Jonathan Holtom

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

June 10, 1999

Jeffrey Pardue, C.E.P.
Florida Power Corporation
3201 34th St. S., P.O. Box 14042
St. Petersburg, FL 33711

Re: PROPOSED Title V Permit No. 1050223-002-AV
Tiger Bay Cogeneration Facility

Dear Mr. Pardue:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is *http://www2.dep.state.fl.us/air.*

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact either Jonathan Holtom, at 850/921-9531, or Ross Pollock, at 850/921-8968.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/jh/rp
Enclosures

copy furnished to:
Mr. Ken Kosky, P.E., Golder and Associates (E-mail Memorandum)
Mr. Bill Thomas, DEP – SWD (E-mail Memorandum)
Ms. Gracy Danois, USEPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Carla E. Pierce, USEPA, Region 4 (INTERNET E-mail Memorandum)

## PROPOSED PERMIT DETERMINATION

### I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to Florida Power Corporation for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County was clerked on October 27, 1998. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in the Lakeland Ledger on November 10, 1998. The DRAFT Title V Air Operation Permit was available for public inspection at the Department of Environmental Protection's Southwest District office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on November 20, 1998.

### II. Public Comment(s).

Comments were received and the DRAFT Title V Operation Permit was changed. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice. Comments were received from one respondent during the 30 (thirty) day public comment period. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received. The comment(s) will not be restated. Where duplicative comments exist, the original response is referenced.

**A.** Letter from Mr. Scott H. Osbourn, Florida Power Corporation dated January 21, 1999, and received on January 22, 1999.

**Comment # 1:** Page 2. The Title V application (Facility Regulatory Classification) indicated that the facility was not a major source of HAPs. To the best of our knowledge, the facility classification has not changed.

**Response:** The correction will be made.

**Comment # 2:** Page 3. Brief Description of Unregulated Units. FPC requests that the units described as unregulated (i.e., internal combustion engines, emergency generator, and fresh water cooling towers) be re-classified as insignificant.

**Response:** The Department acknowledges the comment. The requested change will be made with a fuel restriction of less than 16,000 gallons per year, collectively.

As a result of this comment, Appendix U-1, and all references to Appendix U-1, are deleted and the following entries are added to Appendix I-1:

9. Diesel Fuel fired emergency generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel
11. Diesel Fuel Fired Emergency Generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel.
33. Fresh Water Cooling Towers

**Comment # 3:** Page 7. Description. First Paragraph. The model number listed in line 2 for the combustion turbine should be MS7221 FA. The MS7001 FA is the general model classification made by General Electric. The HRSG was not manufactured by GE, as stated in line 4. Since the HRSG is not an

emissions unit, it is not necessary to include a vendor designation. Also, all references to a duct burner, fuels for a duct burner, and emissions from the HRSG because of a duct burner, should be deleted as the duct burner has been physically removed.

**Response:** The Department acknowledges the comment. The conditions for, and all references to, the duct burner will be removed.

**Comment # 4:** Page 7. Second Paragraph. The flow rate listed in the paragraph (4th line) is for distillate oil; the flow rate listed in the application is 1,072,001 acfm. It should be noted the flow and other parameters change as a result of load and turbine inlet temperature. These data were included in the original construction permit application. It is suggested that these data be so qualified. Also, for your information, the statement that the emissions from the CT are controlled with DLN 2.6 will be accurate when the permit becomes effective; FPC has ordered this equipment and will have it installed in 1999.

**Response:** The Department agrees with the comment, the permit can be amended to reflect that the flow rate does change due to the load and the turbine inlet temperature. The permit will be changed as follows:

**From:** {Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, the HRSG is regulated under 40 CFR 60, Subpart Dc, Standards of Performance for Industrial, Commercial and Institutional Steam Generating Units. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. Emissions from the CT are controlled by the use of dry low-$NO_X$ (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil. Emissions from the HRSG are uncontrolled.}

**To:** {Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. The actual volumetric flow rate may change as a result of the load and the turbine inlet temperature. Emissions from the CT are controlled by the use of dry low-$NO_X$ (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil.}

**Comment # 5:** Page 7. Condition A.3. This Condition should be deleted because it does not impose any existing requirement; it simply states that a "modification" to the unit will subject it to the NSPS requirements.

**Response:** The Department believes that this condition is an applicable requirement. No change will be made.

**Comment # 6:** Page 8. Condition A.4. This Condition should clarify that the heat input is dependent upon the ambient temperature in accordance with manufacturer's curves. Also, as stated above, the reference to the duct burner should be deleted.

**Response:** The Department acknowledges the comment. A permit note can be added to the condition to clarify that the heat input is dependent upon the ambient temperature in accordance with manufacturer's curves.

As a result of this comment **Condition # A.4.** is hereby changed:

**From:** Permitted Capacity.

Combustion Turbine. The maximum heat input to the Combustion Turbine (CT) shall not exceed:

a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.

b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.

Duct Burner. The maximum heat input to the duct burner (DB) shall not exceed 100 MMBtu/hr (HHV) of natural gas.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

**To:** Permitted Capacity.

Combustion Turbine. The maximum heat input to the Combustion Turbine (CT) shall not exceed:

a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.

b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

{Permitting note: The heat input is dependent upon the ambient temperature in accordance with the manufacturer's curves.}

**Comment # 7:** Page 8. Condition A.6.a. The description of the distillate fuel should be changed from "New" to "distillate fuel oil." This would be consistent with the terminology in the PSD/BACT permit that did not characterize the distillate oil as either "new", "No. 2" or "low sulfur." The latter comment applies to Condition A.6.b. Also, the third and fourth sentences of Condition A.6.a should be deleted: as stated above, the HRSG does not contain a duct burner, and the pre-construction requirements are redundant with Appendix TV-1.

**Response:** The Department acknowledges the comment. Since the permittee can not burn used oil and in order to be consistent with previous permits, the description will be changed to "distillate fuel oil". However, the pre-construction requirements are applicable requirements and will not be changed.

**Comment # 8:** All citations to the BACT as authority for a permit condition should be deleted because the BACT is simply the basis for the PSD permit. The PSD permit is appropriately listed, and is sufficient authority.

**Response:** The Department acknowledges the comment. The BACT Determination for this permit did appear in permit PSD-190, therefore citations using BACT can be deleted and the PSD permit alone will be cited. The permitting note in the Emission Limitations and Standards section will be changed

**From:** {Permitting Note: The following emission rates are based on 27°F at base load. For $NO_X$ and $SO_2$, meeting the BACT limits assures compliance with the NSPS limits.}

**To:** {Permitting Note: The following emission rates as established by BACT in PSD-FL-190, are based on 27°F at base load. For $NO_X$ and $SO_2$, meeting the BACT limits assures compliance with the NSPS limits.}

**Comment # 9:** Pages 9-11. Conditions A.12, A.15, A.19, A.22, A.25, and A.28 should be deleted because the HRSG does not contain a duct burner.

**Response:** The Department acknowledges the comment. All references to the duct burner will be removed and the remaining conditions will be re-numbered.

**Comment # 10:** Page 10. Condition A.20. The phrase "at full load conditions" should be added to this condition as was done in Condition A.21. This terminology is consistent with the PSD permit conditions.

**Response:** The Department disagrees with the comment. This language would not be consistent with the PSD permit. (See Table PSD-FL-190)

**Comment # 11:** Pages 10 and 11. In the Title V application, FPC requested that the Conditions for sulfuric acid mist, listed in Conditions A.26., A.27., and A.28, be deleted from the Title V Permit. These conditions were added to the original PSD Permit for the Tiger Bay Cogeneration Facility, as was common practice for other similar facilities at the time of permitting. These conditions are currently obsolete and no longer included in PSD permits for combustion turbines firing natural gas and distillate oil.

**Response:** The Department disagrees with the comment. These are applicable regulations that were established by the PSD permit and can not be removed by the title V permit.

**Comment # 12:** Page 11. In the Title V application, FPC requested that the conditions for mercury, arsenic, beryllium and lead, listed in Conditions A.31 through A.34, be deleted from the Title V Permit. These conditions were added to the original PSD Permit for the Tiger Bay Cogeneration Facility, as was common practice for other similar facilities at the time of permitting. These conditions are currently obsolete and no longer included in PSD permits for combustion turbines firing natural gas and distillate oil. In addition, arsenic and beryllium have been deleted from the list of PSD Significant Emission Rates, by the Department. This request is consistent with Department guidance (DARM-PER/GEN-18).

**Response:** The Department disagrees with the comment. These are applicable regulations that were established by the PSD permit and can not be removed by the title V permit.

**Comment # 13:** Page 11. Condition A.35. In accordance with the attached start-up curve, FPC requests that this unit be specifically authorized to have excess emissions for 3 hours (rather than 2 hours) in any 24-hour period, unless specifically authorized by the Department for longer duration. Also, the pertinent excess emission provisions of 40 CFR Part 60 should be included in this section of the permit, i.e., §§ 60.8(c), 60.11(c), and 60.43c(d).

