

AIR QUALITY PERMIT

Permit No.
4911-103-0011-P-01-0

Effective Date
July 23, 2002

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to or in effect under that Act,

GenPower Rincon, L.L.C.
1040 Great Plain Avenue
Needham, MA 02492-2517

Is issued a Permit for the following: The construction and operation of a natural gas-fired and combined-cycle electric generating plant with a nominal rating of 528 MW and a peak rating of 640 MW. This plant includes two combustion turbines (171.7 MW each), two duct fired heat recovery steam generators, one steam turbine, one auxiliary boiler, one emergency diesel fired generator, and one diesel fire pump.

Facility location: Rincon Power Plant
Commerce Park Drive
Rincon, Georgia 31326 (Effingham County)

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq. the Rules, Chapter 391-3-1, adopted or in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in the application dated **December 8, 2000 [Application No. 12718]**, additional information listed in Note A, and supporting data entered therein or attached thereto, or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditions upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 17 pages, which 17 pages are a part of this Permit.

Director
Environmental Protection Division

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NOTE A

Subsequent Submittals of Application No. 12718 dated December 8, 2000

| Date | Description |
|-------------------|---|
| September 5, 2001 | Source determination |
| April 1, 2002 | Name change to GenPower Rincon, LLC. |
| May 3, 2002 | Revised BACT limits for NO _x , CO, VOC, and PM |
| May 13, 2002 | Calculation of facility-wide PTE for CO |
| May 17, 2002 | Calculation of annual NO _x and CO limit per CT/HRSG stack and new proposed completion of construction date |
| May 28, 2002 | Revised cost analysis for FGR |

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NOTE B

FACILITY DESCRIPTION

| Emission Units | | Air Pollution Control Devices | |
|----------------|---|-------------------------------|---------------------------|
| ID No. | Description | ID No. | Description |
| GT1 | Gas Combustion Turbine Unit 1 (GE 7FA) | DN1 SC1 | Dry Low NOx Burner SCR |
| HR1 | HRSG, for combustion turbine GT1, supplementally fired by Duct Burner Unit 1. | LN1 SC1 | Low NOx Burner SCR |
| GT2 | Gas Combustion Turbine Unit 2 (GE 7FA) | DN2 SC2 | Dry Low NOx Burner SCR |
| HR2 | HRSG, for combustion turbine GT2, supplementally fired by Duct Burner Unit 2. | LN2 SC2 | Low NOx Burner SCR |
| AB3 | Auxiliary Boiler rated at a maximum heat input of 83 MM Btu/hr | LN3 | Low NOx Burner |
| EG4 | 500 kW Emergency Generator (diesel) | NA | None |
| FP5 | 260 hp Fire Pump (diesel) | NA | None |
| CT6-17 | Cooling Tower | DE6-17 | Drift Eliminator |

HRSG = Heat Recovery Steam Generator

SCR = Selective Catalytic Reduction

Combined Cycle Combustion Turbine System means one combustion turbine, one duct burner, and their combined exhaust.

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1.0 General Requirements

- 1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall to the extent practicable maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- 1.2 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The test results shall be submitted to the Division within 30 days of the completion of the testing. Any tests shall be performed and conducted using methods and procedures, which have been previously approved by the Division.
- 1.3 The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the division the opportunity to witness and/or audit the test, and shall provide with a notification a test plan in accordance with Division guidelines.

2.0 Allowable Emissions

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

- 2.1 The Permittee shall commence construction of one or all of the following within 18 months of the date of issuance of this Permit: GT1/HR1, GT2/HR2, AB3, EG4, FP5, and CT6-17. Approval to construct this facility shall become invalid if construction is not commenced by that date. For purposes of this Permit, the definition of "commence" is given in 40 CFR 52.21(b)(9). [40 CFR 52.21(r)]
- 2.2 The construction of GT1/HR1, GT2/HR2, AB3, EG4, FP5, and CT6-17 shall be completed no later than June 30, 2005. In the event that construction of any of these units is not completed by the date specified, and absent approval by the Division for an extension of the completion date, this Permit shall become null and void with respect to that unit and all units yet to be constructed. The Permit will remain in full force and effect with regard to any units for which construction has been completed by the applicable construction deadline. [40 CFR 52.21(r)(2)]
- 2.3 For purposes of this permit, gas combustion turbine GT1 and duct burner HR1 share a common stack; and gas combustion turbine GT2 and duct burner HR2 share a common stack. [40 CFR 52.21(j)]

