

AIR QUALITY PERMIT

Permit No.
4911-263-0013-P-03-0

Effective Date
June 9, 2003

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 and in effect under that Act,

Oglethorpe Power Corporation
2100 East Exchange Place
P.O. Box 1349
Tucker, GA 30085-1349

Is issued a Permit for the following: The construction and operation of a peaking power plant consisting of six simple cycle Siemens Westinghouse combustion turbines, each with a nominal power output rating of 108 MW -T1, T2, T3, T4, T5, T6, three natural gas-fired fuel gas pre heaters H1, H2, H3, two storage tanks TK1, TK2, one diesel-fired emergency generator-G1, and one diesel-fired emergency fire water deluge supply pump-P1.

Facility location: Talbot Energy Facility
9125 Cartledge Road
Box Springs, GA 31801

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 and 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 **March 27, 2003 (Application No. 14400)**, 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 conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 19 pages, which 19 pages are a part of this Permit.

Director
Environmental Protection Division

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NOTE A

FACILITY DESCRIPTION

Emission Units		Air Pollution Control Devices	
ID No.	Description	ID No.	Description
T1	Siemens Westinghouse Model V84.2 simple cycle combustion turbine	LC1	Dry low NOx combustor
T2	Siemens Westinghouse Model V84.2 simple cycle combustion turbine	LC2	Dry low NOx combustor
T3	Siemens Westinghouse Model V84.2 simple cycle combustion turbine	LC3	Dry low NOx combustor
T4	Siemens Westinghouse Model V84.2 simple cycle combustion turbine	LC4	Dry low NOx combustor
T5	Siemens Westinghouse Model V84.2 simple cycle combustion turbine	LC5 WI	Dry low NOx combustor Water Injection (fuel oil firing)
T6	Siemens Westinghouse Model V84.2 simple cycle combustion turbine	LC6 WI	Dry low NOx combustor Water Injection (fuel oil firing)
H1	Natural gas-fired fuel gas heater	LC7	Low NOx combustor
H2	Natural gas-fired fuel gas heater	LC8	Low NOx combustor
H3	Natural gas-fired fuel gas heater	LC9	Low NOx combustor
TK1	Low-Sulfur diesel fuel Storage Tank (2 Million gallon)	N/A	N/A
TK2	Low-Sulfur diesel fuel Storage Tank (2 Million gallon)	N/A	N/A

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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 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 the 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 Emission 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 within 18 months of the date of issuance of this Permit. 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)]

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- 2.2 The construction of gas turbines T1, T2, T3, T4, Fuel Gas Heaters H1, H2 shall be completed by December 30, 2002. Construction of gas turbines T5, T6, and fuel gas heater H3, shall be completed by December 30, 2003. Construction of fuel oil storage tanks TK1 and TK2 shall be completed by October 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 The Permittee shall fire only pipeline quality natural gas in combustion turbines T1, T2, T3, and T4. In turbines T5 and T6, Permittee shall fire pipeline quality natural gas or low sulfur diesel fuel. [40 CFR 52.21(j); 40 CFR 60.333(b)(subsumed) and 391-3-1-.02(2)(g) (subsumed)]
- 2.4 The Permittee shall only fire pipeline quality natural gas in fuel gas heaters H1, H2, and H3. [40 CFR 52.21(j), and 391-3-1-.02(2)(g) (subsumed)]
- 2.5 The Permittee shall not burn in the combustion turbines T5 and T6, fuel oil that contains sulfur in excess of 0.05 weight percent. [40 CFR 52.21(j)]
- 2.6 The Permittee shall install and operate, as BACT for NO_x on each combustion turbine, (T1, T2, T3, T4, T5, and T6) dry low NO_x combustors for natural gas combustion.
[40 CFR 52.21(j)]
- 2.7 The Permittee shall not operate any of the combustion turbines more than the hourly operational limits specified in this condition during any twelve consecutive month period.
[40 CFR 52.21(j)]
- a. For combustion turbines T1, T2, T3, and T4, each turbine may not be operated for more than 3,750 hours during any twelve consecutive month period.
- b. For combustion turbines T5 and T6, each turbine may not be operated for more than 4,200 hours, including oil-fired operation, during any twelve consecutive month period.