**Response:** Excess emissions during startup are limited by rule to two hours in any 24-hour period, unless specifically authorized by the Department for a longer duration. Under NSPS regulations, excess emissions due to startup are allowed, as long as best operational practices are followed and periods of excess emissions are kept to a minimum. The Department feels that the Proposed Title V permit is not the proper vehicle for relaxing the allowable excess emissions limitations. As an alternative, we are agreeable to providing space in the Title V permit for a written agreement between Tiger Bay and the Department's compliance office that outlines a startup protocol that minimizes excess emissions while following "best operational practices". Once this protocol is established and properly signed by both parties, it will be added to the Title V permit under the reserved heading of Appendix PSS-1, Protocol for Startup and Shutdown. Proper references will be added to the Proposed permit at the appropriate places. To help clarify the potential deviation from the allowable excess emissions conditions, condition A.35. is changed:

**From:**
**A.35.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

**To:**
**A.35.** Excess emissions resulting from startup, shutdown, or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. See Appendix PSS-1, Protocol for Start-up and Shutdown.

{Permitting Note: Once a written agreement between the Permittee and the Department's Southwest District office has been acquired approving a "Protocol for Start-up and Shutdown", the protocol is automatically incorporated by reference and is a part of the permit. The protocol shall be used where applicable and where there is/are conflict(s) with the rule.}

Also, the requested excess emissions provisions of 40 CFR 60 are not appropriate since the allowable emissions in this permit were established by BACT, rather than by NSPS. Appropriate excess emissions provisions are already included in the Title V permit. For consistency with other Title V permits, the following permitting note will be added at the beginning of the excess emissions section:

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

**Comment # 14:** Page 12. Condition A.39. This Condition is identical with Condition A.37. and therefore should be deleted.

**Response:** The Department agrees with this comment. The conditions are identical, therefore, condition A.37. will be deleted.

**Comment # 15:** Page 12. Condition A.41. This condition should be replaced with the Custom Fuel Monitoring Schedule issued by the Department and dated December 2, 1994 (attached).

**Response:** The Department acknowledges the comment. The permittee's approved Custom Fuel Monitoring Schedule will be added to the permit. (See new Condition A.35.)

**Comment # 16:** Page 13. Condition A.43. The reference to 40 CFR Part 75 on line 5 should be put into context with Part 60 and the word "or" should be added. The following is suggested: "(July 2, 1992) or 40 CFR Part 75, whichever is more stringent." Also, the last sentence of this Condition should be deleted because it does not appear in the PSD permit.

**Response:** It appears that a typing error was made in Condition A.43. The suggested change will be made. The last sentence is an applicable regulation and will remain in the permit.

**Comment # 17:** Page 14. Condition A.46. The references to annual testing for VOCs and $H_2SO_4$ should be deleted. A sentence should be added to this Condition stating that "VOC testing is only required if the CO test indicates an exceedance of the CO standard. See Condition A.55." In accordance with Comment No. 11, there should be no need for annual $H_2SO_4$ testing. Also, as stated above, the Permitting Note should be revised to reflect the deletion of the limits for mercury, arsenic, beryllium, and lead.

**Response:** The Department acknowledges the comment. Specific Condition A.55. states that VOC testing is required only if the CO test indicates an exceedance of the CO standard. In order to change the requirements for testing for $H_2SO_4$, mercury, arsenic, beryllium and lead the PSD permit would have to be modified. Condition A.46. will be changed, based on this comment

As a result of this comment **Condition # A.46.** is hereby changed:

**From:** A.46. Annual Tests Required. For this emissions unit, annual testing must be conducted for $NO_X$, $SO_2$, CO, VOC, $H_2SO_4$ and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards.
[1050223-006-AC; AC53-214903; PSD-FL-190; and, BACT.]

**To:** A.40. Annual Tests Required. For this emissions unit, annual testing must be conducted for $NO_X$, $SO_2$, CO, $H_2SO_4$ and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards. VOC testing is only required if the CO test indicates an exceedance of the standard.
[1050223-006-AC; AC53-214903; PSD-FL-190]

**Comment # 18:** Page 14. Condition A.47. Section 60.335(a) applies only to fuel oil, since the nitrogen in gas is not fuel bound as provided in Section 60.332(a)(3).

**Response:** The Department does not agree with this comment. This condition is an applicable regulation. No change will be made.

**Comment # 19:** Page 14. Condition A.48. This condition was deleted from the PSD permit by the Department letter dated April 23, 1996, which changed several permit conditions.

**Response:** The Department acknowledges this comment. This condition was deleted from the PSD permit by the letter dated April 23, 1996. However, it is still an applicable regulation for the Title V permit. Compliance with this condition must be met if the annual test is not performed at 95% - 100% of rated capacity. For clarity condition A.48. will be moved to follow current condition A.62. and will be qualified as follows:

As a result of this comment **Condition # A.48.** is hereby changed:

**From:** Nitrogen Oxides. The test methods for nitrogen oxides emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO})\ (Pr/Po)^{0.5}\ e^{19(Ho-0.00633)}\ (288°K/Ta)^{1.53}$$

where:

$NO_X$ = emission rate of $NO_X$ at 15 percent $O_2$ and ISO standard ambient conditions, volume percent.

$NO_{XO}$ = observed $NO_X$ concentration, ppm by volume.

$P_r$ = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

$P_O$ = observed combustor inlet absolute pressure at test, mm Hg.

$H_O$ = observed humidity of ambient air, g $H_2O$/g air.

e = transcendental constant, 2.718.

$T_a$ = ambient temperature, °K.

[40 CFR 60.335(c)(1); AC53-214903; PSD-FL-190; and, BACT.]

**To:** Nitrogen Oxides. The test methods for nitrogen oxides emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO})\ (Pr/Po)^{0.5}\ e^{19(Ho-0.00633)}\ (288°K/Ta)^{1.53}$$

where:

$NO_X$ = emission rate of $NO_X$ at 15 percent $O_2$ and ISO standard ambient conditions, volume percent.

$NO_{XO}$ = observed $NO_X$ concentration, ppm by volume.

$P_r$ = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

$P_O$ = observed combustor inlet absolute pressure at test, mm Hg.

$H_O$ = observed humidity of ambient air, g $H_2O$/g air.

e = transcendental constant, 2.718.
$T_a$ = ambient temperature, °K.
[40 CFR 60.335(c)(1); AC53-214903; PSD-FL-190]

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**Comment # 20:** Conditions A.44, A.45, A.49, A.50, A.51, A.52, A.57, A.58, A.59, and A.67 through A. 72 should be deleted. Other Title V permits for similar facilities do not have these conditions and they are either misapplied to this unit or simply cause confusion. For example, Condition A.44 is not appropriate because the only CEM on this unit is for $NO_X$ and Method 20 (a stack test method) is the compliance determination method pursuant to Condition A.48. Also, the permit should not reference 40 CFR 60.335(c)(2) in Condition A.49 as clarified by DEP guidance (DARM-EM-05).

**Response:** The Department disagrees with most of this comment. These conditions are applicable regulations, with the exception of condition A.49. If compliance is not demonstrated at 95% - 100% of rated capacity, new curves must be established pursuant to this condition. It will also be moved and qualified as described in response 19.

As a result of this comment **Condition # A.49.** is hereby changed:

**From:** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted $NO_X$ standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.
[40 CFR 60.335(c)(2)]

**To:** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted $NO_X$ standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**Comment # 21:** Page 15. Condition A.53. The references to the other permit conditions should be revised as follows: "A.13, A.14, and A.16; and A.26 - A.27."

**Comment # 22:** Page 15. Condition A.54. The reference to the other permit conditions should be revised as follows: "A.20 and A.21."

**Comment # 23:** Page 16. Condition A.55. The reference to the other permit conditions should be revised as follows: "A.23 and A.24 . . . A.20 and A.21."

**Response:** The Department acknowledges the comments. Since the duct burner references are being removed, specific condition cross-references will be changed.

**Comment # 24:** Page 16. Condition A.59. The reference to PSD-FL-014 appears incorrect.

**Response:** The Department agrees. PSD permit PSD-FL-190 should have been cited. This condition is also a quote from 40 CFR 60.

**Comment # 25:** Page 17. Condition A.62. This Condition should reference the manufacturer's curve for heat input vs. inlet temperature.

**Response:** The Department agrees. Condition A.62. will be changed as follows:

**From:** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 95 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 105 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(a), F.A.C.]

**To:** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 95 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 105 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results.
[Rules 62-297.310(2) & (2)(a), F.A.C., PSD-FL-190]

**Comment # 26:** Page 18. Condition A.65. Paragraph (a)4. is redundant to Condition A.46., and therefore should be deleted.

**Response:** The Department disagrees. These conditions are quotes of rules. These conditions are in the permit for permit consistency. No change will be made.

**Comment # 27:** Page 19. Condition A.66. There does not appear to be any basis for this Condition and therefore FPC requests that it be deleted.

**Response:** The Department disagrees. Conditions like this are required by Rule 62-213.440, F.A.C. No change will be made.

**Comment # 28:** Page 23. Condition A.76. This Condition is obsolete and duplicative and therefore should be deleted. Compliance with 40 CFR Part 75 should be sufficient.

**Response:** The Department agrees with the comment. Conditions A.75. and A.76. will be deleted from the permit.

**Comment # 29:** Page 24. Description. Second Paragraph. FPC requests the following revision of the first sentence for clarification: "This unit is ~~regulated under~~ exempt from Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter ~~Exemptions~~ pursuant to Rule 62-296.700(2), F.A.C." Also, as listed in the application, the stack flow should be 5,000 acfm and not 5,050 acfm.

**Response:** The Department agrees that this source is exempt from Particulate Matter RACT based on limitations in AC53-230744. RACT references will be removed, including the permitting note following condition B.5.

**Comment # 30:** Page 25. Condition B.4. The second sentence of this condition should be deleted, since the air construction permit did not include such wording.