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- 2.4 The Permittee shall only fire natural gas in gas combustion turbines GT1 and GT2.
[40 CFR 52.21(j); 40 CFR 60.333(b)(subsumed); and 391-3-1-.02(2)(g)(subsumed)]
- 2.5 The Permittee shall only fire natural gas in duct burners HR1 and HR2.
[40 CFR 52.21(j); 40 CFR 60.43a(b)(2)(subsumed); and 391-3-1-.02(2)(g)(subsumed)]
- 2.6 The Permittee shall only fire natural gas in auxiliary boiler AB3.
[40 CFR 52.21(j) and 391-3-1-.02(2)(g)(subsumed)]
- 2.7 The Permittee shall not burn in emergency generator EG4 and fire pump FP5, fuel oil that contains sulfur in excess of 0.05 weight percent.
- 2.8 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the stacks defined in Condition No. 2.3, each, NO_x emissions in excess of 116 tons during any twelve consecutive months. [40 CFR 52.21(j)]
- 2.9 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the stacks defined in Condition No. 2.3, each, CO emissions in excess of 96.1 tons during any twelve consecutive months. [40 CFR 52.21(j)]
- 2.10 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from each combined combustion turbine and duct burner stack, noted in Condition No. 2.3, any gases which
 - a. Contain nitrogen oxides (NO_x) in excess of 3.0 ppmvd, corrected to 15% oxygen.
[40 CFR 52.21(j); 40 CFR 60.332(a)(1) for the combustion turbines (subsumed); 40 CFR 60.44a(d)(1) and 40 CFR 60.46a(b) for the duct burners (subsumed)]
 - b. Contain carbon monoxide (CO) in excess of 2.0 ppmvd @ 15% O₂.
[40 CFR 52.21(j)]
 - c. Contain particulate matter in excess of 0.011 pounds per million Btu heat input.
[40 CFR 52.21(j); 391-3-1-.02(2)(d) for the duct burners (subsumed); 40 CFR 60.42a(a)(1) and 40 CFR 60.46a(a) for the duct burners (subsumed)]
 - d. Contain volatile organic compounds (VOC) in excess of 2.0 ppmvd @ 15% O₂, as methane.
[40 CFR 52.21(j)]
 - e. Exhibit greater than 10 percent opacity.
[40 CFR 52.21(j); 40 CFR 60.42a(b) for the duct burners(subsumed); and 391-3-1-.02(2)(b) (subsumed)]

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- 2.11 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from Boiler AB3, any gases which
- a. Contain NO_x in excess of 0.055 pounds per million Btu heat input.
[40 CFR 52.21(j)]
 - b. Contain CO in excess of 0.093 pounds per million Btu heat input.
[40 CFR 52.21(j)]
 - c. Contain particulate matter in excess of 0.0084 pound per million Btu heat input.
[40 CFR 52.21(j); 391-3-1-.02(2)(d) (subsumed)]
 - d. Contain VOC in excess of 0.004 pounds per million Btu heat input, as methane.
[40 CFR 52.21(j)]
 - e. Exhibit greater than 10 percent opacity.
[40 CFR 52.21(j); and 391-3-1-.02(2)(d) (subsumed)]
- 2.12 The Permittee shall limit the hours of operation of Boiler AB3, such that the total hours of operation of the boiler does not equal or exceed 1,000 hours during any twelve consecutive months.
[40 CFR 52.21(j)]
- 2.13 The Permittee shall limit the hours of operation of Generator EG4 and of Pump FP5 such that the total hours of operation of each unit does not equal or exceed 250 hours during any twelve consecutive months.
[40 CFR 52.21(j)]
- 2.14 The Permittee shall install and operate, as BACT for PM/PM₁₀ on Cooling Tower CT6-17, drift eliminators for draft cooling.
[40 CFR 52.21(j)]
- 2.15 The following definitions of startup and shutdown as used in Condition Nos. 8.11 and 8.15 shall apply: [40 CFR 52.21 (j)]
- a. Cold startup is defined as a startup to combined cycle operation following a complete shutdown lasting at least 72 hours. Hours allocated to a cold startup are zero to four (4) hours until the unit reaches steady state load operation. Steady state operation shall be reached when the combustion turbine reaches minimum load (50%) and the steam turbine is declared available for load changes.
 - b. Warm startup is defined as a startup to combined cycle operation following a complete shutdown lasting 8 hours or more, but less than 72 hours. Hours allocated to a warm startup are zero to two (2) hours until the unit reaches steady state load operation. Steady state operation shall be reached when the combustion turbine reaches minimum load (50%) and the steam turbine is declared available for load changes.

