UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUL - 8 2016

Mr. Maxwell George
Environmental Affairs Manager
Virgin Islands Water and Power Authority
P.O. Box 1450
St. Thomas, U.S. Virgin Islands 00804

Re: Final Significant Modification-Prevention Significant Deterioration (PSD) Permits- Continuous Opacity Monitors (COMs)-Virgin Islands Water and Power Authority's (VIWAPA) -St. Thomas and St. Croix

Dear Mr. George:

On March 18, 2015, the Region 2 Office of the U.S. Environmental Protection Agency (EPA) received VIWAPA's letter and a consolidated briefing package requesting multiple changes to the St. Thomas permits (STT) and one change to the St. Croix permits (STX). VIWAPA made its initial request on October, 21, 2014, provided additional information on January 30, 2015 and during a meeting on February 5, 2015. The requests are related to: 1) Sulfuric Acid Mist emission measurement and limit for the Combustion Turbine Unit 23 (STT); 2) Particulate matter emission limit for the Combustion Turbine Unit 18 (STT); 3) Volatile Organic Compound emission limit for Combustion Turbine Unit 18 (STT); 4) Removal of Continuous Opacity Monitoring requirements from multiple St. Thomas and St. Croix units and, 5) PSD non-applicability analyses for installing two duct burners (STT). Today's final permit modifications cover only the request to remove conditions requiring that VIWAPA operate COMs on all the PSD permitted combustion turbines and Heat Recovery Steam Generators (HRSG).

On March 31, 2016, EPA issued a preliminary determination, subject to public review, to approve the modifications to the multiple PSD permits for the St. Thomas and St. Croix plants. No comments were submitted to EPA during the 30-day public review period, which commenced upon publication of EPA's preliminary determination in the *Virgin Islands Daily News* on April 13, 2016, and expired on May 12, 2016. As such, no changes have been made from the draft modified PSD permits issued to VIWAPA on March 31, 2016, to the final permits that are being issued today. This letter and its enclosures represent EPA's final permit decision. A project description and summary of the control technologies to be used are provided in Enclosure I. The permit conditions are delineated in Enclosure II. This final permit decision becomes effective today. Since no comments were received during the public comment period, this permit may not be challenged under the Consolidated Permit Regulations, codified at 40 CFR Part 124, that apply to EPA's processing of this permit decision and no judicial review is available. Notice of the Agency's final action with respect to this permit will be published in the Federal Register. Under Section 307(b) of the Act, this final Agency action shall not be subject to judicial review in civil or criminal proceedings for enforcement.

If you have any questions regarding this letter, please call Mr. Steven C. Riva, Chief, Permitting Section, Air Programs Branch, at (212) 637-4074.

Sincerely,

John Filippelli, Director
Clean Air and Sustainability Division

Enclosures

cc: Verline Marcellin, VIDPNR
Angela Arnold, VIDPNR
Michael Lukey, ARCADIS

ENCLOSURE I

VIRGIN ISLANDS WATER AND POWER AUTHORITY
Richmond Generating Station-ST. CROIX
Final Modified Permit-Units 16, 17, 19 and 20

PROJECT DESCRIPTION- July, 2016

Today's (July, 2016) Revision

The Virgin Islands Water and Power Authority (VIWAPA) is requesting that EPA modify the existing consolidated final permit issued on June 18, 2007, for Combustion Turbine Units 16, 17, 19, 20, HRSG Unit 21(for Combustion Turbine 17) and HRSG Unit 24 (for Combustion Turbines 16 and 20) located at North Shore (Richmond Generating Station) in St. Croix. Today's modification removes the requirement to operate the Continuous Opacity Monitors (COMs) and instead comply with the State Implementation Plan's Opacity limits by EPA's Method 9 and 22. Also, in today's action EPA is modifying the permit to update all the addresses where the reports should be submitted.

Language of June 2007 Revisions:
The Virgin Islands Water and Power Authority (VIWAPA) is requesting that EPA amend the existing consolidated final permit issued on February 14, 2007, for Units 16, 17, 19 and 20 located at North Shore (Richmond Generating Station) in St. Croix. Today's amendment clarifies that analysis of a fuel sample for nitrogen content is not required unless there is a CEM reading of an exceedance of the applicable base NOx emission limit (i.e., 42 or 55 ppmdv) for which the sample is applicable.

Language of February 2007 Revisions:
The Virgin Islands Water and Power Authority (VIWAPA) requested to revise the existing consolidated permit for Units 16, 17, 19 and 20 located at North Shore (Richmond Generating Station) in St. Croix. VIWAPA requested the revision because its sole supplier of fuel on the Island can no longer guarantee fuel oil with a nitrogen content less than 1000 ppmw. While VIWAPA's permit did not limit the nitrogen content, the units were effectively limited to 150 ppmw (0.015%) in order to meet the NOx limit in the permit. VIWAPA therefore requested a new nitrogen content limit up to 1000 ppmw (0.1%). (Note: The fuel's sulfur content remains unchanged at 0.2%).

This change also resulted in increasing the nitrogen oxide emission limits in all four PSD units. Currently, VIWAPA operates six units at this site. In addition to the PSD affected Units 16, 17, 19 and 20, VIWAPA also operates boiler Units 10 and 11 which are not affected units under the PSD regulations. VIWAPA operates these boiler units according to the Virgin Islands Department of Natural Resources permits. VIWAPA retired and dismantled Units 12 and 14 prior to the November 27, 2000 consolidated PSD permit.