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- 2.8 The Permittee shall not operate turbines T5 or T6 on fuel oil for more than the hourly operational limits specified in this condition.
[40 CFR 52.21(j)]
- a. The Permittee shall not operate turbines T5 or T6 on fuel oil for more than 450 hours each during any twelve consecutive month period.
 - b. The Permittee shall not operate turbine T5 or T6 for more than 100 hours each on fuel oil during the period of May 1 to September 30 each year.
- 2.9 The Permittee shall install and operate, as BACT for NO_x on combustion turbines T5 and T6, water injection for fuel oil combustion.
[40 CFR 52.21(j)]
- 2.10 The Permittee shall install and operate, as BACT for NO_x on gas-fired fuel gas heaters H1, H2 and H3, low NO_x burners for natural gas combustion.
[40 CFR 52.21(j)]
- 2.11 The Permittee shall not discharge or cause the discharge into the atmosphere from any combustion turbine, when firing natural gas in the turbine, any gases which:
[40 CFR 52.21(j)]
- a. Contain nitrogen oxides in excess of 12 ppmvd, corrected to 15% oxygen.
[40 CFR 52.21(j); 40 CFR 60.332(a)(1) (subsumed)]
 - b. Contain carbon monoxide in excess of 0.019 pounds per million Btu heat input. [Note: equivalent to a BACT limit of 8 ppmvd.]
[40 CFR 52.21(j)]
 - c. Contain particulate matter in excess of 0.023 pounds per million Btu heat input. [40 CFR 52.21(j)]
 - d. Contain volatile organic compounds in excess of 0.0086 pounds per million Btu heat input, as methane. [Note: equivalent to a BACT limit of 6 ppmvd.]
[40 CFR 52.21(j)]
 - e. Exhibit greater than 10 percent opacity. [40 CFR 52.21(j) (subsumed); and 391-3-1-.02(2)(b) (subsumed)]

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- 2.12 The Permittee shall not discharge or cause the discharge into the atmosphere from the combustion turbines T5 and T6, when firing low sulfur diesel fuel in the turbine, any gases which:
[40 CFR 52.21(j)]
- a. Contain nitrogen oxides in excess of 42 ppmvd, corrected to 15% oxygen.
[40 CFR 52.21(j); 40 CFR 60.332(a)(1) (subsumed)]
 - b. Contain carbon monoxide in excess of 0.038 pounds per million Btu heat input. [Note: equivalent to a BACT limit of 15 ppmvd.]
 - c. Contain particulate matter in excess of 0.023 pounds per million Btu heat input. [40 CFR 52.21(j)]
 - d. Contain volatile organic compounds in excess of 0.0149 pounds per million Btu heat input, as methane. [Note: equivalent to a BACT limit of 10 ppmvd].
[40 CFR 52.21(j)]
 - e. Exhibit greater than 10 percent opacity. [40 CFR 52.21(j); and 391-3-1-.02(2)(b) (subsumed)]
- 2.13 The Permittee shall not discharge or cause the discharge, into the atmosphere, from the gas-fired fuel gas preheaters H1, H2, and H3 any gases, which contain NO_x in excess of 30 ppmvd, corrected to 15% oxygen. [40 CFR 52.21(j)]
- 2.14 The Permittee shall not discharge or cause the discharge, into the atmosphere, from the gas-fired fuel gas preheaters H1, H2, and H3 any gases, which contain carbon monoxide in excess of 0.022 lb/MMBtu heat input, LHV basis.
[40 CFR 52.21(j)]
- 2.15 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from each combustion turbine, any gases which:
[40 CFR 52.21(j)]
- a. Contain NO_x emissions, including startup and shutdown, in excess of 1,365 pounds per day while firing natural gas.
 - b. Contain NO_x emissions, including startup and shutdown, in excess of 5,751 pounds per day while firing fuel oil (T5 and T6 only).
 - c. Contain CO emissions, including startup and shutdown, in excess of 438 pounds per day while firing natural gas.

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- d. Contain CO emissions, including startup and shutdown, in excess of 833 pounds per day while firing fuel oil (T5 and T6 only).
- e. For purposes of this Permit, a “day” means a 24-hour period between 12:00 midnight and the following midnight. These limits include emissions during startup and shutdown during the 24-hour period.