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- c. Hot startup is defined as a startup to combined cycle operation following a complete shutdown lasting less than 8 hours. Hours allocated to a hot startup are zero to one (1) hour until the unit reaches steady state load operation. Steady state operation shall be reached when the combustion turbine reaches minimum load (50%) and the steam turbine is declared available for load changes.
- d. Unit shutdown is defined as the period of time from steady state operation to cessation of combustion turbine firing. This period shall not exceed 60 minutes for planned shutdown.

3.0 Process and Control Equipment

Not applicable.

4.0 Performance Testing

- 4.1 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**. The methods for the determination of compliance with emission limits listed under Section 2.0 which pertain to the emission units listed in Note B are as follows:
 - a. Method 1 shall be used for the determination of sample point locations,
 - b. Method 2 shall be used for the determination of stack gas flow rate,
 - c. Method 3 or 3A shall be used for the determination of stack gas molecular weight,
 - d. Method 3B shall be used for the determination of the emissions rate correction factor or excess air, Method 3A may be used as an alternative;
 - e. Method 4 shall be used for the determination of stack gas moisture,
 - f. Method 5T shall be used for the determination of the particulate matter concentration from each combined cycle combustion turbine system, the sampling time for each run shall be one hour,
 - g. Method 7E shall be used for the determination of nitrogen oxides emissions, the sampling time for each run shall be one hour,
 - h. Method 9 and the procedures contained in Section 1.3 of the above reference document shall be used for the determination of opacity,
 - i. Method 10 shall be used for the determination of carbon monoxide concentration, the sampling time for each run shall be one hour,

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- j. Method 19 shall be used for the determination of particulate matter, carbon monoxide, and nitrogen oxides emission rates,
- k. Method 20 shall be used for the determination of nitrogen oxides concentration from the combustion turbines for 40 CFR 60 Subpart GG purposes only,
- l. South Coast Air Quality Management District (Los Angeles, CA) Method 25.3 (Determination of Low Concentration Non-Methane Non-Ethane Organic Compounds Emissions from Clean Fueled Combustion Sources) shall be used for the measurement of volatile organic compounds. The sampling time for each run should be one hour, and
- m. ASTM Test Method D129, D1552, D2622, or D4294 shall be used for the determination of fuel sulfur content.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections, which, in his opinion, render those methods or procedures, or portions thereof, more reliable.

[391-3-1-.02(3)(a); 40 CFR 60.48a for duct burners (subsumed) and 40 CFR 60.335(c) and (d) for combustion turbines (subsumed)]

- 4.2 Within 60 days after achieving the maximum production rate at which each combined cycle combustion turbine system will be operated, but not later than 180 days after the initial startup of each turbine, the Permittee shall conduct the following performance tests and furnish to the Division a written report of the results of such performance tests:
 - a. Performance tests on each combined cycle combustion turbine system for nitrogen oxides emissions to verify compliance with Condition No. 2.10.
[40 CFR 52.21, 40 CFR 60.13, 40 CFR 60.46a(e), (f), (g), (h), and (i), 40 CFR 60.48a for duct burners (subsumed); 40 CFR 60.335 (subsumed), 391-3-1-.02(6)(b)1.(i), and Approval of Routine Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated Under New Source Performance Standards approved by U.S. EPA, May 26, 2000.]
 - b. Performance tests on each combined cycle combustion turbine system for carbon monoxide at base load and at 50 percent load.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
 - c. Performance tests on each combined cycle combustion turbine system for volatile organic compounds at base load and at 50 percent load.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]

