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII

Table 1.A Equipment to be Constructed and Operated (cont)

Ref. No.	Equipment Description	Rated Capacity	Add-On Control Technology	Federal Requirements
EG-7	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-12	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-17	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-18	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-19	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-20	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-21	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-22	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
OB-1	One MTU Detroit Diesel, Model 16V2000 G84, Diesel fired engine-generator	1495 hp, generating 1000 ekW	N/A	40CFR60, Subpart IIII

Table 1.B Equipment to be Operated

Ref. No.	Equipment Description	Rated Capacity	Add-On Control Technology	Federal Requirements
EG-2	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-3	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-4	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII

Table 1.B Equipment to be Operated (cont)				
EG-5	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-6	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-8	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-9	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-10	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-11	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-13	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-14	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-15	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII
EG-16	One Detroit Diesel, Model 16V4000 G83, Diesel engine driven generator set	3058 hp, generating 2050 ekW	N/A	40CFR60, Subpart IIII

Table 1.C Equipment Exempt from Air Permitting				
Ref. No.	**Equipment Description**	**Rated Capacity**	**Exemption Citation**	**Exemption Date**
EG-1AT through EG-22AT	Twenty-two above ground storage tanks (AST) for diesel fuel oil	100 gallons each	9 VAC 5-80-1320B.8	12/21/07
UST-1 through UST-4	Four underground storage tanks (UST) for diesel fuel oil	50,000 gallons each	9 VAC 5-80-1320B.8	12/21/07
OB-1AT	One above ground storage tank for diesel fuel oil	2,000 gallons	9 VAC 5-80-1320B.8	2/4/09
OB-WH1	One propane-fired water heater	140,000 Btu/hr	9 VAC 5-80-1320B.1.c	2/4/09
OB-LPG-1	One LPG horizontal storage tank	1,000 gallons	9 VAC 5-80-1320B.4.a(1)	2/4/09

Table 1.C Equipment Exempt from Air Permitting (con't)				
FDS-AT	One above ground storage tanks for diesel fuel oil	100 Gallons	9 VAC 5-80-1320B.8	08/28/09

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 form the basis for conditions in the permit.
(9VAC 80-1180 D 3)

2. **Emission Controls** – Emissions from the engine-generator sets shall be controlled by the following;

   a. Nitrogen Oxides (as NO_2) emissions from the engine-generator sets (EG-1 thru EG-22) shall be controlled by the manufacturer's low NOx emission package.

   b. Nitrogen Oxides (as NO_2) emissions from the engine-generator set (OB-1) shall be controlled by good combustion practices.

   c. Sulfur Dioxide (SO_2) emissions from the engine-generator sets (EG-1 thru EG-22 and OB-1) shall be controlled by the use of diesel fuel oil with a sulfur content not to exceed 15 ppm (0.0015% by weight).

   d. Carbon Monoxide (CO) and volatile organic compound (VOC) emissions from the engine-generator sets (EG-1 thru EG-22 and OB-1) shall be controlled by good combustion practices.

   e. Visible emissions from the engine-generator sets (EG-1 thru EG-22 and OB-1) shall be controlled by the use of clean fuel and good operating practices.

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

3. **Monitoring Devices**

   a. Fuel Flow: Each engine-generator set (EG-1 thru EG-22) shall be equipped with a device to continuously measure and record individual fuel consumption (in gallons) for each engine-generator set.

   b. Engine Operating Hours: Each engine (EG-1 thru EG-22 and OB-1) shall be equipped with a non-resettable hour meter which measures the time duration that each engine is operated.

   c. Operating Log: A monthly operating log shall be maintained and shall include, at a minimum, the following information:

      (1) Engine run hours (including idle time);

(2) Fuel consumption; and

(3) Date and Reason for operation as defined in Condition 4.

Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the engines are operating.

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.
(9 VAC 5-80-1180 D)

OPERATING LIMITATIONS

4. **Operating Scenarios** - All engine-generator sets shall be operated in a manner consistent with the following modes of operation only:

   a. Emergency / Critical Power Generation:

      i. Emergency: The engine-generator sets (EG-1 thru EG-22 and OB-1) 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 the 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. The permittee shall submit notification to the Regional Air Permit Manager of the DEQ's NRO within thirty days of signing a contract to participate in the ELRP.