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 5, 5T or Method 17, as applicable, shall be used for the determination of particulate matter concentration,
 - g. Method 7E shall be used for the determination of nitrogen oxide 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 and carbon monoxide 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. Method 25A shall be used to determine volatile organic compound emissions as methane. The sampling time for each run shall 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); 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 simple cycle combustion turbine will be operated, but not later than 180 days after initial startup of each turbine, the Permittee shall conduct the following performance tests on each combustion turbine to demonstrate compliance with BACT emission limits listed in Section 2 of this permit and furnish to the Division a written report of the results of such performance tests. Fuel oil source tests shall be conducted within 60 days after achieving the maximum production rate at which T5 and T6 will be operated on fuel oil, but not later than 180 days after the first firing of fuel oil:

- a. Performance tests on each simple cycle combustion turbine for nitrogen oxides emissions while firing natural gas, to demonstrate compliance with the nitrogen oxides emission standard in Condition 2.11a.
[40 CFR 52.21, 40 CFR 60.13, (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]

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- b. Performance tests on the simple cycle combustion turbines T5 and T6 for nitrogen oxides while firing low sulfur diesel fuel to demonstrate compliance with the nitrogen oxide emission standard in Condition 2.12a. [40 CFR 52.21, 40 CFR 60.13, (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]
- c. Performance tests on each simple cycle combustion turbine for carbon monoxide while firing natural gas at base load and at 55% of base load, to demonstrate compliance with the carbon monoxide emission standard in Condition 2.11b. [40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
- d. Performance tests on simple cycle combustion turbines T5 and T6 for carbon monoxide while firing fuel oil at base load and at 55% of base load, to demonstrate compliance with the carbon monoxide emission standard in Condition 2.12b. [40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
- e. Performance tests on each simple cycle combustion turbine for VOC while firing natural gas at base load and at 55% of base load, to demonstrate compliance with the VOC emission standard in Condition 2.11d. [40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
- f. Performance tests on simple cycle combustion turbines T5 and T6 for VOC while firing fuel oil at base load and at 55% of base load, to demonstrate compliance with the VOC emission standard in Condition 2.12d. [40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
- g. Performance tests on simple cycle combustion turbines T5 and T6 for PM while firing fuel oil to demonstrate compliance with condition 2.12c. [40 CFR 52.21; and 391-3-1-.02(6)(b)1.(i)]
- h. Visible emission tests on simple cycle combustion turbines T5 and T6 while firing fuel oil to demonstrate compliance with condition 2.12e. [40 CFR 52.21; and 391-3-1-.02(6)(b)1.(i)]
- i. The performance tests for CO and VOC (for both natural gas and fuel oil) shall be conducted concurrently. [40 CFR 52.21; and 391-3-1-.02(6)(b)1.(i)]

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- 4.3 The Permittee shall conduct the following performance tests no later than 10 days after the particular combustion turbine to be supplied by the fuel gas heater is tested and shall furnish to the Division a written report of the results of such performance tests:
- a. Performance test on a gas-fired fuel gas preheater 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. If the results of the performance test are greater than 80% of the 30 ppm NO_x BACT limit (i.e. greater than 24 ppm @ 15% O₂), then the Permittee shall conduct performance tests for nitrogen oxides on the other fuel gas heaters within 90 days after the initial tests under paragraph (a) or within 60 days of initial startup, which ever is later.

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]

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- 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, 40 CFR 75 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 simple cycle combustion turbine. The one-hour average nitrogen oxide emission 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]
 - 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 simple cycle combustion turbine. 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]
- 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 the fuel gas heaters. Data shall be recorded monthly. [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. Data shall be recorded hourly for each combustion turbine in operation firing natural gas. [391-3-1-.02(6)(b)1, 40 CFR 52.21]
 - c. The cumulative total hours of operation, during all periods of operation, for each of the following: T1, T2, T3, T4, T5, and T6. Data shall be recorded monthly. [391-3-1-.02(6)(b)1 and 40 CFR 52.21].
 - d. The cumulative total hours of operation, during periods the combustion turbines T5 and T6 are fired with low sulfur diesel fuel. Data shall be recorded monthly. [391-3-1-.02(6)(b)1 and 40 CFR 52.21].