Units 16, 17, 19 and 20
EPA is revising this permit that will allow VIWAPA to use No. 2 fuel oil with a maximum fuel nitrogen content of 1000 ppm by weight. This change will result in raising the limits for nitrogen oxide emissions as follows:

Unit 16 - a 23 MW General Electric (GE) No. 2 oil-fired gas turbine (Model PG 5341) which was installed in 1981. The NOx emission limit will change from 77.4 lbs/hr to 126.4 lbs/hr.

Unit 17 - a 20 MW Alsthom Model Series (Model MS 5001) No. 2 oil-fired gas turbine, which was installed in 1988. The NOx emission limit will change from 55.7 lbs/hr to 104.3 lbs/hr.

[Emissions from units 16 and 17 are being vented through a Heat Recovery Steam Generator (HRSG) capable of producing 98,000 pounds per hour of steam. The HRSG is configured such that either of the two gas turbines may operate alternatively in a simple or combined cycle mode.]

Unit 19 - a 20 MW variable load General Electric (GE) Frame 5 No. 2 oil-fired gas turbine (Model PG5371), which was installed in 1994. The NOx emission limit will change from 57 lbs/hr to 103 lbs/hr.

Unit 20 - a 24.5 MW variable load General Electric (GE) Frame 5 No. 2 oil-fired gas turbine (Model PG5371(PA), which was installed in 1995. The NOx emission limit will change from 57 lbs/hr to 103 lbs/hr.

Units 10 and 11
VIWAPA will continue to use these existing boilers pursuant to the permits issued by VIDPNR. These Units shall continue to use residual fuel or better with maximum sulfur content of 0.33% by weight.

Units 12 and 14
These Units have been retired and dismantled prior to November 27, 2000, consolidated permit.

Units 16, 17, 19 and 20 at this site are PSD affected units each one with potential emissions of criteria pollutants in excess of 100 tons per year (TPY). Each unit was addressed in a separate PSD permit and the permits were issued over a number of years. All units were later consolidated in one PSD permit on November 27, 2000. All these units are PSD affected for oxides of nitrogen (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), and volatile organic compounds (VOC). There will be no change to the emissions of any of those pollutants other than NOx. The potential emissions from these units

are as follows.

POLLUTANT	UNITS 16 AND 17	UNIT 19	UNIT 20
	(tons/year)	(tons/year)	(tons/year)
Nitrogen Oxides (NO_x)	Revised from 583.0 to 1011.0	Revised from 249.7 to 451.0	Revised from 249.7 to 451.0
Sulfur Dioxide (SO_2)	591.3	278.4	281.0
Carbon Monoxide (CO)	325.3	1379.7	1379.7
Particulate matter less than 10 microns (PM_{10})	105.5	78.8	78.8
Volatile Organic Compounds (VOC)	117.8	247.5	247.5

VIWAPA employs Best Available Control Technology to control the pollutants described above. NO_x emissions shall be controlled through the use of water injection. SO_2 and PM_{10} emissions will be controlled through the use of low sulfur distillate fuel oil. CO and VOC emissions will be controlled by implementing good combustion practices and performing intensive maintenance.

VIWAPA St. Croix Air Quality Analysis (ug/m3)

Pollutant	Net change in impact	EPA's Sign. Impact Level	EPA's Monitor-ing de minimis Level	Modeled Cumulat-ive Air Impact	Measu-red Backgr-ound	Cum. Model + background	Modeled Increment	PSD Increm-ent	NAAQS
NO2									
Ann ual	6.5	1	14	51	8	59	16	25	100

1. National Ambient Air Quality Standard is the EPA air quality standard for public health.

2. The Significant Impact Level is a fraction of the NAAQS and is used by EPA to determine whether a cumulative modeling analysis is required.

3. The Monitoring de minimis Level is used by EPA to determine whether preconstruction ambient air quality monitoring is required. In this case, it was not required for the purpose of preconstruction concentrations. However, existing monitored background data measured in Puerto Rico site was obtained. This background concentration was added to the total modeled concentration modeled impact in order to determine a total concentration for comparison to the NAAQS.

Air Quality Analysis in St. John National Park - Class I Area

Pollutant Averaging Period	Net Change Impact	EPA's Significant Impact Level	Increment & NAAQS Required?
NO_2 Annual	0.01	0.1	No

ENCLOSURE II
Final Modified Permit- July, 2016

VIRGIN ISLANDS WATER AND POWER AUTHORITY (VIWAPA)
NORTH SHORE-ST. CROIX

MODIFIED FINAL PERMIT CONDITIONS (Units 16, 17, 19 and 20)

The electric power generating units at VIWAPA - St. Croix, as described in Enclosure I are subject to the following conditions:

I. EMISSION LIMITATIONS AND TESTING REQUIREMENTS:

A. Unit 16 ---- 23 MW GE Frame 5 (Model PG5341)

1. The total fuel usage for unit 16 shall not exceed 21,199,200 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. The maximum heat input shall not exceed 338.8 MMBTU/hr.

   Unit 16 is limited to a maximum fuel consumption rate of 2420 gallons per hour.

   The type of fuel is limited to No. 2 fuel oil or distillate fuel oil with a sulfur content of 0.2% by weight and a nitrogen content of no more than 1000 ppm by weight.