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- 4.3 Within 60 days after achieving the maximum production rate at which auxiliary boiler AB3 will be operated, but not later than 180 days after the initial startup, the Permittee shall conduct the following performance tests and furnish to the Division a written report of the results of such performance tests:
- a. Performance tests on auxiliary boiler AB3 for nitrogen oxides at the maximum heat input rate for the equipment.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
 - b. Performance tests on auxiliary boiler AB3 for carbon monoxide at the minimum point and maximum point of the normal operating range for the equipment.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]

5.0 Monitoring Requirements

- 5.1 Any continuous monitoring system required by the Permit shall be in continuous operation and data recorded as set forth in this Permit during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]
- 5.2 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated pollutants on the following equipment. Each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1, 40 CFR 52.21 and 40 CFR 60.334]
- a. A Continuous Emissions Monitoring System (CEMS) for measuring NO_x concentration and diluent (either oxygen or carbon dioxide) discharge to the atmosphere from each combustion turbine and duct burner combined stack. The one-hour average nitrogen oxides emissions rates shall also be recorded in pound per million Btu heat input, and ppm, corrected to 15 percent oxygen on a dry basis. [40 CFR 52.21; 391-3-1-.02(6)(b)1.; 40 CFR 60.13; 40 CFR 60.47a(c), and (l) for duct burners (subsumed); 40 CFR 60.47a(f), (g), and (l) for duct burners (subsumed)]
 - b. A Continuous Emissions Monitoring System (CEMS) for measuring carbon monoxide concentration, and diluent (either oxygen or carbon dioxide) discharge to the atmosphere from each combustion turbine and duct burner combined stack. The one-hour average carbon monoxide emissions rates shall also be recorded in pound per million Btu heat input. [40 CFR 52.21 and 391-3-1-.02(6)(b)1]

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- 5.3 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
- a. The quantity of natural gas, in cubic feet, burned in auxiliary boiler AB3. Data shall be recorded continuously.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]
 - b. The quantity of natural gas, in cubic feet, burned in the combustion turbines GT1 and GT2. Data shall be recorded continuously.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]
 - c. The quantity of natural gas, in cubic feet, burned in duct burners HR1 and HR2. Data shall be recorded continuously.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]
 - d. The cumulative total hours of operation, during all periods of operation, for each of the following: auxiliary boiler AB3, emergency generator EG4, and fire pump FP5. Data shall be recorded monthly.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21].
- 5.4 The sulfur content of the natural gas burned in combustion turbines GT1 and GT2 shall be monitored by the submittal of a semiannual analysis of the gas by supplier or by the Permittee.
[Authority for Approval of Custom Fuel Monitoring Schedules under NSPS GG approved by U.S. EPA August 14, 1987 and 391-3-1-.02(6)(b)1]
- 5.5 No determination of the nitrogen content of the natural gas burned in the combustion turbines shall be required.
[Authority for Approval of Custom Fuel Monitoring Schedules under NSPS GG approved by U.S. EPA August 14, 1987 and 40 CFR 60.334(b)(subsumed)]
- 5.6 For each hour of operation of the combustion turbines (GT1 and GT2), the Permittee shall measure and record the combustor inlet absolute pressure on each combustion turbine in operation, as well as the ambient temperature (°F) and absolute humidity (grams water/grams air) at the facility. In lieu of measuring the ambient temperature and absolute humidity, the Permittee may obtain from the nearest National Weather Service station hourly records of the ambient temperature, relative humidity, and barometric pressure for the hours of operation during that calendar day.
[391-3-1-.02(6)(b)1, and Approval of Routine Alternative Testing and Monitoring Procedures for Combustion Turbines Regulated Under New Source Performance Standards Approved by U.S. EPA Region 4, May 26, 2000]