      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 4.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 set is operating at a load level necessary to sustain urea injection. Prior to construction of an SCR unit, when changing from Emergency Power or Critical Power Generation to Alternate Power Generation, the permittee shall submit appropriate documentation to the 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.

c. The engine-generator sets (EG-1 thru EG-22 and OB-1) 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 4.a. through 4.c. above shall not exceed the limits stated in Condition 9.
(9 VAC 5-80-1180 D)

5. **Operation of the Engine-Generator Sets** - The permittee must operate and maintain each engine-generator set and any control devices 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 impact on air emissions.
(9 VAC 5-80-1180)

6. **Fuel** - The approved fuel for each engine-generator set is diesel fuel and shall meet the specifications below:

   a. The diesel fuel oil shall not exceed the American Society for Testing and Materials (ASTM) specification, D975, for grade ultra low sulfur No. 2-D or Grade No. 2-D S15, or

   b. The diesel fuel oil shall have 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 percent by volume.

Exceedance of these specifications may be considered credible evidence of the 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)

7. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each purchased 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 diesel fuel oil conforms to the requirements of Condition 6 – Fuel Specification; or
   e. Alternatively, the permittee shall obtain approval from the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO) at the address referenced in Condition 18 if other documentation will be used to certify the diesel fuel type.

   (9 VAC 5-80-1180)

EMISSION LIMITS

8. **Short-term Emission Limits** - Emissions from the operation of the each engine-generator set, EG-1 thru EG-22, shall not exceed the limits specified below:

   Hourly Limit per engine:

Nitrogen Oxides (as NO_2)	40.0 lbs/hr
Carbon Monoxide (CO)	6.24 lbs/hr
Sulfur Dioxide (SO_2)	0.04 lbs/hr
Particulate Matter (PM_{10})	0.63 lbs/hr
Volatile Organic Compounds (VOC)	0.84 lbs/hr

   (9 VAC 5-80-1180)

9. **Facility wide Emission Limits** - Total annual emissions from the facility shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	58.0 tons/yr
Carbon Monoxide (CO)	33.0 tons/yr

Sulfur Dioxide (SO_2)	0.5 tons/yr
Particulate Matter (PM_{10})	4.0 tons/yr
Volatile Organic Compounds (VOC)	5.0 tons/yr

The total annual emissions from the engine-generator sets shall be calculated monthly as the sum of each consecutive twelve-month period. Compliance for the consecutive twelve-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 eleven months.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

10. **Annual Emissions Calculations** - The total annual emissions of each regulated pollutant from all engine-generator sets (EG-1 thru EG-22 and OB-1) shall be calculated monthly as the sum of each consecutive twelve-month period. Compliance for the consecutive twelve-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 eleven months.

Monthly emissions for each pollutant shall be determined using the following calculation method and the applicable emission factor as listed in the tables below:

a. Emission Factor Tables:

Table 2.A -

Reference No. EG-1 thru EG-22	
Pollutant	**Emission Factor (EF) (lb/gal)**
Nitrogen Oxides (as NO_2)	2.37 E-01
Carbon Monoxide (CO)	4.05 E-02
Sulfur Dioxide (SO_2)	2.12 E-04
Particulate Matter (PM_{10})	5.79 E-03
Volatile Organic Compounds (VOC)	7.51 E-03

Table 2.B –

Reference No. OB-1	
Pollutant	**Emission Factor (EF) (lb/hr)**
Nitrogen Oxides (as NO_2)	18.8
Carbon Monoxide (CO)	10.7
Sulfur Dioxide (SO_2)	0.015
Particulate Matter (PM_{10})	0.62
Volatile Organic Compounds (VOC)	0.99

b. Emissions Calculations:

NOx = {(Total fuel consumption for EG-1 thru EG-22 x EF per Table 2.A) + (Total hours of operation for OB-1 x EF per Table 2.B)} ÷ 2000 lbs/ton

CO = {(Total fuel consumption for EG-1 thru EG-22 x EF per Table 2.A) + (Total hours of operation for OB-1 x EF per Table 2.B)} ÷ 2000 lbs/ton

SO_2 = {(Total fuel consumption for EG-1 thru EG-22 x EF per Table 2.A) + (Total hours of operation for OB-1 x EF per Table 2.B)} ÷ 2000 lbs/ton

PM_{10} = {(Total fuel consumption for EG-1 thru EG-22 x EF per Table 2.A) + (Total hours of operation for OB-1 x EF per Table 2.B)} ÷ 2000 lbs/ton

VOC = {(Total fuel consumption for EG-1 thru EG-22 x EF per Table 2.A) + (Total hours of operation for OB-1 x EF per Table 2.B)} ÷ 2000 lbs/ton

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

11. **Visible Emission Limit** - Visible emissions from the engine-generator sets (EG-1 thru EG-22 and OB-1) 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.