   Tests for sulfur in fuel shall be conducted using testing methods established in 40 CFR 60.335. The test for nitrogen in fuel oil can be any one of the ASTM methods from ASTM D6366-99, D4629-02, or D5762-02. A fuel sample shall be drawn daily from the day or the holding tank that supplies fuel oil to this unit.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

   a. BACT is the use of water injection to control NO_x emissions. VIWAPA must use water injection at all times except during periods of startup and shutdown where the load is less than 35% of capacity. The operation at 35% or below capacity shall not exceed 25% of the total annual operating time during a rolling 12-month period.

   b. NOx Emissions (measured as NO_2)

   Operating above low load-
   When operating above low load, the concentration of NOx in the exhaust gas shall

not exceed by volume (ppmdv), on a dry basis, corrected to 15% oxygen (as determined by continuous emissions monitoring and at stack testing) on an hourly average basis as follows:

NOx (ppm) = 55, when fuel oil's nitrogen content is 150 ppm or below; or

NOx (ppm) = 55 + [((N/10,000)-0.015) x 470.59], where N is the fuel oil's nitrogen content in ppm and it is above 150 ppm

The NOx concentration value obtained from this equation then shall be used in the equation in 40 CFR 60, Appendix A, Method 19 to calculate the pounds per hour NOx emission limit for that specific nitrogen content of the fuel oil. VIWAPA shall comply with this pounds per hour emission limit when fuel nitrogen content is lower than 1000 ppmw and is operating the unit above low load. However, in no event, including operating at 1000 ppmw nitrogen in fuel, shall VIWAPA exceed 126.4 lbs/hr NOx.

Operating below low load-
When operating below low load, NOx emission shall not exceed 126.4 lbs/hr.

c. The compliance with NOx emissions on an hourly average basis shall be determined as follows: VIWAPA shall analyze the nitrogen content of the fuel oil for each day when the NOx CEM reading exceeded 55 ppm (15% oxygen dry) hourly average for any hour during the day when this turbine was operating. The analyses shall be done in accordance with condition (I)(A)(2)(d). The nitrogen content of the fuel oil in ppm shall be used to calculate the maximum allowable hourly NOx emissions using the equations specified in (I)(A)(3)(b) and shall remain in effect for the whole day for which the sample was taken. If the NOx CEM reading on an hourly average does not exceed 55 ppm during the entire day, a fuel analysis for nitrogen is not required for that day. VIWAPA shall also obtain averages of the measured nitrogen oxide concentrations (in ppmdv) and lbs/hr rate for every hour.

d. The NOx emission rate shall be tested using EPA Reference Method 20 (see 40 CFR Part 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing and the requirements in Section II of this permit. Three test runs shall be conducted at four different load conditions (including the minimum point in the range and peak load) and compliance shall be based on the average NO_x emission rate of these test runs. These tests for NOx shall be conducted within 180 days of the effective date of this permit.

e. The water-to-fuel ratio for various load conditions will be established during the initial performance testing for NOx and reestablished or verified during any subsequent testing. The water-to-fuel ratio values contained in the initial performance test reports required to be submitted to EPA must become enforceable conditions of this permit. VIWAPA shall

apply to the Virgin Islands Department of Planning and Natural Resources to incorporate the water-to-fuel ratios into VIWAPA's operating permit.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

While operating in simple or combined cycle mode, SO_2 emissions shall not exceed 67.8 lbs/hr. The initial compliance with the emission rate shall be demonstrated by stack tests using EPA (RM) 20 (40 CFR 60 Appendix A). The initial stack test shall be conducted at various loads. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate. In these calculations, VIWAPA shall assume that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

5. **Carbon Monoxide (CO) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, CO emissions shall not exceed 37.3 lbs/hr. The CO emission rate shall be tested using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen as determined by continuous emission monitoring. Percent load will be determined based on the amount of fuel oil fired.

PERCENT LOAD	CONC. OF CO (ppmdv @ 15% O_2)
5MW	2947
12MW	1530
17MW	593
18-22MW	204
MAX	51

6. **Particulate Matter/PM_{10} Emission Limitation:**

   a. While operating in simple or combined cycle mode, PM emissions shall not exceed 12.1 lbs/hr.

   b. While operating in simple or combined cycle mode, PM_{10} emissions shall not exceed 12.1 lbs/hr.

   c. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The emission rate of PM shall be determined using EPA (RM) Method 5. The PM10 emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

   a. While operating in simple or combined cycle mode at base load, VOC emissions shall not exceed 13.5 lbs/hr measured as carbon. The VOC emission rate shall be tested using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) 18 from the Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

   b. While operating in simple or combined cycle mode, VOC emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen. Percent load will be determined based on amount of fuel oil fired.

PERCENT LOAD	CONC. OF VOC (ppmdv @ 15% O_2)
5MW	1417
12MW	905
17MW	110
18-22MW	40
MAX	32

   c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

Based on the procedures in 40 CFR Part 60, Appendix A, Method 9, the Permittee shall not discharge into the atmosphere any air contaminants with opacity greater than 17 percent except for 3 minutes in any consecutive 30-minute period during which 40 percent shall not be exceeded.

Monitoring and Corrective Action: The Permittee shall conduct daily visual emissions inspections when the units are operating during daylight hours. Visual inspections shall consist of a visual observation of each stack and determination of visible emissions using 40 CFR Part 60, Appendix A- Method 22. If any visible emissions are observed, the Permittee shall do the following:

Within four hours of observing visible emissions, the Permittee shall conduct an opacity test using a certified opacity reader in accordance with Method 9. If the certified visible emissions reading exceeds the 17 percent opacity limit referenced above, then permittee shall verify that the equipment and/or control device causing the visible emissions or opacity is operating according to the manufacturer specifications. If the equipment or control device is not operating properly, the Permittee shall take a corrective action immediately to eliminate the opacity exceedance. In the event that the exceedance of the 17% opacity standard is not eliminated following immediate implementation of the corrective action, the Permittee shall continue to take corrective actions until the permittee has successfully corrected the opacity problem.

After an initial corrective action is taken, the Permittee shall perform an opacity check via a certified opacity reader in accordance with Method 9 within 24 hours. Such test shall be conducted each day until the permittee has successfully corrected the opacity problem.