**Response:** The Department acknowledges the comment. However, without a log, any claims of less than continuous operation on the AOR would be difficult to substantiate. The Department wishes to leave this requirement in the permit.

**Comment # 31:** Page 25. Condition B.5. For clarification, FPC requests that this Condition specify the compliance method to be used, assuming the provisions of Condition B.6 are met.

**Response:** The Department acknowledges the comment. Method 5 will be specified as the compliance method, in a new condition under test methods and procedures. Based on this comment the following condition is added:

**B.10.** Particulate Matter. EPA Method 5 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the particulate matter standard in specific condition **B.5.** [Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-230744.]

**Comment # 32:** Page 25. Condition B.6. This Condition states that compliance determinations, if required, shall be "demonstrated by the test method specified in the applicable rule." FPC is uncertain what the "applicable rule" is, and therefore requests that a specific citation be included.

**Response:** The Department acknowledges the comment. A cross-reference to the new condition stated in comment 31 will be added.

**Comment # 33:** Page 29. Condition B.15. FPC requests that paragraphs (a)4.b. and c. be deleted and replaced with a simple reference to particulate matter, because this unit is only subject to limits on visible emissions and particulate matter.

**Response:** The Department chooses to leave these paragraphs since this condition is a quote of the rule and was included in the permit for permit consistency. It is possible that the referenced paragraphs could be applicable in the future.

**Comment # 34:** Page 33. Condition A.4. Consistent with other DEP Title V permits, FPC requests that this Condition be moved to the facility-wide section of the permit.

**Response:** The Department disagrees. This is an acid rain condition and appropriately belongs here. No change will be made.

Note: The Department agrees that some Title V permits may have this condition in the facility-wide section of the permit. In retrospect, we feel that it is more appropriate to be with the rest of the acid rain requirements and will likely be moved to the acid rain sections of those permits at the next opportunity.

**Comment # 35:** Page 35. Item 17. The chemical tank listed is 550 lb., not 5,500 lb. indicated in the condition. There are several similar tanks associated with the Cooling Tower Area that were not listed. The tanks were pH guard (500 gal., 2,925 lb.) and Conquor 3583 (2 @ 500 lb.). Several chlorine tanks were also identified in this area, as well as gas cylinders ($CO_2$ and $H_2$).

**Response:** The Department acknowledges the comment. This appears to have been a typing error and will be changed. The other tanks listed in your comment will also be added, except for the chlorine tanks which have been removed.

**Comment # 36:** Page 35. Items 19 and 20. The natural gas knockout tank was not listed with these items. This insignificant emission unit had a vent.

**Response:** The Department acknowledges the comment and will add this unit to the list of insignificant emissions units.

**B. Document(s) on file with the permitting authority:**
-Letter received January 22, 1999, from Mr. Scott H. Osbourn, Florida Power Corporation.
-Letter received April 21, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-Fax received April 22, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-E-mail received June 4, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-E-mail received June 7, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.

## III. Conclusion.

The permitting authority hereby issues the PROPOSED Permit No. 1050023-002-AV, with the changes noted above.]

Because of the number of changes to the DRAFT, a copy of the PROPOSED permit has been printed for the applicant.

June 10, 1999

Jeffrey Pardue, C.E.P.
Florida Power Corporation
3201 34th St. S., P.O. Box 14042
St. Petersburg, FL 33711

Re: PROPOSED Title V Permit No. 1050223-002-AV
Tiger Bay Cogeneration Facility

Dear Mr. Pardue:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is *http://www2.dep.state.fl.us/air*.

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact either Jonathan Holtom, at 850/921-9531, or Ross Pollock, at 850/921-8968.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/jh/rp
Enclosures

copy furnished to:
Mr. Ken Kosky, P.E., Golder and Associates (E-mail Memorandum)
Mr. Bill Thomas, DEP – SWD (E-mail Memorandum)
Ms. Gracy Danois, USEPA, Region 4 (INTERNET E-mail Memorandum)

Ms. Carla E. Pierce, USEPA, Region 4 (INTERNET E-mail Memorandum)

## PROPOSED PERMIT DETERMINATION

### I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to Florida Power Corporation for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 East, Ft. Meade, Polk County was clerked on October 27, 1998. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in the Lakeland Ledger on November 10, 1998. The DRAFT Title V Air Operation Permit was available for public inspection at the Department of Environmental Protection's Southwest District office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on November 20, 1998.

### II. Public Comment(s).

Comments were received and the DRAFT Title V Operation Permit was changed. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice. Comments were received from one respondent during the 30 (thirty) day public comment period. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received. The comment(s) will not be restated. Where duplicative comments exist, the original response is referenced.

**A.** Letter from Mr. Scott H. Osbourn, Florida Power Corporation dated January 21, 1999, and received on January 22, 1999.

**Comment # 1:** Page 2. The Title V application (Facility Regulatory Classification) indicated that the facility was not a major source of HAPs. To the best of our knowledge, the facility classification has not changed.

**Response:** The correction will be made.

**Comment # 2:** Page 3. Brief Description of Unregulated Units. FPC requests that the units described as unregulated (i.e., internal combustion engines, emergency generator, and fresh water cooling towers) be re-classified as insignificant.

**Response:** The Department acknowledges the comment. The requested change will be made with a fuel restriction of less than 16,000 gallons per year, collectively.

As a result of this comment, Appendix U-1, and all references to Appendix U-1, are deleted and the following entries are added to Appendix I-1:

9. Diesel Fuel fired emergency generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel
11. Diesel Fuel Fired Emergency Generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel.
33. Fresh Water Cooling Towers

**Comment # 3:** Page 7. Description. First Paragraph. The model number listed in line 2 for the combustion turbine should be MS7221 FA. The MS7001 FA is the general model classification made by General Electric. The HRSG was not manufactured by GE, as stated in line 4. Since the HRSG is not an emissions unit, it is not necessary to include a vendor designation. Also, all references to a duct burner,

fuels for a duct burner, and emissions from the HRSG because of a duct burner, should be deleted as the duct burner has been physically removed.

**Response:** The Department acknowledges the comment. The conditions for, and all references to, the duct burner will be removed.

**Comment # 4:** Page 7. Second Paragraph. The flow rate listed in the paragraph (4th line) is for distillate oil; the flow rate listed in the application is 1,072,001 acfm. It should be noted the flow and other parameters change as a result of load and turbine inlet temperature. These data were included in the original construction permit application. It is suggested that these data be so qualified. Also, for your information, the statement that the emissions from the CT are controlled with DLN 2.6 will be accurate when the permit becomes effective; FPC has ordered this equipment and will have it installed in 1999.

**Response:** The Department agrees with the comment, the permit can be amended to reflect that the flow rate does change due to the load and the turbine inlet temperature. The permit will be changed as follows:

**From:** {Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, the HRSG is regulated under 40 CFR 60, Subpart Dc, Standards of Performance for Industrial, Commercial and Institutional Steam Generating Units. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. Emissions from the CT are controlled by the use of dry low-$NO_X$ (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil. Emissions from the HRSG are uncontrolled.}

**To:** {Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. The actual volumetric flow rate may change as a result of the load and the turbine inlet temperature. Emissions from the CT are controlled by the use of dry low-$NO_X$ (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil.}

**Comment # 5:** Page 7. Condition A.3. This Condition should be deleted because it does not impose any existing requirement; it simply states that a "modification" to the unit will subject it to the NSPS requirements.

**Response:** The Department believes that this condition is an applicable requirement. No change will be made.

**Comment # 6:** Page 8. Condition A.4. This Condition should clarify that the heat input is dependent upon the ambient temperature in accordance with manufacturer's curves. Also, as stated above, the reference to the duct burner should be deleted.

**Response:** The Department acknowledges the comment. A permit note can be added to the condition to clarify that the heat input is dependent upon the ambient temperature in accordance with manufacturer's curves.

As a result of this comment **Condition # A.4.** is hereby changed:

**From:** Permitted Capacity.

Combustion Turbine. The maximum heat input to the Combustion Turbine (CT) shall not exceed:

a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.
b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.

Duct Burner. The maximum heat input to the duct burner (DB) shall not exceed 100 MMBtu/hr (HHV) of natural gas.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

**To:** Permitted Capacity.
Combustion Turbine. The maximum heat input to the Combustion Turbine (CT) shall not exceed:

a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.
b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

{Permitting note: The heat input is dependent upon the ambient temperature in accordance with the manufacturer's curves.}

**Comment # 7:** Page 8. Condition A.6.a. The description of the distillate fuel should be changed from "New" to "distillate fuel oil." This would be consistent with the terminology in the PSD/BACT permit that did not characterize the distillate oil as either "new", "No. 2" or "low sulfur." The latter comment applies to Condition A.6.b. Also, the third and fourth sentences of Condition A.6.a should be deleted: as stated above, the HRSG does not contain a duct burner, and the pre-construction requirements are redundant with Appendix TV-1.

**Response:** The Department acknowledges the comment. Since the permittee can not burn used oil and in order to be consistent with previous permits, the description will be changed to "distillate fuel oil". However, the pre-construction requirements are applicable requirements and will not be changed.

**Comment # 8:** All citations to the BACT as authority for a permit condition should be deleted because the BACT is simply the basis for the PSD permit. The PSD permit is appropriately listed, and is sufficient authority.