    Visible emissions during startup, shutdown, and malfunction from the engine-generators shall not exceed ten percent opacity 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 and 9 VAC 5-50-260)

INITIAL COMPLIANCE DETERMINATION

12. **Testing Verification Meeting** – The permittee shall arrange to meet with the Regional Air Compliance Manager of the DEQ's NRO at the address referenced in Condition 18 to discuss the stack testing requirements associated with the installation of the ten engine-generator sets, EG-1, 6, 7, 12, 17, 18, 19, 20, 21, 22. The meeting shall take place prior to the submittal of the final test protocol for the ten engines.
    (9 VAC 5-50-30 and 9 VAC 5-80-1200)

13. **Stack Test –**

a. Initial performance tests:

i. COMPLETED: Initial performance tests shall be conducted for nitrogen oxides (as NO_2) and carbon monoxide (CO) on six of the initial twelve engine-generator sets (EG-2, 3, 4, 5, 8, 9, 10, 11, 13, 14, 15, 16) installed, using the emission compliance testing procedures outlined at 40 CFR 60, Appendix A, to demonstrate compliance with the NOx and CO emission limits specified in Condition 10.

ii. Initial performance tests shall be conducted for nitrogen oxides (as NO_2) on the initial five of the ten engine-generator sets (EG-1, 6, 7, 12, 17, 18, 19, 20, 21, 22) installed using the emission compliance testing procedures outlined at 40 CFR 60, Appendix A to demonstrate compliance with the NOx emission limit specified in Condition 8.

b. NO_2 emissions testing from each selected engine-generator set shall consist of three one-hour test runs per operating load, determined in accordance with Condition 13.c. The average of the three runs shall be reported as the short-term emissions for the engine-generator set.

c. Testing shall be conducted with the engines operating at >90% capacity, unless multiple load band testing is approved by DEQ during the Testing Verification Meeting required by Condition 12. The results of the testing shall be used in determining compliance.

d. The initial performance testing shall be performed to demonstrate compliance within sixty days after achieving the maximum operating rate at which each engine-generator set will operate, but in no case later than 180 days after start-up of each permitted engine-generator set. This subsection shall become applicable upon completion of manufacturer's trials but in no case longer than thirty days after start-up for manufacturer's trials. Tests shall be conducted, reported, and the data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410.

e. The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18. 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 and one paper copy to the Regional Air Permit Manger 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 at the address listed in Condition 18 in writing, within seven days of the scheduled test date or as soon as the rescheduling is deemed necessary. In any case the stack testing shall be rescheduled within thirty days.

g. Rescheduled testing shall be conducted under the same conditions as the initial performance tests or other condition as approved in writing from the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18.

h. 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 and one paper copy to the Regional Air Permit Manager of the DEQ's NRO at the address referenced in Condition 18 within sixty days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-50-30 and 9 VAC 5-80-1200)

14. **Initial Visible Emissions Evaluation** - Visual emission evaluations (VEE) in accordance with 40 CFR 60, Appendix A, Reference Method 9 shall be conducted by the permittee on the remaining engine-generator sets (EG-1, 6, 7, 12, 17, 18, 19, 20, 21, 22) not selected for initial stack testing in Condition 13.a.ii. The number of engines to be tested shall be determined during the Testing Verification Meeting required by Condition 12.

a. Testing shall be performed on the exhaust stack of each engine while operating between 35% and 50% of rated capacity.

b. Each test shall consist of thirty sets of twenty four consecutive observations (at fifteen second intervals) to yield a six minute average. The details of the tests are to be arranged with the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18.

c. The permittee shall submit a test protocol 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.

d. The evaluation shall be performed within sixty days after achieving maximum production rate at which each engine-generator set will be operated, but in no event later than 180 days after start-up of each permitted engine-generator set.