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- 5.7 The Permittee shall, using the procedures of Appendix F, Procedure 1 (*Quality Assurance Requirements for Gas Continuous Emissions Monitoring Systems Used for Compliance Determination*) contained in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**, assess the quality and accuracy of the data acquired by the carbon monoxide CEMS required by Condition No. 5.2.b. The Permittee shall maintain records specifying the results of the daily CEMS drift tests and quarterly accuracy assessments under Appendix F, Procedure 1. In addition, the Permittee shall maintain records which identify the Out-of-Control Periods (as defined in Appendix F, Procedure 1) for the CO CEMS during each calendar quarter. The following exceptions to Appendix F, Procedure 1 are allowed: [391-3-1-.02(6)(b)1]
- a. The cylinder gas audit (CGA) is only required to be conducted in a calendar quarter if the turbine is operated during the quarter.
 - b. A Relative Accuracy Test Audit (RATA) shall be conducted annually or every four operating quarters (not to exceed eight calendar quarters) which ever is greater. For the purpose of this condition an operating quarter is defined as any calendar quarter during which the turbine is operated.
- 5.8 Permittee shall obtain CO emissions data for at least 75 percent of the operating hours for each turbine during each calendar month that a turbine is operated. If this minimum data requirement is not met using the CO CEMS required by Condition No. 5.2.b, the Permittee may supplement the emissions data with data obtained by conducting sampling using the methods prescribed in Condition No. 4.1. The Permittee shall maintain records which identify periods during each calendar month for which CO emissions data have not been obtained for 75 percent of the turbine operating hours during the month, including reasons for not obtaining sufficient data and a description of corrective actions taken. [391-3-1-.02(6)(b)1]

6.0 Ambient Monitoring

Not applicable

7.0 Fugitive Emissions

- 7.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

8.0 Notification, Reporting, and Record Keeping

Record Keeping Requirements

- 8.1 All records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division. The records shall be retained for at least five (5) years following the date of entry. [391-3-1-.02(2)(6)(b)1(i)]

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- 8.2 The Permittee shall retain monthly records of natural gas usage in each combustion turbine, GT1 and GT2, and each duct burner, HR1 and HR2.
[391-3-1-.02(6)(b)1.(i) and 40 CFR 52.21]
- 8.3 The Permittee shall retain monthly records of natural gas usage in auxiliary boiler AB3.
[391-3-1-.02(6)(b)1.(i), 40 CFR 52.21, Alternative Fuel Usage Recordkeeping Frequency approved by EPA August 14, 1996, and 40 CFR 60.48c(g)(subsumed)]
- 8.4 The Permittee shall use the hour meters required by Condition No. 5.3d to determine and record the following: [391-3-1-.02(2)(6)(b)1 and 40 CFR 52.21]
- a. The net operating hours for each of the following during every calendar month: auxiliary boiler AB3, emergency generator EG4, and fire pump FP5.
 - b. The total operating hours for each of the following for the twelve consecutive month period ending with each calendar month: auxiliary boiler AB3, emergency generator EG4, and fire pump FP5.
- These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
- 8.5 The Permittee shall determine and record the mass emission rate (lb/hr) of nitrogen oxides from each combined cycle combustion turbine system. The mass emission rate from each stack, as specified in Condition No. 2.3, shall be calculated by multiplying the total NO_x emissions in units of pounds per million BTU determined in accordance with the procedures of 40 CFR Part 75 by the total heat input to the combustion turbine and duct burner for that hour determined in accordance with the procedures of 40 CFR 75, Appendix D. For the purposes of this condition, the data substitution and bias corrections of Part 75 shall be utilized.
[40 CFR 52.21; 391-3-1-.02(6)(b)1.(i); and 40 CFR 60.47a(k) and (l) for duct burners (subsumed)]
- 8.6 The Permittee shall use the records required by Condition No. 8.5 to determine the monthly mass emission rate, in tons per month, of NO_x from each combined cycle combustion turbine system. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[391-3-1-.02(6)(b)1. and 40 CFR 52.21]
- 8.7 The Permittee shall use the records required by Condition No. 8.6 to determine the twelve consecutive month total of NO_x emissions (in tons) from each combined cycle combustion turbine system, for each month. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous 11 consecutive months. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[391-3-1-.02(6)(b)1. and 40 CFR 52.21]