**Response:** The Department acknowledges the comment. The BACT Determination for this permit did appear in permit PSD-190, therefore citations using BACT can be deleted and the PSD permit alone will be cited. The permitting note in the Emission Limitations and Standards section will be changed

**From:** {Permitting Note: The following emission rates are based on 27°F at base load. For $NO_X$ and $SO_2$, meeting the BACT limits assures compliance with the NSPS limits.}

**To:** {Permitting Note: The following emission rates as established by BACT in PSD-FL-190, are based on 27°F at base load. For $NO_X$ and $SO_2$, meeting the BACT limits assures compliance with the NSPS limits.}

**Comment # 9:** Pages 9-11. Conditions A.12, A.15, A.19, A.22, A.25, and A.28 should be deleted because the HRSG does not contain a duct burner.

**Response:** The Department acknowledges the comment. All references to the duct burner will be removed and the remaining conditions will be re-numbered.

**Comment # 10:** Page 10. Condition A.20. The phrase "at full load conditions" should be added to this condition as was done in Condition A.21. This terminology is consistent with the PSD permit conditions.

**Response:** The Department disagrees with the comment. This language would not be consistent with the PSD permit. (See Table PSD-FL-190)

**Comment # 11:** Pages 10 and 11. In the Title V application, FPC requested that the Conditions for sulfuric acid mist, listed in Conditions A.26., A.27., and A.28, be deleted from the Title V Permit. These conditions were added to the original PSD Permit for the Tiger Bay Cogeneration Facility, as was common practice for other similar facilities at the time of permitting. These conditions are currently obsolete and no longer included in PSD permits for combustion turbines firing natural gas and distillate oil.

**Response:** The Department disagrees with the comment. These are applicable regulations that were established by the PSD permit and can not be removed by the title V permit.

**Comment # 12:** Page 11. In the Title V application, FPC requested that the conditions for mercury, arsenic, beryllium and lead, listed in Conditions A.31 through A.34, be deleted from the Title V Permit. These conditions were added to the original PSD Permit for the Tiger Bay Cogeneration Facility, as was common practice for other similar facilities at the time of permitting. These conditions are currently obsolete and no longer included in PSD permits for combustion turbines firing natural gas and distillate oil. In addition, arsenic and beryllium have been deleted from the list of PSD Significant Emission Rates, by the Department. This request is consistent with Department guidance (DARM-PER/GEN-18).

**Response:** The Department disagrees with the comment. These are applicable regulations that were established by the PSD permit and can not be removed by the title V permit.

**Comment # 13:** Page 11. Condition A.35. In accordance with the attached start-up curve, FPC requests that this unit be specifically authorized to have excess emissions for 3 hours (rather than 2 hours) in any

24-hour period, unless specifically authorized by the Department for longer duration. Also, the pertinent excess emission provisions of 40 CFR Part 60 should be included in this section of the permit, i.e., §§ 60.8(c), 60.11(c), and 60.43c(d).

**Response:** Excess emissions during startup are limited by rule to two hours in any 24-hour period, unless specifically authorized by the Department for a longer duration. Under NSPS regulations, excess emissions due to startup are allowed, as long as best operational practices are followed and periods of excess emissions are kept to a minimum. The Department feels that the Proposed Title V permit is not the proper vehicle for relaxing the allowable excess emissions limitations. As an alternative, we are agreeable to providing space in the Title V permit for a written agreement between Tiger Bay and the Department's compliance office that outlines a startup protocol that minimizes excess emissions while following "best operational practices". Once this protocol is established and properly signed by both parties, it will be added to the Title V permit under the reserved heading of Appendix PSS-1, Protocol for Startup and Shutdown. Proper references will be added to the Proposed permit at the appropriate places. To help clarify the potential deviation from the allowable excess emissions conditions, condition A.35. is changed:

**From:**
**A.35.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

**To:**
**A.35.** Excess emissions resulting from startup, shutdown, or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. See Appendix PSS-1, Protocol for Start-up and Shutdown.

{Permitting Note: Once a written agreement between the Permittee and the Department's Southwest District office has been acquired approving a "Protocol for Start-up and Shutdown", the protocol is automatically incorporated by reference and is a part of the permit. The protocol shall be used where applicable and where there is/are conflict(s) with the rule.}

Also, the requested excess emissions provisions of 40 CFR 60 are not appropriate since the allowable emissions in this permit were established by BACT, rather than by NSPS. Appropriate excess emissions provisions are already included in the Title V permit. For consistency with other Title V permits, the following permitting note will be added at the beginning of the excess emissions section:

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

**Comment # 14:** Page 12. Condition A.39. This Condition is identical with Condition A.37. and therefore should be deleted.

**Response:** The Department agrees with this comment. The conditions are identical, therefore, condition A.37. will be deleted.

**Comment # 15:** Page 12. Condition A.41. This condition should be replaced with the Custom Fuel Monitoring Schedule issued by the Department and dated December 2, 1994 (attached).

**Response:** The Department acknowledges the comment. The permittee's approved Custom Fuel Monitoring Schedule will be added to the permit. (See new Condition A.35.)

**Comment # 16:** Page 13. Condition A.43. The reference to 40 CFR Part 75 on line 5 should be put into context with Part 60 and the word "or" should be added. The following is suggested: "(July 2, 1992) or 40 CFR Part 75, whichever is more stringent." Also, the last sentence of this Condition should be deleted because it does not appear in the PSD permit.

**Response:** It appears that a typing error was made in Condition A.43. The suggested change will be made. The last sentence is an applicable regulation and will remain in the permit.

**Comment # 17:** Page 14. Condition A.46. The references to annual testing for VOCs and $H_2SO_4$ should be deleted. A sentence should be added to this Condition stating that "VOC testing is only required if the CO test indicates an exceedance of the CO standard. See Condition A.55." In accordance with Comment No. 11, there should be no need for annual $H_2SO_4$ testing. Also, as stated above, the Permitting Note should be revised to reflect the deletion of the limits for mercury, arsenic, beryllium, and lead.

**Response:** The Department acknowledges the comment. Specific Condition A.55. states that VOC testing is required only if the CO test indicates an exceedance of the CO standard. In order to change the requirements for testing for $H_2SO_4$, mercury, arsenic, beryllium and lead the PSD permit would have to be modified. Condition A.46. will be changed, based on this comment

As a result of this comment **Condition # A.46.** is hereby changed:

**From:** A.46. Annual Tests Required. For this emissions unit, annual testing must be conducted for $NO_X$, $SO_2$, CO, VOC, $H_2SO_4$ and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards.
[1050223-006-AC; AC53-214903; PSD-FL-190; and, BACT.]

**To:** A.40. Annual Tests Required. For this emissions unit, annual testing must be conducted for $NO_X$, $SO_2$, CO, $H_2SO_4$ and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards. VOC testing is only required if the CO test indicates an exceedance of the standard.
[1050223-006-AC; AC53-214903; PSD-FL-190]

**Comment # 18:** Page 14. Condition A.47. Section 60.335(a) applies only to fuel oil, since the nitrogen in gas is not fuel bound as provided in Section 60.332(a)(3).

**Response:** The Department does not agree with this comment. This condition is an applicable regulation. No change will be made.

**Comment # 19:** Page 14. Condition A.48. This condition was deleted from the PSD permit by the Department letter dated April 23, 1996, which changed several permit conditions.

**Response:** The Department acknowledges this comment. This condition was deleted from the PSD permit by the letter dated April 23, 1996. However, it is still an applicable regulation for the Title V permit.

Compliance with this condition must be met if the annual test is not performed at 95% - 100% of rated capacity. For clarity condition A.48: will be moved to follow current condition A.62. and will be qualified as follows:

As a result of this comment **Condition # A.48.** is hereby changed:

**From:** Nitrogen Oxides. The test methods for nitrogen oxides emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO})\ (Pr/Po)^{0.5}\ e^{19(Ho-0.00633)}\ (288°K/Ta)^{1.53}$$

where:

$NO_X$ = emission rate of $NO_X$ at 15 percent $O_2$ and ISO standard ambient conditions, volume percent.

$NO_{XO}$ = observed $NO_X$ concentration, ppm by volume.

$P_r$ = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

$P_O$ = observed combustor inlet absolute pressure at test, mm Hg.

$H_O$ = observed humidity of ambient air, g $H_2O$/g air.

e = transcendental constant, 2.718.

$T_a$ = ambient temperature, °K.

[40 CFR 60.335(c)(1); AC53-214903; PSD-FL-190; and, BACT.]

**To:** Nitrogen Oxides. The test methods for nitrogen oxides emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO})\ (Pr/Po)^{0.5}\ e^{19(Ho-0.00633)}\ (288°K/Ta)^{1.53}$$

where:

$NO_X$ = emission rate of $NO_X$ at 15 percent $O_2$ and ISO standard ambient conditions, volume percent.

$NO_{XO}$ = observed $NO_X$ concentration, ppm by volume.

$P_r$ = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

$P_O$ = observed combustor inlet absolute pressure at test, mm Hg.

$H_O$ = observed humidity of ambient air, g $H_2O$/g air.

e = transcendental constant, 2.718.
$T_a$ = ambient temperature, °K.
[40 CFR 60.335(c)(1); AC53-214903; PSD-FL-190]

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**Comment # 20:** Conditions A.44, A.45, A.49, A.50, A.51, A.52, A.57, A.58, A.59, and A.67 through A. 72 should be deleted. Other Title V permits for similar facilities do not have these conditions and they are either misapplied to this unit or simply cause confusion. For example, Condition A.44 is not appropriate because the only CEM on this unit is for $NO_X$ and Method 20 (a stack test method) is the compliance determination method pursuant to Condition A.48. Also, the permit should not reference 40 CFR 60.335(c)(2) in Condition A.49 as clarified by DEP guidance (DARM-EM-05).