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- 5.4 The sulfur content of the natural gas burned in the combustion turbines shall be monitored by the submittal of a semiannual analysis of the gas by the supplier or by the Permittee.
[391-3-1-.02(6)(b)1.; 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 and 40 CFR 60.334(b)(subsumed)]
- 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 The Permittee shall monitor the sulfur content of the low sulfur diesel fuel burned in the turbines by either of the following methods:
- a. Obtaining from the fuel supplier fuel oil receipts, certifying that the fuel oil is low sulfur diesel fuel and contains less than or equal to 0.05 percent sulfur, by weight; or
 - b. By analysis of the sulfur content of each shipment of fuel oil conducted by sampling and analysis methods specified or approved by the Division, which demonstrate that the sulfur content of fuel oil is less than or equal to 0.05 percent sulfur, by weight.

No determination of the nitrogen content of the low sulfur diesel fuel shall be required. For the purpose of demonstrating compliance using method (b), multiple truckloads of diesel fuel may constitute a single shipment, provided such trucks arrive at the facility in a contemporaneous manner.
[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 and 40 CFR 60.334(b)(subsumed)]

- 5.7 For each hour of operation of the combustion turbines (T1, T2, T3, T4, T5 and T6), the Permittee shall measure and record the combustor inlet absolute pressure on each combustion turbine in operation, as well as the ambient temperature (^oF) 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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- 5.8 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 5.2. b. [391-3-1-.02(6)(b)1]
- 5.9 The 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 5.2.b, the Permittee may supplement the emissions data with data obtained by conducting sampling using the methods prescribed in Condition 4.1.
[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 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 submission to the Division, 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(10)(d)1(i), 391-3-1-.02(2)(6)(b)1(i)]
- 8.2 The Permittee shall use the hour meters required by Condition 5.3c and 5.3d to determine and record the following:
[391-3-1-.02(2)(6)(b)1 and 40 CFR 52.21]

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- a. The net operating hours for each of the following during every calendar month: T1, T2, T3, T4, T5, and T6.
- b. The total operating hours for: T1, T2, T3, T4, T5, and T6, for the twelve consecutive month period ending with each calendar month.
- c. The net operating hours for combustion turbines T5 and T6 when fired with low sulfur diesel fuel during every calendar month.
- d. The total operating hours for combustion turbines T5 and T6 when fired with low sulfur diesel fuel for the twelve consecutive month period ending with each calendar month.
- e. The Permittee shall compile these monthly records within thirty days of the last day of the month of record.

These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.

- 8.3 The Permittee shall retain monthly records of the amount of natural gas consumption in each combustion turbine and fuel oil consumption in combustion turbines T5 and T6.
[391-3-1-.02(6)(b) 1.(i); 40 CFR 52.21]
- 8.4 The Permittee shall retain monthly records of natural gas usage in the gas-fired fuel gas preheaters.
[391-3-1-.02(6)(b)1.(i), 40 CFR 52.21 and 40 CFR 60.48c(g)(subsumed), and Alternative Fuel Usage Recordkeeping Frequency Approved by EPA August 14, 1996]
- 8.5 The Permittee shall retain records of the dimension of and an analysis showing the capacity of each fuel oil storage tank (source codes TK1 and TK2). This information shall be available for inspection or submittal to the Division for the life of each storage tank. [40 CFR 70.6(a)(3)(i), 40 CFR 60.116b(a) and 40 CFR 60.116b(b)]
- 8.6 The Permittee shall use the data obtained from Condition Nos. 5.2.a and 5.2b to compute the daily NO_x and CO mass emission rate in pounds per day from each combustion turbine (T1, T2, T3, T4, T5, and T6). This emission rate must include emissions from startup, and shutdown. The Permittee shall compute this value for every calendar day in which one or more of the turbines are in operation. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.

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[40 CFR 52.21]

8.7 The Permittee shall maintain the following records as they relate to the startup and shutdown of each combustion turbine (T1, T2, T3, T4, T5, and T6):
[391-3-1-.02(6)(b)1(i) and 40 CFR 52.21]

a. The total NO_x and CO emissions from each turbine each day including emissions from startup and shutdown.