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- 8.8 The Permittee shall, using the hourly heat input rate (million Btu per hour), determined in accordance with the procedures of Appendix F, 40 CFR Part 75, and the one-hour average carbon monoxide (CO) emission rate (pound per million Btu), determined in accordance with Condition No. 5.2.b, calculate the hourly carbon monoxide mass emission rate (pounds per hour) for each hour of operation of each turbine. Only the one-hour average carbon monoxide emission rates (pound per million Btu) that have been determined, in accordance with the procedures required by Condition No. 5.7, to be valid hourly emission rates shall be used to calculate hourly mass emission rates.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]
- 8.9 The Permittee shall use the valid hourly CO mass emission rates (pounds per hour), determined in accordance with the requirements of Condition No. 8.8, and all hourly mass emissions rates acquired in order to meet the minimum data requirement of Condition No. 5.8 to determine the monthly mass emission rate, in tons per month, of carbon monoxide, from each combustion turbine, GT1 and GT2. The carbon monoxide mass emission rate from each turbine shall be calculated as follows:
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]
- CO emissions (tons/month) = $ECO * (TOT / TGD) / 2000$
- Where, ECO equals the total carbon monoxide mass emissions (sum of the valid hourly mass emissions including all hourly mass emissions data acquired to meet the minimum data requirement) for the month, TOT equals the total operating time (hours) of the combustion turbine during the month, and TGD equals the number of hours of valid emissions data including all hourly emissions data acquired to meet the minimum data requirement contained in Condition No. 5.8. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
- 8.10 The Permittee shall use the records required by Condition No. 8.9 to determine the twelve consecutive month total of carbon monoxide emissions (in tons) from each combustion turbine, GT1 and GT2, for each. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[391-3-1-.02(6)(b)1(i) and 40 CFR 52.21]
- 8.11 The Permittee shall maintain the following records as they relate to the startup and shutdown of each combined cycle combustion turbine system:
[391-3-1-.02(6)(b)1(i) and 40 CFR 52.21]
- a. The type of startup initiated, per day; the hours attributed to the startup, and the hours attributed to shutdown. If the turbine was not in operation on any given day, the records shall so note.

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- 8.12 The Permittee shall verify and document that each shipment of diesel fuel oil received for combustion in emergency generator EG4 and fire pump FP5 complies with the requirements of Condition No. 2.7 of the Permit by either of the following means:
[391-3-1-.02(6)(b)1]
- a. Fuel oil receipts obtained from the fuel supplier certifying that the oil is diesel fuel oil and contains less than or equal to 0.05 percent sulfur, by weight.
 - b. Analysis of the fuel oil conducted by methods of sampling and analysis which have been specified or approved by the Division which demonstrates that the diesel fuel oil contains less than or equal to 0.05 percent sulfur, by weight.

Reporting Requirements

- 8.13 The Permittee shall furnish the Division written notification as follows:
[40 CFR 52.21; 40 CFR 60.7]
- a. A notification of the actual date of initial startup of each combined cycle combustion turbine system, postmarked within 15 days after such date. For purposes of this permit, "startup" shall mean the setting in operation of an affected facility for any purpose.
 - b. Certification that a final inspection has shown that construction of each combined cycle combustion turbine system has been completed in accordance with the application, plans, specifications and supporting documents submitted in support of this permit. The certification shall be included with the notification in paragraph (a).
- 8.14 In addition to any other reporting requirements of this Permit, the Permittee shall report to the Division in writing, within seven (7) days, any deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning, or emission control equipment for a period of four hours or more which results in excessive emissions.
- The Permittee shall submit a written report which shall contain the probable cause of the deviation(s), duration of the deviation(s), and any corrective actions or preventive measures taken.
[391-3-1-.02(6)(b)1.(iv)]
- 8.15 The Division may allow excess emissions in certain cases as described below.
- a. Excess emissions resulting from startup, shutdown, malfunction of any source which occur though ordinary diligence is employed shall be allowed provided that:
[391-3-1-.02(2)(a)7(i)]
 - i. The best operational practices to minimize emissions are adhered to;
 - ii. All associated air pollution control equipment is operated in a manner consistent with good air pollution control practice for minimizing emissions; and