**Response:** The Department disagrees with most of this comment. These conditions are applicable regulations, with the exception of condition A.49. If compliance is not demonstrated at 95% - 100% of rated capacity, new curves must be established pursuant to this condition. It will also be moved and qualified as described in response 19.

As a result of this comment **Condition # A.49.** is hereby changed:

**From:** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted $NO_X$ standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.
[40 CFR 60.335(c)(2)]

**To:** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted $NO_X$ standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**Comment # 21:** Page 15. Condition A.53. The references to the other permit conditions should be revised as follows: "A.13, A.14, and A.16; and A.26 - A.27."

**Comment # 22:** Page 15. Condition A.54. The reference to the other permit conditions should be revised as follows: "A.20 and A.21."

**Comment # 23:** Page 16. Condition A.55. The reference to the other permit conditions should be revised as follows: "A.23 and A.24 . . . A.20 and A.21."

**Response:** The Department acknowledges the comments. Since the duct burner references are being removed, specific condition cross-references will be changed.

**Comment # 24:** Page 16. Condition A.59. The reference to PSD-FL-014 appears incorrect.

**Response:** The Department agrees. PSD permit PSD-FL-190 should have been cited. This condition is also a quote from 40 CFR 60.

**Comment # 25:** Page 17. Condition A.62. This Condition should reference the manufacturer's curve for heat input vs. inlet temperature.

**Response:** The Department agrees. Condition A.62. will be changed as follows:

**From:** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 95 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 105 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(a), F.A.C.]

**To:** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 95 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 105 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results.
[Rules 62-297.310(2) & (2)(a), F.A.C., PSD-FL-190]

**Comment # 26:** Page 18. Condition A.65. Paragraph (a)4. is redundant to Condition A.46., and therefore should be deleted.

**Response:** The Department disagrees. These conditions are quotes of rules. These conditions are in the permit for permit consistency. No change will be made.

**Comment # 27:** Page 19. Condition A.66. There does not appear to be any basis for this Condition and therefore FPC requests that it be deleted.

**Response:** The Department disagrees. Conditions like this are required by Rule 62-213.440, F.A.C. No change will be made.

**Comment # 28:** Page 23. Condition A.76. This Condition is obsolete and duplicative and therefore should be deleted. Compliance with 40 CFR Part 75 should be sufficient.

**Response:** The Department agrees with the comment. Conditions A.75. and A.76. will be deleted from the permit.

**Comment # 29:** Page 24. Description. Second Paragraph. FPC requests the following revision of the first sentence for clarification: "This unit is ~~regulated under~~ exempt from Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter ~~Exemptions~~ pursuant to Rule 62-296.700(2), F.A.C." Also, as listed in the application, the stack flow should be 5,000 acfm and not 5,050 acfm.

**Response:** The Department agrees that this source is exempt from Particulate Matter RACT based on limitations in AC53-230744. RACT references will be removed, including the permitting note following condition B.5.

**Comment # 30:** Page 25. Condition B.4. The second sentence of this condition should be deleted, since the air construction permit did not include such wording.

**Response:** The Department acknowledges the comment. However, without a log, any claims of less than continuous operation on the AOR would be difficult to substantiate. The Department wishes to leave this requirement in the permit.

**Comment # 31:** Page 25. Condition B.5. For clarification, FPC requests that this Condition specify the compliance method to be used, assuming the provisions of Condition B.6 are met.

**Response:** The Department acknowledges the comment. Method 5 will be specified as the compliance method, in a new condition under test methods and procedures. Based on this comment the following condition is added:

**B.10.** Particulate Matter. EPA Method 5 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the particulate matter standard in specific condition **B.5.** [Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-230744.]

**Comment # 32:** Page 25. Condition B.6. This Condition states that compliance determinations, if required, shall be "demonstrated by the test method specified in the applicable rule." FPC is uncertain what the "applicable rule" is, and therefore requests that a specific citation be included.

**Response:** The Department acknowledges the comment. A cross-reference to the new condition stated in comment 31 will be added.

**Comment # 33:** Page 29. Condition B.15. FPC requests that paragraphs (a)4.b. and c. be deleted and replaced with a simple reference to particulate matter, because this unit is only subject to limits on visible emissions and particulate matter.

**Response:** The Department chooses to leave these paragraphs since this condition is a quote of the rule and was included in the permit for permit consistency. It is possible that the referenced paragraphs could be applicable in the future.

**Comment # 34:** Page 33. Condition A.4. Consistent with other DEP Title V permits, FPC requests that this Condition be moved to the facility-wide section of the permit.

**Response:** The Department disagrees. This is an acid rain condition and appropriately belongs here. No change will be made.

Note: The Department agrees that some Title V permits may have this condition in the facility-wide section of the permit. In retrospect, we feel that it is more appropriate to be with the rest of the acid rain requirements and will likely be moved to the acid rain sections of those permits at the next opportunity.

**Comment # 35:** Page 35. Item 17. The chemical tank listed is 550 lb., not 5,500 lb. indicated in the condition. There are several similar tanks associated with the Cooling Tower Area that were not listed. The tanks were pH guard (500 gal., 2,925 lb.) and Conquor 3583 (2 @ 500 lb.). Several chlorine tanks were also identified in this area, as well as gas cylinders ($CO_2$ and $H_2$).

**Response:** The Department acknowledges the comment. This appears to have been a typing error and will be changed. The other tanks listed in your comment will also be added, except for the chlorine tanks which have been removed.

**Comment # 36:** Page 35. Items 19 and 20. The natural gas knockout tank was not listed with these items. This insignificant emission unit had a vent.

**Response:** The Department acknowledges the comment and will add this unit to the list of insignificant emissions units.

**B. Document(s) on file with the permitting authority:**
-Letter received January 22, 1999, from Mr. Scott H. Osbourn, Florida Power Corporation.
-Letter received April 21, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-Fax received April 22, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-E-mail received June 4, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-E-mail received June 7, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.

## III. Conclusion.

The permitting authority hereby issues the PROPOSED Permit No. 1050023-002-AV, with the changes noted above.]

Because of the number of changes to the DRAFT, a copy of the PROPOSED permit has been printed for the applicant.

Note: The Department agrees that some Title V permits may have this condition in the facility-wide section of the permit. In retrospect, we feel that it is more appropriate to be with the rest of the acid rain requirements and will likely be moved to the acid rain sections of those permits at the next opportunity.

**Comment # 35:** Page 35. Item 17. The chemical tank listed is 550 lb., not 5,500 lb. indicated in the condition. There are several similar tanks associated with the Cooling Tower Area that were not listed. The tanks were pH guard (500 gal., 2,925 lb.) and Conquor 3583 (2 @ 500 lb.). Several chlorine tanks were also identified in this area, as well as gas cylinders ($CO_2$ and $H_2$).

**Response:** The Department acknowledges the comment. This appears to have been a typing error and will be changed. The other tanks listed in your comment will also be added, except for the chlorine tanks which have been removed.

**Comment # 36:** Page 35. Items 19 and 20. The natural gas knockout tank was not listed with these items. This insignificant emission unit had a vent.

**Response:** The Department acknowledges the comment and will add this unit to the list of insignificant emissions units.

**B. Document(s) on file with the permitting authority:**
-Letter received January 22, 1999, from Mr. Scott H. Osbourn, Florida Power Corporation.
-Letter received April 21, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-Fax received April 22, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-E-mail received June 4, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.
-E-mail received June 7, 199, from Mr. J. Michael Kennedy, Florida Power Corporation.

## III. Conclusion.

The permitting authority hereby issues the PROPOSED Permit No. 1050023-002-AV, with the changes noted above.]

Because of the number of changes to the DRAFT, a copy of the PROPOSED permit has been printed for the applicant.

# Florida Power Corporation
# Tiger Bay Cogeneration Facility
**Facility ID No.:** 1050223
Polk County

**Title V Air Operation Permit**
**Proposed Permit No.:** 1050223-002-AV

**Project Description:**
**Initial Title V Permit**


**Permitting Authority**
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

# Title V Air Operation Permit

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Figure 1: Summary Report Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table 1-1, Summary of Air Pollutant Standards and Terms.
Table 2-1, Summary of Compliance Requirements.

**Permittee:**
Florida Power Corporation
P.O. Box 14042
MAC BB1A
St. Petersburg, Florida 33733

**PROPOSED Permit No.:** 1050223-002-AV
**Facility ID No.:** 1050223
**SIC Nos.:** 49, 4911
**Project:** Initial Title V Permit

This permit is for the operation of the Tiger Bay Cogeneration Facility. This facility is located at 3219 State Road 630 East, Ft. Meade, Polk County; UTM Coordinates: Zone 17, 416.2 km East and 3069.22 km North; Latitude: 24° 44' 47" North and Longitude: 81° 51' 0" West.

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**
Appendix I-1, List of Insignificant Emissions Units and/or Activities
Phase II Acid Rain Permit Application/Compliance Plan received February 18, 1998
Appendix PSS-1, Protocol for Start-up and Shutdown
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)
Appendix TV-1, Title V Conditions (version dated 12/2/97)
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

**Effective Date:** January 1, 2000
**Renewal Application Due Date:** July 5, 2004
**Expiration Date:** December 31, 2004

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms/rp

# Section I. Facility Information.

## Subsection A. Facility Description.

This facility consists of a single combustion turbine (CT) that exhausts through a heat recovery steam generator (HRSG). The facility is permitted to combust natural gas as the primary fuel and distillate fuel oil as back-up fuel. However, the fuel oil capability has yet to be installed. The facility also operates a zero liquid discharge (ZLD) system which provides treatment of process wastewater and exhausts through a baghouse for the control of particulate matter. The total combined capacity of the facility is 269.5 megawatts. A nominal 184 megawatts are provided by the combustion turbine. In addition a nominal 85.5 megawatts are provided by a steam generator. This facility is regulated under Acid Rain Phase II.