Recordkeeping: The Permittee shall maintain records of the visible emissions readings under Method 22 and any opacity tests/inspections under Method 9. If visible emissions or opacity are observed, then records of those readings and all corrective actions shall be maintained.

Reporting: The Permittee shall report any exceedance of the 17 percent opacity limit in the quarterly report. If no exceedance of this permit term occurs, a statement as such shall be included in the quarterly report.

B. Unit 17 ---- 20 MW Alsthom Model Series (MS) 5001

1. The total fuel usage for unit 17 shall not exceed 21,024,000 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 336.0 MMBTU/hr.

b. Unit 17 is limited to a maximum fuel consumption rate of 2400 gallons per hour.

c.The type of fuel is limited to No. 2 fuel oil or distillate fuel oil with a sulfur content of 0.2% by weight and a nitrogen content of no more than 1000 ppm by weight.

d.Tests for sulfur in fuel shall be conducted using testing methods established in 40 CFR 60.335. The test for nitrogen in fuel oil can be any one of the ASTM methods from ASTM D6366-99, D4629-02, or D5762-02. A fuel sample shall be drawn daily from the day or the holding tank that supplies fuel oil to this unit.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

a. BACT is the use of water injection to control NO_x emissions. VIWAPA must use water injection at all times except during periods of startup and shutdown where the load is less than 35% of capacity. The operation at 35% or below capacity shall not exceed 25% of the total annual operating time during a rolling 12-month period.

b. NOx Emissions (measured as NO_2)

Operating above low load-
When operating above low load, the concentration of NOx in the exhaust gas shall not exceed by volume (ppmdv), on a dry basis, corrected to 15% oxygen (as determined by continuous emissions monitoring and at stack testing) on an hourly average basis as follows:

NOx (ppm) = 42, when fuel oil's nitrogen content is 150 ppm or below; or

NOx (ppm) = 42 + [((N/10,000)-0.015) x 470.59], where N is the fuel oil's nitrogen content in ppm and it is above 150 ppm

The NOx concentration value obtained from this equation then shall be used in the equation in 40 CFR 60, Appendix A, Method 19 to calculate the pounds per hour NOx emission limit for that specific nitrogen content of the fuel oil. VIWAPA shall comply with this pounds per hour emission limit when fuel nitrogen content is lower than 1000 ppmw and is operating the unit above low load. However, in no event, including operating at 1000 ppmw nitrogen in fuel, shall VIWAPA exceed 104.3 lbs/hr NOx.

Operating below low load-
When operating below low load, NOx emission shall not exceed 104.3 lbs/hr.

c. The compliance with NOx emissions on an hourly average basis shall be determined as

follows: VIWAPA shall analyze the nitrogen content of the fuel oil for each day when the NOx CEM reading exceeded 42 ppm (15% oxygen dry) hourly average for any hour during the day when this turbine was operating. The analyses shall be done in accordance with condition (I)(B)(2)(d). The nitrogen content of the fuel oil in ppm shall be used to calculate the maximum allowable hourly NOx emissions using the equations specified in (I)(B)(3)(b) and shall remain in effect for the whole day for which the sample was taken. If the NOx CEM reading on an hourly average does not exceed 42 ppm during the entire day, a fuel analysis for nitrogen is not required for that day. VIWAPA shall also obtain averages of the measured nitrogen oxide concentrations (in ppmdv) and lbs/hr rate for every hour.

d. The NOx emission rate shall be tested using EPA Reference Method 20 (see 40 CFR Part 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing and the requirements in Section II of this permit. Three test runs shall be conducted at four different load conditions (including the minimum point in the range and peak load) and compliance shall be based on the average NO_x emission rate of these test runs. These tests for NOx shall be conducted within 180 days of the effective date of this permit.

e. The water-to-fuel ratio for various load conditions will be established during the initial performance testing for NOx and reestablished or verified during any subsequent testing. The water-to-fuel ratio values contained in the initial performance test reports required to be submitted to EPA must become enforceable conditions of this permit. VIWAPA shall apply to the Virgin Islands Department of Planning and Natural Resources to incorporate the water-to-fuel ratios into VIWAPA's operating permit.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

While operating in simple or combined cycle mode, SO_2 emissions shall not exceed 67.2 lbs/hr. The initial compliance with the emission rate shall be demonstrated by stack tests using EPA (RM) 20 (40 CFR 60 Appendix A). The initial stack test shall be conducted at various loads. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate. In performing these calculations, VIWAPA shall assume that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

5. **Carbon Monoxide (CO) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, CO emissions shall not exceed 37.0 lbs/hr. The CO emission rate shall be tested using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen as determined by continuous emission monitoring. Percent load will be determined based on the amount of fuel oil fired.

PERCENT LOAD	CONC. OF CO (ppmdv @ 15% O_2)
5MW	2196
10MW	1140
15MW	442
18-20MW	152
MAX	38

6. **Particulate Matter/PM_{10} Emission Limitation:**

a. While operating in simple or combined cycle mode, PM emissions shall not exceed 12.0 lbs/hr.

b. While operating in simple or combined cycle mode, PM_{10} emissions shall not exceed 12.0 lbs/hr.

c. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The emission rate of PM shall be determined using EPA (RM) Method 5. The PM10 emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, VOC emissions shall not exceed 13.4 lbs/hr measured as carbon. The VOC emission rate shall be tested using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract

methane and ethane emissions using EPA (RM) 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. While operating in simple or combined cycle mode, VOC emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen. Percent load will be determined based on amount of fuel oil fired.