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- iii. The duration of excess emissions is minimized.
 - c. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction are prohibited and are violations of this Permit.
[391-3-1-.02(2)(a)7(ii)]
 - d. Paragraphs (a) and (b) of this condition shall not apply if precluded by any other State or Federal regulation or specifically excluded in paragraph (d) of this condition.
[391-3-1-.02(2)(a)7(iii)]
 - e. Paragraphs (a) and (b) of this condition do not apply to Conditions Nos. 2.8 and 2.9 (tpy NOx and CO limits) regarding startup and shutdown emissions. Emissions during startup and shutdown shall be counted toward the mass emission limits in these permit conditions.
[391-3-1-.02(2)(a)7(iii)]
- 8.16 The Permittee shall submit a written report containing excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:
[391-3-1-.02(6)(b)1]
- a. A summary report of excess emissions, exceedances and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the above referenced document, including any failure to follow required work practice procedures.
 - b. Total operating time during each reporting period.
 - c. The magnitude of all excess emissions, exceedances and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence.
 - d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. The nature and cause of any malfunction(if known), the corrective action taken or preventive measures adopted.

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- e. The date and time identifying each period during which any required monitoring system or device was inoperative (including periods of malfunction) except for zero and span checks, and the nature of the repairs, adjustments, or replacement. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - f. Certification that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- 8.17 The Permittee shall maintain files of all measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These files shall be kept in a permanent form suitable for inspection and shall be maintained for a period of at least five (5) years following the date of such measurements, reports, maintenance and records.
[391-3-1-.03(2)(c)]
- 8.18 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition No. 8.16, the following excess emissions, exceedances, and excursions shall be reported:
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]
- a. Excess emissions: (means for the purpose of this Condition and Condition No. 8.16, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition No. 8.16.
 - b. Exceedances: (means for the purpose of this Condition and Condition No. 8.16, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)
 - i. Any three hour rolling average NO_x emission rate, which exceeds 3.0 ppmvd at 15% oxygen for each combined cycle combustion turbine system,
 - ii. Any three hour rolling average CO emission rate, which exceeds 2.0 ppmvd at 15% oxygen for each combined cycle combustion turbine system,
 - iii. Any time diesel fuel combusted in emergency generator EG4 and fire pump FP5 exceeds 0.05 percent sulfur by weight.
 - iv. Any twelve consecutive month total NO_x emissions (tons) from any combined cycle combustion turbine system, which exceeds 116 tons.
 - v. Any twelve consecutive month total CO emissions (tons) from any combined cycle combustion turbine system, which exceeds 96.1 tons.

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- vi. Any twelve consecutive month total hours of operation of emergency generator EG4 and fire pump FP5, each, which exceeds 250 hours.
 - vii. Any twelve consecutive month total hours of operation of auxiliary boiler AB3, which exceeds 1,000 hours.
 - viii. Any startup episode which exceeds the limit in Condition No. 2.15.
 - c. Excursions: (means for the purpose of this Condition and Condition No. 8.16, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
 - i. Any value of the natural gas sulfur content, as determined by Condition No. 5.4, which exceeds 0.5 grains per 100 standard cubic foot.
- 8.19 The Permittee shall submit a written report containing the following information for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]
- a. The twelve consecutive month total NO_x emissions (tons) from each combined cycle combustion turbine system for each month in the quarterly period.
 - b. The twelve consecutive month total CO emissions (tons) from each combined cycle combustion turbine system for each month in the quarterly period.
 - c. The twelve consecutive month total hours of operation of auxiliary boiler AB3, emergency generator EG4, and fire pump FP5, each, for each month in the quarterly reporting periods.

9.0 Modifications

- 9.1 Prior to any source commencing a modification as defined in Georgia Rule 391-3-1-.01(pp), which may result in air pollution and not exempted by Georgia Rule 391-3-1-.03(6), the Permittee shall submit a Permit application to the Division. The application shall be submitted sufficiently in advance of any critical data involved to allow adequate time for review, discussion, or revision of plans, if necessary. Such application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity of the plant before and after the change, and the anticipated completion date of the change. The application shall be in the form of a Georgia air quality Permit application to construct or modify (otherwise known as a SIP application) and shall be submitted on forms supplied by the Division, unless otherwise notified by the Division.

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10.0 Special Conditions

- 10.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.