Also included in this permit are miscellaneous insignificant emissions units and/or activities. One of the insignificant emissions units is an auxiliary natural gas-fired steam boiler. The maximum heat input of the auxiliary boiler is 2.8 MMBtu/hr.

Based on the initial Title V permit application received June 14, 1996, this facility is not a major source of hazardous air pollutants (HAPs).

The use of 'Permitting Notes' throughout this permit are for informational purposes, only, and are not permit conditions.

## Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

Regulated Emissions Units:

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Combustion Turbine and Heat Recovery Steam Generator |
| -002 | Zero Liquid Discharge System (Wastewater Treatment System Spray Dryer Unit With Baghouse) |

***Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID Number(s). on all correspondence, test report submittals, applications, etc.***

**Subsection C. Relevant Documents.**

The following documents are part of this permit:
Appendix I-1, List of Insignificant Emissions Units and/or Activities
Phase II Acid Rain Permit Application/Compliance Plan received February 18, 1998
Appendix PSS-1, Protocol for Start-up and Shutdown
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)
Appendix TV-1, Title V Conditions (version dated 12/2/97)
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

{Permitting Note: The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.}

These documents are provided to the permittee for informational purposes only:
Appendix H-1, Permit History / ID Number Changes
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/5/97)
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements

These documents are on file with the permitting authority:
Initial Title V Permit Application Received June 14, 1996
Permit Number AC53-214903/PSD-FL-190 and BACT, Issued May 17, 1993
Permit Number 1050223-001-AC, Issued April 29, 1996
Permit Number 1050223-003-AC, Issued January 8, 1997
Permit Number 1050223-005-AC, Issued September 9, 1997
Permit Number 1050223-006-AC, Issued November 19, 1997
Permit Number 1050223-007-AC, Issued January 14, 1998

## Section II. Facility-wide Conditions.

**The following conditions apply facility-wide:**

**1.** Appendix TV-1, Title V Conditions, is a part of this permit.

{Permitting note: Appendix TV-1, Title V Conditions is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate. If desired, a copy of Appendix TV-1, Title V Conditions can be downloaded from the Division of Air Resources Management's Internet Web site located at either of the following addresses:
"http://www2.dep.state.fl.us/air/enhancd/permitting/TitleVperm.htm"
"http://www2.dep.state.fl.us/air/litesite/TitleVperm.htm".}

**2. Not federally enforceable**. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

**3.** Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
a. a risk management plan (RMP) when, and if, such requirement becomes applicable, and
b. certification forms and/or RMPs according to the promulgated rule schedule.
[40 CFR 68]

**4.** Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

**5.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}
[Rule 62-296.320(1)(a), F.A.C.]

**6.** General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

**7. Not federally enforceable.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Maintenance of paved roads as necessary.

b. Regular mowing of grass and care of vegetation.

c. Limiting access to plant property by unnecessary vehicular traffic.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in initial Title V permit application received June 14, 1996.]

{Permitting Note: Condition No. 8 presents the reasonable precautions to be implemented in accordance with Rule 62-296.320(4)(c)2, F.A.C., in lieu of the requirements of Condition No. 58 of Appendix TV-1.}

**8.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

**9.** The Department's Southwest District Office (Tampa) telephone number for reporting problems, malfunctions or exceedances under this permit is 813/744-6100, day or night, and for emergencies involving a significant threat to human health or the environment is 850/413-9911. The Department's Southwest District Office (Tampa) telephone number for routine business, including compliance test notifications, is 813/744-6100 during normal working hours.

**10.** The permittee shall submit all compliance related notifications and reports required of this permit (other than Acid Rain Program Information) to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Acid Rain Program Information shall be submitted, as necessary, to:

Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5510
Tallahassee, Florida 32399-2400
Telephone: 850/488-6140
Fax: 850/922-6979

**11.** Any reports, data, notifications, certifications, and requests (other than Acid Rain Program Information) required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155
Fax: 404/562-9164

Acid Rain Program Information should be sent to:

United States Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
Acid Rain Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9102
Fax: 404/562-9095

# Section III. Emissions Unit(s).

**Subsection A. This section addresses the following emissions unit(s).**

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Combustion Turbine and Heat Recovery Steam Generator |

This emissions unit is a co-generation facility consisting of a combustion turbine (CT) and a heat recovery steam generator (HRSG). The CT is permitted to combust natural gas (primary fuel) and fuel oil (back-up), was manufactured by General Electric (model number MS7221 FA), produces a nominal 184 megawatts (MW) and exhausts through the HRSG.

{Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. The actual volumetric flow rate may change as a result of the load and the turbine inlet temperature. Emissions from the CT are controlled by the use of dry low-$NO_X$ (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil.}

**General**

**A.1.** Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.
[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

**A.2.** Circumvention. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

**A.3.** Modifications. Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 1 l of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
[40 CFR 60.14(a)]

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

**Essential Potential to Emit (PTE) Parameters**

**A.4.** Permitted Capacity.
Combustion Turbine. The maximum heat input to the Combustion Turbine (CT) shall not exceed:
a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.
b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 95 to 100 percent of the unit's rated capacity (or to limit future operation to 105 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

{Permitting note: The heat input is dependent upon the ambient temperature in accordance with the manufacturer's curves.}

**A.5.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **A.54.**.
[Rule 62-297.310(2), F.A.C.]

**A.6.** Methods of Operation.
a. Natural gas shall be the primary fuel fired in the CT. No. 2 distillate fuel oil may be fired as "back-up" fuel, only. The burning of other fuels requires review, public notice, and approval through the pre-construction process (Chapters 62-210 and 62-212, F.A.C.).
b. Distillate fuel oil can be used as a backup fuel in the CT up to 3,742,327 gallons per calendar year.
c. Water injection shall be used when firing No. 2 fuel oil, for control of $NO_X$ emissions.
[Rule 62-213.410, F.A.C.; AC53-214903; PSD-FL-190]

**A.7.** Hours of Operation. This emissions unit may operate continuously, i.e., 8760 hours per year.
[Rule 62-210.200(PTE), F.A.C.; AC53-214903; PSD-FL-190]

**Emission Limitations and Standards**

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: The following emission rates as established by BACT in PSD-FL-190, are based on 27°F at base load. For $NO_X$ and $SO_2$, meeting the BACT limits assures compliance with the NSPS limits.}

**A.8.** Nitrogen Oxides. Nitrogen oxides emissions from the CT shall not exceed 42 ppmvd at 15 percent oxygen, 326 pounds per hour (lbs/hr) nor 48.9 tons per year (TPY), while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.9.** Nitrogen Oxides. Nitrogen oxides emissions from the CT shall not exceed 25 ppmvd at 15 percent oxygen, 161.9 lbs/hr nor 709.1 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.10.** Nitrogen Oxides. Nitrogen oxides emissions from the CT, after December 31, 1999, shall not exceed 15 ppmvd at 15 percent oxygen, 97.2 lbs/hr nor 425.7 TPY, while burning natural gas. This limit will be achieved by using appropriate combustion technology improvements or SCR. If SCR is chosen as the control technology, the maximum nitrogen oxides emission limits shall not exceed 10 ppmvd at 15 percent oxygen, 64.8 lbs/hr, nor 283.8 TPY.
[1050223-007-AC; AC53-214903; PSD-FL-190]

**A.11.** Nitrogen Oxides. Nitrogen oxides from the CT, while firing distillate fuel oil, shall be controlled by water injection. The minimum water-to-fuel ratio that must be met will be established and incorporated into this permit condition at such time that fuel oil is fired and compliance is demonstrated. **(Although currently allowed to fire distillate fuel oil, the fuel oil storage tanks and piping have not yet been installed at this facility.)**
[40 CFR 60.334(a); AC53-214903; PSD-FL-190]

**A.12.** Sulfur Dioxide. Sulfur dioxide emissions from the CT shall not exceed 99.7 lbs/hr nor 15.0 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.13.** Sulfur Dioxide. Sulfur dioxide emissions from the CT shall not exceed 4.86 lbs/hr nor 21.3 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.14.** Sulfur Dioxide - Sulfur Content. The sulfur content of the fuel oil fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(a). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of 0.05 percent, by weight.
[AC53-214903; PSD-FL-190]

**A.15.** Particulate Matter/$PM_{10}$. Particulate matter emissions of 10 microns or less from the CT shall not exceed 17 lbs/hr nor 2.6 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.16.** Particulate Matter/$PM_{10}$. Particulate matter emissions of 10 microns or less from the CT shall not exceed 9.0 lbs/hr nor 39.4 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.17.** Carbon Monoxide. Carbon monoxide emissions from the CT shall not exceed 30 ppmvd, 98.4 lbs/hr nor 14.8 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.18.** Carbon Monoxide. Carbon monoxide emissions from the CT shall not exceed 15 ppmvd, 48.8 lbs/hr nor 213.7 TPY, while burning natural gas at full load conditions.
[AC53-214903; PSD-FL-190]