PERCENT LOAD	CONC. OF VOC (ppmdv @ 15% O_2)
5MW	1063
10MW	679
15MW	82
18-20MW	30
MAX	24

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

Based on the procedures in 40 CFR Part 60, Appendix A, Method 9, the Permittee shall not discharge into the atmosphere any air contaminants with opacity greater than 17 percent except for 3 minutes in any consecutive 30-minute period during which 40 percent shall not be exceeded.

Monitoring and Corrective Action: The Permittee shall conduct daily visual emissions inspections when the units are operating during daylight hours. Visual inspections shall consist of a visual observation of each stack and determination of visible emissions using 40 CFR Part 60, Appendix A, Method 22. If any visible emissions are observed, the Permittee shall do the following:

Within four hours of observing visible emissions, the Permittee shall conduct an opacity test using a certified opacity reader in accordance with Method 9. If the certified visible emissions reading exceeds the 17 percent opacity limit referenced above, then permittee shall verify that the equipment and/or control device causing the visible emissions or opacity is operating according to the manufacturer specifications. If the equipment or control device is not operating properly, the Permittee shall take a corrective action immediately to eliminate the opacity exceedance. In the event that the exceedance of the 17% opacity standard is not eliminated following immediate implementation of the corrective action, the Permittee shall continue to take

corrective actions until the permittee has successfully corrected the opacity problem.

After an initial corrective action is taken, the Permittee shall perform an opacity check via a certified opacity reader in accordance with Method 9 within 24 hours. Such test shall be conducted each day until the permittee has successfully corrected the opacity problem.

Recordkeeping: The Permittee shall maintain records of the visible emissions readings under Method 22 and any opacity tests/inspections under Method 9. If visible emissions or opacity are observed, then records of those readings and all corrective actions shall be maintained.

Reporting: The Permittee shall report any exceedance of the 17 percent opacity limit in the quarterly report. If no exceedance of this permit term occurs, a statement as such shall be included in the quarterly report.

C. Unit 19 - 20 MW GE Frame 5 (Model PG5371)

1. The total fuel usage for unit 19 shall not exceed 19,885,200 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a.The maximum heat input shall not exceed 317.8 MMBtu/hr.

   b Unit 19 is limited to a maximum fuel consumption rate of 2,270 gallons per hour.

   c.The type of fuel is limited to No. 2 fuel oil or distillate fuel oil with a sulfur content of 0.2% by weight and a nitrogen content of no more than 1000 ppm by weight.

   d.Tests for sulfur in fuel shall be conducted using testing methods established in 40 CFR 60.335. The test for nitrogen in fuel oil can be any one of the ASTM methods from ASTM D6366-99, D4629-02, or D5762-02. A fuel sample shall be drawn daily from the day or the holding tank that supplies fuel oil to this unit.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

   a.BACT is the use of water injection to control NO_x emissions. VIWAPA must use water injection at all times except during periods of startup and shutdown where the load is less than 25% of capacity. The operation at 25% or below capacity shall not exceed 25% of the total annual operating time during a rolling 12-month period.

   b. NOx Emissions (measured as NO_2)

      Operating above low load-
      When operating above low load, the concentration of NOx in the exhaust gas shall

not exceed by volume (ppmdv), on a dry basis, corrected to 15% oxygen (as determined by continuous emissions monitoring and at stack testing) on an hourly average basis as follows:

NOx (ppm) = 42, when fuel oil's nitrogen content is 150 ppm or below; or

NOx (ppm) = 42 + [((N/10,000)-0.015) x 470.59], where N is the fuel oil's nitrogen content in ppm and it is above 150 ppm

The NOx concentration value obtained from this equation then shall be used in the equation in 40 CFR 60, Appendix A, Method 19 to calculate the pounds per hour NOx emission limit for that specific nitrogen content of the fuel oil. VIWAPA shall comply with this pounds per hour emission limit when fuel nitrogen content is lower than 1000 ppmw and is operating the unit above low load. However, in no event, including operating at 1000 ppmw nitrogen in fuel, shall VIWAPA exceed 103 lbs/hr NOx.

Operating below low load-
When operating below low load, NOx emission shall not exceed 103 lbs/hr.

c. The compliance with NOx emissions on an hourly average basis shall be determined as follows: VIWAPA shall analyze the nitrogen content of the fuel oil for each day when the NOx CEM reading exceeded 42 ppm (15% oxygen dry) hourly average for any hour during the day when this turbine was operating. The analyses shall be done in accordance with condition (I)(C)(2)(d). The nitrogen content of the fuel oil in ppm shall be used to calculate the maximum allowable hourly NOx emissions using the equations specified in (I)(C)(3)(b) and shall remain in effect for the whole day for which the sample was taken. If the NOx CEM reading on an hourly average does not exceed 42 ppm during the entire day, a fuel analysis for nitrogen is not required for that day. VIWAPA shall also obtain averages of the measured nitrogen oxide concentrations (in ppmdv) and lbs/hr rate for every hour.

d. The NOx emission rate shall be tested using EPA Reference Method 20 (see 40 CFR Part 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing and the requirements in Section II of this permit. Three test runs shall be conducted at four different load conditions (including the minimum point in the range and peak load) and compliance shall be based on the average NO_x emission rate of these test runs. These tests for NOx shall be conducted within 180 days of the effective date of this permit.

e. The water-to-fuel ratio for various load conditions will be established during the initial performance testing for NOx and reestablished or verified during any subsequent testing. The water-to-fuel ratio values contained in the initial performance test reports required to be submitted to EPA must become enforceable conditions of this permit. VIWAPA shall

apply to the Virgin Islands Department of Planning and Natural Resources to incorporate the water-to-fuel ratios into VIWAPA's operating permit.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

The SO_2 emissions shall not exceed 63.5 lbs/hr. The initial compliance with emission rate of SO_2 shall be determined using EPA (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate and assuming that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

5. **Carbon Monoxide (CO) Emission Limitation:**

a. The CO mass emission rates at various loads are given in the table below. Compliance will be demonstrated using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various load levels corrected to 15% oxygen as determined by continuous emission monitoring. The load will be determined based on the amount of electricity generated (MW).