8.8 The Division will deal with excess emissions 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

iii. The duration of excess emissions is minimized.

b. 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)]

c. 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)]

d. Paragraphs (a) and (b) of this condition do not apply to Condition 2.16 [lb/day NO_x and CO limits] regarding startup and shutdown emissions. Emissions during startup and shutdown shall be counted toward the mass emission limits in this permit condition. [391-3-1-.02(a)7(iii)]

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Reporting Requirements

- 8.9 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 combustion turbine defined in Note B 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 combustion turbine defined in Note B has been completed in accordance with the application, plans, specifications and supporting documents submitted in support of this permit.
 - c. A notification of the actual date of firing of low sulfur diesel fuel in combustion turbines T5 and T6 postmarked within 15 days after such date.
 - d. A notification of the completion of construction and the first filling of the fuel oil storage tanks listed in Note A postmarked within 15 days after such date.
- 8.10 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 firing, 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) and 391-3-1-.03(10)(d)1(i)]
- 8.11 The Permittee shall submit a report of the following information for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. The reports shall be postmarked by the 30th day following the end of the quarterly period (April 30, July 30, October 30, and January 30, respectively).
- a. Hours of operation of combustion turbines T5 and T6 when fired with fuel oil for each month during the quarter,

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- b. The twelve consecutive month total hours of operation of combustion turbines T5 and T6 when fired with fuel oil, for each month in the quarterly reporting period,
 - c. Hours of operation of each combustion turbine (for all fuels) for each month during the quarter,
 - d. The twelve consecutive month total hours of operation of each combustion turbine (for all fuels) for each month in the quarterly reporting period,
- 8.12 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.
- 8.13 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 8.12, 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 8.12, 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 8.12.
 - b. Exceedances: (means for the purpose of this Condition and Condition 8.12, 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 12 ppmvd at 15% oxygen for each combustion turbine when fired with natural gas.
 - ii. Any three hour rolling average NO_x emission rate, which exceeds 42 ppmvd at 15% oxygen for combustion turbines T5 and T6, when fired with fuel oil.
 - iii. Any three hour rolling average CO emission rate, which exceeds 8 ppmvd at 15% oxygen for each combustion turbine when fired with natural gas.

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- iv. Any three hour rolling average CO emission rate, which exceeds 15 ppmvd at 15% oxygen for each combustion turbine when fired with fuel oil.
 - v. Any twelve consecutive month total hours of operation of the combustion turbines T5 or T6, when fired with fuel oil, exceeding 450 hours.
 - vi. Any twelve consecutive month total hours of operation of combustion turbines T1, T2, T3, or T4, exceeding 3750 hours.
 - vii. Any time diesel fuel combusted in combustion turbines T5 and T6 exceeds 0.05 percent sulfur, by weight.
 - viii. Any daily NOx emissions from T1, T2, T3, T4, T5, or T6, which exceeds 1,365 lb/day when firing natural gas.
 - ix. Any daily NOx emissions from T5 or T6, which exceeds 5,751 lb/day when firing fuel oil.
 - x. Any daily CO emissions from T1, T2, T3, T4, T5, or T6, which exceeds 438 lb/day when firing natural gas.
 - xi. Any daily CO emissions from T5 or T6, which exceeds 833 lb/day when firing fuel oil.
 - xii. Any May 1 through September 30 period total hours of operation of the combustion turbines T5 or T6, when fired with fuel oil, exceeding 100 hours.
 - xiii. Any twelve consecutive month total hours of operation of combustion turbines T5 or T6, exceeding 4200 hours, including oil fired operation.
- c. Excursions: (means for the purpose of this Condition and Condition 8.12, 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, which exceeds 0.032 grains per 100 standard cubic foot.

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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.

10.0 Special Condition

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.

10.2 Revocation of Existing Permits and Amendments

The following Air Quality Permits and Amendments are hereby revoked:

Air Quality Permit Number	Dates of Original Permit Issuance or Amendment
4911-263-0013-P-02-0	May 8, 2002
4911-263-0013-P-02-1	September 16, 2002