**A.19.** Volatile Organic Compounds (VOCs). VOC emissions from the CT shall not exceed 7.5 lbs/hr nor 1.1 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.20.** Volatile Organic Compounds (VOCs). VOC emissions from the CT shall not exceed 2.8 lbs/hr nor 12.3 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.21.** Sulfuric Acid ($H_2SO_4$). $H_2SO_4$ emissions from the CT shall not exceed 1.22 lbs/hr nor 0.183 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.22.** Sulfuric Acid ($H_2SO_4$). $H_2SO_4$ emissions from the CT shall not exceed 0.595 lbs/hr nor 2.6 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.23.** Visible Emissions. Visible emissions shall not exceed 20 percent opacity while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.24.** Visible Emissions. Visible emissions shall not exceed 10 percent opacity while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.25.** Mercury. Mercury emissions from the CT shall not exceed $3.0 \times 10^{-6}$ lbs/MMBtu, $5.5 \times 10^{-3}$ lbs/hr nor $8.32 \times 10^{-4}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.26.** Arsenic. Arsenic emissions from the CT shall not exceed $4.2 \times 10^{-6}$ lbs/MMBtu, $7.77 \times 10^{-3}$ lbs/hr nor $1.17 \times 10^{-3}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.27.** Beryllium. Beryllium emissions from the CT shall not exceed $2.5 \times 10^{-6}$ lbs/MMBtu, $4.62 \times 10^{-3}$ lbs/hr nor $6.94 \times 10^{-4}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.28.** Lead. Lead emissions from the CT shall not exceed $8.9 \times 10^{-6}$ lbs/MMBtu, $1.65 \times 10^{-2}$ lbs/hr nor $2.47 \times 10^{-3}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

**A.29.** Excess emissions resulting from startup, shutdown, or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. See Appendix PSS-1, Protocol for Start-up and Shutdown.
[Rule 62-210.700(1), F.A.C.]

{Permitting Note: Once a written agreement between the Permittee and the Departments Southwest District has been acquired approving a "Protocol for Start-up and Shutdown", the protocol is automatically incorporated by reference and is a part of the permit. The protocol shall be used where applicable and where there is/are conflict(s) with the rule.}

**A.30.** 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 shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

**A.31.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
(1). *Nitrogen oxides*. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).
[40 CFR 60.334(c)(1)]

{Permitting Note: A properly installed and maintained $NO_X$ CEMS may be used as an accepteable alternative to measure periods of excess emissions.}

**Monitoring of Operations**

**A.32.** At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated 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 Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

**A.33.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, and using water injection to control $NO_X$ emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within $\pm 5.0$ percent and shall be approved by the Administrator.
[40 CFR 60.334(a)]

**A.34.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
(2) If the turbine is supplied its fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

[40 CFR 60.334(b)(1) & (2)]

**A.35.** The following custom fuel monitoring schedules shall be used at this facility:

A. Natural Gas.

Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule shall be followed for the natural gas fired at this facility and shall be as follows:

1. Monitoring of fuel nitrogen content shall not be required when NG is the only fuel being fired in the turbines.

2. Sulfur Monitoring

   a. Analysis for fuel sulfur content of the NG fired at this facility shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82, as referenced in 40 CFR 60.335(b)(2).

   {Permitimng Note: Retention of vendor delivery receipts is an acceptable alternative in-lieu of on-site fuel testing, as long as the tests performed by the vendor meet the above conditions.}

   b. The custom fuel monitoring schedule shall become effective on the date this permit is amended. Effective the date of this custom schedule, sulfur monitoring of NG fired at the facility shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.

   c. If, after the monitoring required in item 2(b) above, or herein, the sulfur content of the NG fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and in this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

   d. Should any sulfur analysis, as required in items 2(b) or 2(c), above, indicate noncompliance with 40 CFR 60.333 or this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

4. Records of sample analysis and fuel supply pertinent to this custom fuel monitoring schedule for NG shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

B. Distillate Fuel Oil.

The records of distillate fuel oil usage shall be kept by the company for a five-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the distillate fuel oil being fired in the gas turbine exceeds 0.05 percent sulfur content, by weight.
[Approved and effective December 6, 1994.]

**A.36.** Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

**Continuous Monitoring Requirements**

**A.37.** The permittee shall have installed and shall calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this source. The continuous emissions monitoring systems must comply with the certification and quality assurance, and other applicable requirements from 40 CFR 60, Appendix B, Performance Specification 2 (July 2, 1992) or 40 CFR 75, whichever is more stringent. Periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the standards in specific conditions **A.8. – A.11.** following the format of 40 CFR 60.7 (1997 version).
[AC53-214903; PSD-FL-190]

**A.38.** For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
[40 CFR 60.13(a)]

{Permitting Note: The requirements for the $NO_X$ CEMS which are installed and maintained in accordance with 40 CFR 75 are at least as stringent as the requirements of 40 CFR 60, and are an acceptable alternative to this condition.}

**A.39.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.
[40 CFR 60.13(f)]

**Required Tests, Test Methods and Procedures**

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**A.40.** Annual Tests Required. For this emissions unit, annual testing must be conducted for $NO_X$, $SO_2$, CO, $H_2SO_4$ and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards. VOC testing is only required if the CO test indicates an exceedance of the standard.
[1050223-006-AC; AC53-214903; PSD-FL-190]

{Permitting Note: Although emission limits have been established for Mercury, Arsenic, Beryllium and Lead, PSD-FL-190 only requires an initial compliance test. There is no requirement for subsequent periodic testing, however, under the provisions of Rule 62-297.310(7)(b), F.A.C., if the Department has reason to believe the emission limits are not being met, a special compliance test can be ordered.}

**A.41.** Nitrogen Oxides. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.
[40 CFR 60.335(a)]

**A.42.** Nitrogen Oxides and Sulfur Dioxide. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 60.333(a) as follows:
(3). EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 100 ppm of nitrogen oxide and 21 percent oxygen. The $NO_X$ emissions shall be determined at each of the load conditions specified in 40 CFR 60.335(c)(2).
[40 CFR 60.335(c)(3); and, applicant request.]

**A.43.** Sulfur Dioxide - Sulfur Content. The owner or operator shall determine compliance with the sulfur content standard of 0.05 percent, by weight, as follows: ASTM D 2880-96, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.
[40 CFR 60.335(d)]

{Permitimng Note: Retention of vendor delivery receipts is an acceptable alternative in-lieu of on-site fuel testing, as long as the tests performed by the vendor meet the above conditions.}

**A.44.** Nitrogen and Sulfur Contents. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
[40 CFR 60.335(e)]

**A.45.** Sulfur Dioxide and Sulfuric Acid Mist. EPA Method 8 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the sulfur dioxide and sulfuric acid mist standards in specific conditions **A.12. - 14., A.21. & A.22.**. Compliance with the sulfur dioxide and sulfuric acid mist emission limits can also be determined by calculations based on fuel analysis using ASTM D4294

(or latest edition) for the sulfur content of liquid fuels and ASTM D3246-81 (or latest edition) for sulfur content of gaseous fuel.
[AC53-214903; PSD-FL-190]

**A.46.** Carbon Monoxide (CO). EPA Method 10 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the CO standards in specific conditions **A.17. & A.18.**
[AC53-214903; PSD-FL-190]

**A.47.** Volatile Organic Carbons (VOC). EPA Method 25A pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the VOC standards in specific conditions **A.19. & A.20**. Annual VOC testing shall not be required provided that the annual CO test demonstrates emissions below the CO limits in specific conditions **A.17. & A.18.** EPA Method 3A may be used to determine oxygen concentrations.
[1050223-006-AC; AC53-214903; PSD-FL-190]

**A.48.** Visible Emissions. EPA Method 9 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the visible emissions standard in specific conditions **A.23. & A.24**. If the annual VE test indicates non-compliance with the standards, then a test for particulate matter shall be conducted using either EPA Method 5 or EPA Method 17 or EPA Methods 201A and 202.
[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-214903; PSD-FL-190]

**A.49.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
[40 CFR 60.11(a)]

**A.50.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
[40 CFR 60.8(c)]

**A.51.** The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facilities.
(2) Safe sampling platform(s).
(3) Safe access to sampling platform(s).
(4) Utilities for sampling and testing equipment.

[40 CFR 60.8(e)(1), (2), (3) & (4); and, PSD-FL-190]

**A.52.** Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

**A.53.** Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to

the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

**A.54.** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 95 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 105 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results.
[Rules 62-297.310(2) & (2)(a), F.A.C., PSD-FL-190]

**A.55.** Nitrogen Oxides. The test methods for nitrogen oxides emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO})\ (Pr/Po)^{0.5}\ e^{19(Ho-0.00633)}\ (288°K/Ta)^{1.53}$$

where:

$NO_X$ = emission rate of $NO_X$ at 15 percent $O_2$ and ISO standard ambient conditions, volume percent.
$NO_{XO}$ = observed $NO_X$ concentration, ppm by volume.
$P_r$ = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.
$P_o$ = observed combustor inlet absolute pressure at test, mm Hg.
$H_o$ = observed humidity of ambient air, g $H_2O$/g air.
e = transcendental constant, 2.718.
$T_a$ = ambient temperature, °K.

[40 CFR 60.335(c)(1)]

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**A.56.** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted $NO_X$ standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**A.57.** Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

**A.58.** Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
   c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (see Condition B.14.).

[Rule 62-297.310(4), F.A.C.]