PERCENT LOAD	EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)
5MW	315.0 (450)
10MW	294.0 (420)
15MW	288.1 (360)
18-20MW	219.8 (159)
MAX	66.7 (83)

c. For any 8-hour period, unit 19 shall not operate below a load factor of 15 percent.

6. **PM_{10} Emission Limitation:**

a. The PM_{10} emissions shall not exceed 18 lbs/hr.

b. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The PM_{10} emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. The VOC mass emission rates (measured as carbon) at various load ranges is given in the table below. Compliance shall be demonstrated using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) Method 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. VOC emissions shall not exceed the following concentrations at various load levels corrected to 15% oxygen. The load will be determined based on amount of electricity generated (MW).

LOAD	EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)
5 MW	56.5(268)
10 MW	28 (89)
15 MW	17.5 (37)
16-18 MW	5.6 (13)
MAX	3.1 (10)

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

Based on the procedures in 40 CFR Part 60, Appendix A, Method 9, the Permittee shall not discharge into the atmosphere any air contaminants with opacity greater than 17 percent except

for 3 minutes in any consecutive 30-minute period during which 40 percent shall not be exceeded.

Monitoring and Corrective Action: The Permittee shall conduct daily visual emissions inspections when the units are operating during daylight hours. Visual inspections shall consist of a visual observation of each stack and determination of visible emissions using 40 CFR Part 60, Appendix A- Method 22. If any visible emissions are observed, the Permittee shall do the following:

Within four hours of observing visible emissions, the Permittee shall conduct an opacity test using a certified opacity reader in accordance with Method 9. If the certified visible emissions reading exceeds the 17 percent opacity limit referenced above, then permittee shall verify that the equipment and/or control device causing the visible emissions or opacity is operating according to the manufacturer specifications. If the equipment or control device is not operating properly, the Permittee shall take a corrective action immediately to eliminate the opacity exceedance. In the event that the exceedance of the 17% opacity standard is not eliminated following immediate implementation of the corrective action, the Permittee shall continue to take corrective actions until the permittee has successfully corrected the opacity problem.

After an initial corrective action is taken, the Permittee shall perform an opacity check via a certified opacity reader in accordance with Method 9 within 24 hours. Such test shall be conducted each day until the permittee has successfully corrected the opacity problem.

Recordkeeping: The Permittee shall maintain records of the visible emissions readings under Method 22 and any opacity tests/inspections under Method 9. If visible emissions or opacity are observed, then records of those readings and all corrective actions shall be maintained.

Reporting: The Permittee shall report any exceedance of the 17 percent opacity limit in the quarterly report. If no exceedance of this permit term occurs, a statement as such shall be included in the quarterly report.

D. Unit #20 - 24.5 MW GE Turbine (Model PG5371)

1. The total fuel usage for Unit #20 shall not exceed 19,830,720 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel-oil used during each calendar day to the total quantity of the fuel-oil used in the preceding 364 calendar days.

2. a.The maximum heat input shall not exceed 317.9 MMBtu/hr.

   b.Unit #20 is limited to a maximum fuel consumption rate of 2,270 gallons per hour.

   c.The type of fuel is limited to No. 2 fuel oil or distillate fuel oil with a sulfur content of

0.2% by weight and a nitrogen content of no more than 1000 ppm by weight.

d.Tests for sulfur in fuel shall be conducted using testing methods established in 40 CFR 60.335. The test for nitrogen in fuel oil can be any one of the ASTM methods from ASTM D6366-99, D4629-02, or D5762-02. A fuel sample shall be drawn daily from the day or the holding tank that supplies fuel oil to this unit.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

a. BACT is the use of water injection to control NO_x emissions. VIWAPA must use water injection at all times except during periods of startup and shutdown where the load is less than 25% of capacity. The operation at 25% or below capacity shall not exceed 25% of the total annual operating time during a rolling 12-month period.

b. NOx Emissions (measured as NO_2)

Operating above low load-
When operating above low load, the concentration of NOx in the exhaust gas shall not exceed by volume (ppmdv), on a dry basis, corrected to 15% oxygen (as determined by continuous emissions monitoring and at stack testing) on an hourly average basis as follows:

NOx (ppm) = 42, when fuel oil's nitrogen content is 150 ppm or below; or

NOx (ppm) = 42 + [((N/10,000)-0.015) x 470.59], where N is the fuel oil's nitrogen content in ppm and it is above 150 ppm

The NOx concentration value obtained from this equation then shall be used in the equation in 40 CFR 60, Appendix A, Method 19 to calculate the pounds per hour NOx emission limit for that specific nitrogen content of the fuel oil. VIWAPA shall comply with this pounds per hour emission limit when fuel nitrogen content is lower than 1000 ppmw and is operating the unit above low load. However, in no event, including operating at 1000 ppmw nitrogen in fuel, shall VIWAPA exceed 103 lbs/hr NOx.