This subsection shall become applicable upon completion of manufacturer's trials but in no case longer than thirty days after start-up for manufacturer's trials.

e. Should conditions occur which would require rescheduling the testing, the permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18 in writing, within seven days of the scheduled test date or as soon as the rescheduling is deemed necessary. In any case the visible emissions testing shall be rescheduled within thirty days.

f. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests.

g. Two copies of the test result shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18 within sixty days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-50-30 and 9 VAC 5-80-1200)

CONTINUING COMPLIANCE

15. **Control Technology Reassessment** – No later than six months or earlier than nine months prior to commencing construction of the additional nine engine-generator sets (EG-1, 7, 12, 17, 18, 19, 20, 21, 22) that are scheduled to be installed after the thirteen engine-generator sets listed in Table 1.B are operational, the applicant shall notify the Regional Air Permit Manager of the DEQ's NRO at the addressed listed in Condition 18, of the anticipated date for commencing construction of the engine-generator sets (EG-1, 7, 12, 17, 18, 19, 20, 21, 22). The best available control technology (BACT) analysis, provided with the March 3, 2008, permit amendment request shall be reviewed by the Regional Air Permit Manager to determine whether the BACT determination provided with March 3, 2008 permit amendment request continues to be acceptable to the DEQ. Construction of the engine-generator sets, (EG-1, 7, 12, 17, 18, 19, 20, 21, 22), shall not begin until such time as the DEQ notifies the owner/operator of the acceptability of the BACT analysis.
(9 VAC 5-50-260 and 9 VAC 5-80-1180)

16. **Emissions Testing** - The engine-generator sets (EG-1 thru EG-22 and OB-1) shall 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 and safe sampling platforms and access shall be provided.
(9 VAC 5-50-30 F and 9 VAC 5-80-1180)

RECORDS AND NOTIFICATIONS

17. **Initial Notifications** - The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18 of:

    a. The actual date on which construction of each engine-generator set commenced within thirty days after such date.

    b. The actual start-up date of each engine-generator set within fifteen days after such date. The actual start-up date shall not be the date on which the engines were started for manufacturer's trials but shall be no later than thirty days after start-up for manufacturer's trials.

    c. The anticipated date of performance tests of each engine-generator set postmarked at least thirty days prior to such date.

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

18. **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:

    Department of Environmental Quality
    Northern Regional Office
    13901 Crown Court
    Woodbridge, VA 22193

    These records shall include, but are not limited to:

    a. Monthly hours of operation for each engine (EG-1 thru EG-22 and OB-1), date operated, and the reason operated:

    b. Annual fuel consumption for each engine-generator set (EG-1 thru EG-22), calculated monthly as the sum of each consecutive twelve month period. Compliance for the consecutive twelve-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 eleven months

    c. Monthly and annual emissions calculations for each pollutant from the engine-generator sets (EG-1 thru EG-22 and OB-1) using the calculation methods in Condition 10 to verify compliance with the tons/yr emissions limitations in Condition 9.

d. All fuel supplier certifications.

e. All VEE and emission stack test reports.

f. Scheduled and unscheduled maintenance.

g. Logs of monitoring device observations as per Condition 3.

h. Operator training in accordance with Condition 23.d.

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

GENERAL CONDITIONS

19. **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:

i. 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.

ii. For a partnership or sole proprietorship, a responsible official is a general

partner or the proprietor, respectively.

iii. For a municipality, state, federal, or other public agency, a responsible official is either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of the principal geographic unit of the agency.

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.

d. Any person who fails to submit any relevant facts or who has submitted incorrect information in a document shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

(9 VAC 5-20-230)

20. **Permit Invalidation** - This permit to construct the ten diesel engine-generator sets (EG-1, 6, 7, 12, 17, 18, 19, 20, 21, 22) shall become invalid, unless an extension is granted by the DEQ, if:

a. A program of continuous construction , reconstruction, or modification 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, reconstruction, or modification 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)

21. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

a. Knowingly makes material misstatements in the permit application or any amendments to it;

b. Fails to comply with the conditions of this permit;

c. Fails to comply with any emission standards applicable to a permitted 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

e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

(9 VAC 5-80-1210 F)

22. **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)

23. **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 the following measures in order to minimize the duration and frequency of excess 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)

24. **Record of Malfunctions** - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more

than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9VAC 5-20-180 J and 9 VAC 5-80-1180 D)

25. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18 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 Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)

26. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 18 of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least twenty-four hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

    a. Identification of the air pollution control equipment to be taken out of service, as well as its location and its 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 pollutants likely to occur during the shut-down period.

    d. Measures that will be taken to minimize the length of the shut-down or to negate the effect of the outage.

    (9 VAC 5-20-180B)

27. **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 5-80-1180)

28. **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 at the address listed in Condition 18 of the change of ownership within thirty days of the transfer.
(9 VAC 5-80-1240)

29. **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