Operating below low load-
When operating below low load, NOx emission shall not exceed 103 lbs/hr.

c. The compliance with NOx emissions on an hourly average basis shall be determined as follows: VIWAPA shall analyze the nitrogen content of the fuel oil for each day when the NOx CEM reading exceeded 42 ppm (15% oxygen dry) hourly average for any hour during the day when this turbine was operating. The analyses shall be done in accordance with condition (I)(D)(2)(d). The nitrogen content of the fuel oil in ppm shall

be used to calculate the maximum allowable hourly NOx emissions using the equations specified in (I)(D)(3)(b) and shall remain in effect for the whole day for which the sample was taken. If the NOx CEM reading on an hourly average does not exceed 42 ppm during the entire day, a fuel analysis for nitrogen is not required for that day. VIWAPA shall also obtain averages of the measured nitrogen oxide concentrations (in ppmdv) and lbs/hr rate for every hour.

d. The NOx emission rate shall be tested using EPA Reference Method 20 (see 40 CFR Part 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing and the requirements in Section II of this permit. Three test runs shall be conducted at four different load conditions (including the minimum point in the range and peak load) and compliance shall be based on the average NO_x emission rate of these test runs. These tests for NOx shall be conducted within 180 days of the effective date of this permit.

e. The water-to-fuel ratio for various load conditions will be established during the initial performance testing for NOx and reestablished or verified during any subsequent testing. The water-to-fuel ratio values contained in the initial performance test reports required to be submitted to EPA must become enforceable conditions of this permit. VIWAPA shall apply to the Virgin Islands Department of Planning and Natural Resources to incorporate the water-to-fuel ratios into VIWAPA's operating permit.

4. **Sulfur Dioxide (SO_2) Emission Limitations:**

The SO_2 emissions shall not exceed 64.2 lbs/hr. The initial compliance with emission rate of SO_2 shall be determined using EPA RM 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average SO_2 emission rate of these three test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate and assuming that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

5. **PM_{10} Emission Limitations:**

a. The PM_{10} emissions shall not exceed 18 lbs/hr.

b. VIWAPA shall conduct stack tests to demonstrate initial compliance with the

emission limits. These tests shall be conducted at various loads. The PM_{10} emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average PM_{10} emission rate of these three test runs.

6. **Carbon Monoxide (CO) Emission Limitations:**

a. The CO mass emission rates at various loads are given in the table below. Compliance will be demonstrated using EPA RM 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels, corrected to 15% oxygen, as determined by continuous emission monitoring. Percent load will be determined based on the amount of electricity generated (MW).

PERCENT LOAD	EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)
5MW	315 (450)
10MW	294 (420)
15MW	288 (360)
18-20MW	219.8 (159)
MAX	66.7 (83)

c. For any 8-hour period, Unit #20 shall not operate below a load factor of 15 percent.

7. **Volatile Organic Compounds (VOC) Emission Limitations:**

a.The VOC mass emission rates (measured as carbon) at various loads is given in the table below. Compliance shall be demonstrated using EPA RM 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) Method 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average VOC emission rate of these three test runs.

b.VOC emissions shall not exceed the following concentrations at various percent load

levels, corrected to 15% oxygen. Percent load will be determined based on amount of electricity generated (MW).

LOAD	EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)
5 MW	56.5(268)
10 MW	28 (89)
15 MW	17.5 (37)
18-20 MW	5.6 (13)
MAX	3.1 (10)

EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitations:**

Based on the procedures in 40 CFR Part 60, Appendix A, Method 9, the Permittee shall not discharge into the atmosphere any air contaminants with opacity greater than 17 percent except for 3 minutes in any consecutive 30-minute period during which 40 percent shall not be exceeded.

Monitoring and Corrective Action: The Permittee shall conduct daily visual emissions inspections when the units are operating during daylight hours. Visual inspections shall consist of a visual observation of each stack and determination of visible emissions using 40 CFR Part 60, Appendix A, Method 22. If any visible emissions are observed, the Permittee shall do the following:

Within four hours of observing visible emissions, the Permittee shall conduct an opacity test using a certified opacity reader in accordance with Method 9. If the certified visible emissions reading exceeds the 17 percent opacity limit referenced above, then permittee shall verify that the equipment and/or control device causing the visible emissions or opacity is operating according to the manufacturer specifications. If the equipment or control device is not operating properly, the Permittee shall take a corrective action immediately to eliminate the opacity exceedance. In the event that the exceedance of the 17% opacity standard is not eliminated following immediate implementation of the corrective action, the Permittee shall continue to take corrective actions until the permittee has successfully corrected the opacity problem.

After an initial corrective action is taken, the Permittee shall perform an opacity check via a certified opacity reader in accordance with Method 9 within 24 hours. Such test shall be conducted each day until the permittee has successfully corrected the opacity problem.

Recordkeeping: The Permittee shall maintain records of the visible emissions readings under Method 22 and any opacity tests/inspections under Method 9. If visible emissions or opacity are observed, then records of those readings and all corrective actions shall be maintained.

Reporting: The Permittee shall report any exceedance of the 17 percent opacity limit in the quarterly report. If no exceedance of this permit term occurs, a statement as such shall be included in the quarterly report.

E. Existing Residual Fuel-Consuming Units 10 and 11:

1. Unit 10 and unit 11 are limited to a maximum fuel consumption rate of 1,744 gallons/hour and 3,140 gallons/hr respectively.

2. Unit 10 and unit 11 shall use No. 6 fuel oil in which the sulfur content does not exceed 0.33 percent by weight.

II. MONITORING and RECORD KEEPING:

A. Prior to the date of startup and thereafter, VIWAPA shall install, calibrate, maintain and operate continuous emission monitors or monitoring systems to measure stack emissions and operating parameters indicated below:

Units 16/17
Continuous emission monitors (CEMs): CO, O_2 and NO_x

Units 19/20-
Continuous emission monitors (CEMs): CO, O_2 and NO_x.
Continuous monitors: Volumetric stack gas flow rate, Stack temperature, and Water to fuel ratio.

B. Within 180 days of the effective date of this permit, VIWAPA shall install, calibrate and test each continuous emission monitor (CEM) and recorder listed in II(A). Monitors must comply with EPA performance and siting specifications pursuant to 40 CFR Part 60, Appendix B, Performance Specifications 1-4. Equipment specifications, calibration and operating procedures, and data evaluation and reporting procedures shall be submitted to EPA in a Performance Specification Test protocol. EPA reserves the right to require the auditing of the CEMs by independent agents. Data collected from the CEMs will be quality controlled and quality assured in accordance with the procedures specified in 40 CFR Part 60 Appendix F.

C. Not less than 90 days prior to the date of startup of any unit, VIWAPA must submit to the EPA a Quality Assurance Project Plan for the certification of the CEM systems. CEM performance testing may not begin until the Quality Assurance Project Plan has been approved by EPA.

D. VIWAPA shall submit a written report to EPA of the results of all monitor performance

specification tests conducted on the monitoring system(s) within 45 days of the completion of the tests.

E. Logs shall be kept and updated daily to record the following:

1. the No. 2 fuel oil fired (gallons) on an hourly and annual (rolling 365-day) basis, and hours of operation for unit 16, 17, 19 and 20;

2. exceedance of emission limitations determined by continuous monitoring;

3. the sulfur content of all fuel oil burned; sulfur dioxide emission calculations, all sulfur dioxide emissions shall be recorded and maintained in a logbook.

4. the amount of water consumed (gals) to control NO_x emissions from all units

5. the amount of electrical output (MW) on an hourly basis from all units, amount of steam produced from Units 16, 17 and the HRSG at Units 16 and 17

6 the amounts (gallons) of No. 6 oil fired from existing Units 10 and 11 on an hourly basis

3. hourly average of NOx CEM measurements for each 24-hour period and nitrogen content of the fuel for each day it was measured

F. All continuous monitoring records and logs specified in this section must be maintained for a period of five years after the date of record, and made available upon request.

G. In each report quarter, 90% quality data availability shall be maintained for all gaseous monitors. There shall be a quality assurance plan coupled with a calibration and maintenance program for these monitors.

III. REPORTING REQUIREMENTS:

A. All emission reports, testing reports and start-up notifications required under this permit shall be submitted to the EPA office below. Three copies of the stack test report must be submitted within 60 days after completion of the test.

The Chief, Multimedia Permit and Compliance Branch
Caribbean Environmental Protection Division
City View Plaza II - Suite 7000
48 Carr. 165 km1.2
Guaynabo, PR 00968-8073

B. Upsets/Malfunctions:

Upsets/malfunctions and actions taken on any unit must be reported by telephone within 24 hours with a follow-up letter within 5 calendar days to:

Director, Division of Environmental Protection
Virgin Islands Department of Planning and Natural Resources
Cyril E. King Airport, 2nd Floor
St. Thomas, U.S. VI 00802

VIWAPA shall submit a written report of excess emissions to EPA for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the information specified below:

1. Specific identification of each period of excess emissions that occurred during start-ups, shutdowns, and malfunctions of the affected facility.

2. The nature and cause of any malfunction (if known) of the affected facility and the corrective action taken or preventative measures adopted.

3. For apparent excess emissions due to CEM malfunction, provide the date and time identifying each period during which the continuous monitoring system was inoperative (not including zero and span checks) and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred, or the continuous monitoring system(s) have not been inoperative, repaired or adjusted, such information shall be stated in the report.

5. The sulfur dioxide emissions shall be recorded, maintained in a logbook and reported as part of in VIWAPA's quarterly excess emission report. All sulfur dioxide exceedances as determined by fuel sulfur content and fuel usage shall be reported in the quarterly report. If there are no exceedances during a quarter, a statement to this effect shall be included in the quarterly Excess Emission Report.

The quarterly excess emission reports required in this section shall be sent to

Region II CEM Coordinator
Air and Water Section, Monitoring and Management Branch
U.S. EPA Region II
2890 Woodbridge Avenue
Edison, New Jersey 08837

A Copy should also be sent to the CEPD and the DPNR at the address listed above.

IV. OTHER PERMIT CONDITIONS:

A. This facility is subject to the General Provisions of the NSPS (40 CFR, Part 60, Subpart A), and the NSPS for Stationary Gas Turbines (40 CFR, Part 60, Subpart GG).

B. VIWAPA shall meet all other applicable federal, state and local requirements, including those contained in the Virgin Islands State Implementation Plan (VISIP).

V. TESTING REQUIREMENTS:

A. VIWAPA shall conduct all performance tests in accordance with the following:

1. Conduct stack tests on the units 16, 17, 19 and 20 for all affected pollutants in accordance with the test methods published in 40 CFR Part 60 Appendix A and 40 CFR Part 51 Appendix M. All tests must be conducted within 60 days after achieving shakedown, but no later than 180 days after initial startup.

2. Obtain approval of a stack test protocol. VIWAPA may use Test Method 19 in lieu of Test Method 2 to determine stack gas volume. A detailed description of the sampling point locations, sampling equipment, sampling and analytical procedures, data reporting forms, quality assurance procedures and operating conditions for such tests must be submitted to the EPA.
3. Notify EPA and VIDPNR at least 30 days prior to actual testing.

4. Provide permanent sampling and testing facilities as may be required by the EPA to determine the nature and quantity of emissions from each unit. Such facilities shall conform with all applicable laws and regulations concerning safe construction and safe practice.

B. The EPA reserves the right to require additional stack testing of the pollutants for which an emission limitation has been set in Section I of the permit.