**A.59.** Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or,
   b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,
   c. Each NESHAP pollutant, if there is an applicable emission standard.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the

alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**Recordkeeping and Reporting Requirements**

**A.60.** To determine compliance with the oil firing heat input limitation, the permittee shall maintain daily records of fuel oil consumption and hourly usage for the turbine and the average heating value for the fuel oil. Average fuel oil heating rate shall be the calendar year annual average higher heating value of #2 fuel oil purchased for the permittee's bulk fuel oil storage facility. All records shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Department upon request.
[Rule 62-213.440, F.A.C.]

**A.61.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

**A.62.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7(b)]

**A.63.** The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for 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.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

**A.64.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

*{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance} (electronic file name: figure1.doc)*

A.65. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emission and monitoring

summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) & (e)(2).
[40 CFR 60.7(e)(1)]

**A.66.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.
[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.67.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

**A.68.** Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.

12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**Subsection B. This section addresses the following emissions unit.**

| E.U. ID No. | Brief Description |
|---|---|
| -002 | Zero Liquid Discharge System (Wastewater Treatment System Spray Dryer Unit w/Baghouse) |

This zero liquid discharge system is a Unitech-Graver-Water model. The maximum heat input rate for this unit is 3.07 MMBtu/hour and is fired with natural gas. This equipment is used to process the concentrated wastewater brine from two falling-film evaporators. The effluent from the evaporators is pumped to the spray dryer module where it is atomized into a spray and contacted by heated air to evaporate the liquid, thus resulting in the formation of dry particles from the remaining solids. The exhaust gas stream from the dryer is sent through a baghouse dust collector where the particulate matter is removed with a removal efficiency of at least 99.9% (based on vendor's guarantee).

{Permitting notes: This unit began commercial operation on August 1, 1994. Stack height = 70 feet, exit diameter = 1.3 feet, exit temperature = 340 °F, actual volumetric flow rate = 5,050 acfm. PM emissions from this unit are controlled by a baghouse.}

**The following specific conditions apply to the emissions unit listed above:**

**Essential Potential to Emit (PTE) Parameters**

**B.1.** Permitted Capacity. The maximum operation heat input rate are as follows:

| Unit No. | MMBtu/hr Heat Input | Fuel Type |
|---|---|---|
| 2 | 3.07 | Natural Gas |

[Rules 62-4.160(2), 62-210.200(PTE); and, Applicant's request.]

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

**B.2.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **B.11.**
[Rule 62-297.310(2), F.A.C.]

**B.3.** Methods of Operation - Fuels. The only fuel that is allowed to be burned in this unit is natural gas.
[Rule 62-213.410, F.A.C.; and, AC53-230744.]

**B.4.** Hours of Operation. This emissions unit may operate continuously, i.e. 8760 hours/year. The permittee shall maintain an operation log available for Department inspection that documents the total hours of annual operation.
[Rule 62-210.200(PTE), F.A.C.; and, AC53-230744.]

**Emission Limitations and Standards**

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**B.5.** Particulate Matter. Particulate matter emissions shall not exceed 0.021 pound per hour nor 0.092 ton per year, as measured by applicable compliance methods. (See specific condition **B.10.**)
[Rules 62-296.700(2)(a) & (c), F.A.C.]

**B.6.** Visible Emissions. Visible emissions shall not exceed 5 percent opacity. This limitation has been accepted by the permittee in lieu of conducting an annual particulate matter compliance test.
If the Department has reason to believe that the particulate weight emission standard established in specific condition **B.5.** is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule, as defined in specific condition **B.10.**
[Rule 62-296.620(4), F.A.C.]

**Excess Emissions**

**B.7.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

**B.8.** 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 shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**B.9.** Visible Emissions. EPA Method 9 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the visible emissions standard in specific condition **B.6.**
[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-230744.]

**B.10.** Particulate Matter. EPA Method 5 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the particulate matter standard in specific condition **B.5.**
[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-230744.]

**B.11.** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(a), F.A.C.]

**B.12.** Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

**B.13.** Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

**B.14.** Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

    c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

TABLE 297.310-1
CALIBRATION SCHEDULE

| ITEM | MINIMUM CALIBRATION FREQUENCY | REFERENCE INSTRUMENT | TOLERANCE |
|---|---|---|---|
| Liquid in glass thermometer | Annually | ASTM Hg in glass ref. thermometer or equivalent, or thermometric points | +/-2% |
| Bimetallic thermometer | Quarterly | Calib. liq. in glass thermometer | 5 degrees F |
| Thermocouple | Annually | ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer | 5 degrees F |
| Barometer | Monthly | Hg barometer or NOAA station | +/-1% scale |
| Pitot Tube | When required or when damaged | By construction or measurements in wind tunnel D greater than 16" and standard pitot tube | See EPA Method 2, Fig. 2-2 & 2-3 |
| Probe Nozzles | Before each test or when nicked, dented, or corroded | Micrometer | +/-0.001" mean of at least three readings Max. deviation between readings .004" |
| Dry Gas Meter and Orifice Meter | 1. Full Scale: When received, When 5% change observed, Annually<br>2. One Point: Semiannually | Spirometer or calibrated wet test or dry gas test meter | 2% |
| | 3. Check after each test series | Comparison check | 5% |

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

**B.15.** Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**B.16.** Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or,
   b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,
   c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**Recordkeeping and Reporting Requirements**

**B.17.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

**B.18.** Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person

who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

# Section IV. Acid Rain Part.

**Operated by:** Tiger Bay Cogeneration Facility
**ORIS Code:** 7699

**Subsection A. This subsection addresses Acid Rain, Phase II.**

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

| E.U. ID No. | Description |
|---|---|
| -001 | Combustion Turbine and Heat Recovery Steam Generator |

**A.1.** The Phase II permit application submitted for this facility, as approved by the Department, is a part of this permit (included as an Attachment). The owners and operators of this Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

**A.2.** Sulfur dioxide ($SO_2$) allowance allocations for this Acid Rain unit are as follows:

| E.U. ID No. | EPA ID | Year | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|
| -001 | 1 | $SO_2$ allowances, under Table 2 or 3 of 40 CFR 73 | 0* | 0* | 0* | 0* | 0* |

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

**A.3.** Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rules 62-213.440(1)(c)1., 2. & 3., F.A.C.]

**A.4.** Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year.
{See condition No. 52., Appendix TV-1, Title V Conditions.}
[Rule 62-214.420(11), F.A.C.]

**A.5.** Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

**A.6.** Comments, notes, and justifications: None.

# Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Florida Power Corporation
Tiger Bay Cogeneration Facility

**PROPOSED Permit No.:** 1050223-002-AV
**Facility ID No.:** 1050223

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The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities:

Insignificant Emissions Related to Offices/Shop Area

1. Non-halogenated Solvent Degreasers

Insignificant Emissions Related to Lube Oil Storage - Outside Area

2. Waste Oil Tank (500 gal.)
3. Turbine Oil Storage (55 gal. drums)
4. Lube Oil Storage

Insignificant Emissions Related to Portable Water System

5. Water Treatment (Chlorine Injection)

Insignificant Emissions Related to Zero Liquid Discharge (ZLD) Acid Area

6. Sulfuric Acid Tank (10,000 gal.)
7. Acid Pumps (4)

Insignificant Emissions Related to Fire Protection

8. Diesel Fuel Tank (200 gal.)
9. Diesel Fuel fired emergency generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel

Insignificant Emissions Related to 250 KW Emergency Generator

10. Diesel Fuel Tank (200 gal.)
11. Diesel Fuel Fired Emergency Generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel

## Appendix I-1, Continued.

Insignificant Emissions Related to Electrical/Control Building

12. Switch Gear Fire Protection
13. Battery Room Fire Protection
14. Control Room Fire Protection
15. Water Lab

Insignificant Emissions Related to ZLD Control Building

16. Water Analysis Lab

Insignificant Emissions Related to ZLD Area

17. Chemical Injection Skid Pumps
18. Chemical Injection Tanks (3 @ 50 gal. each)
19. Chemical EL5600 (550 lb. tank)
20. Chemical Boilergaurd (450 lb. tank)

Insignificant Emissions Related to Natural Gas Yard

21. Natural Gas Release Valve
22. Natural Gas Metering Station
23. Natural Gas Knockout Tank

Insignificant Emissions Related to ST Turbine Area

24. (2) Lube-oil Reservoirs (mist eliminators)

Insignificant Emissions Related to CT Turbine Area

25. Lube-oil Reservoir (mist eliminator) (700 gal)
26. Turbine/Generator Fire System
27. Natural Gas Release Valve

Insignificant Emissions Related to Boiler Chemical Feed Skid

28. Conquor 3583 Tank (1 @ 2755 lb.)
29. Burolock HP 06 Tank (1 @ 3200 lb.)
30. Conquor 3475 Tank (1 @ 2790 lb.)

Insignificant Emissions Related to Cooling Tower Area

31. pH Guard Tank (500 gal., 2,925 lb.)
32. Conquor 3583 Tank (2 @ 500 lb.)
33. Fresh Water Cooling Towers

Insignificant Emissions Related to Auxiliary Boiler

34. Auxiliary Boiler (2.8 MMBtu/hr, $NO_X$ emissions 2 TPY)

Insignificant Emissions Related to General Site

35. Brazing, Soldering and Welding - Exempt per Rule 62-210.300(3)(a)16., F.A.C.
36. Routine Maintenance
37. Non-halogenated Solvent
38. Lube Oil Storage Tank (9500 gal.) (TK-010)

# Appendix H-1, Permit History/ID Number Changes

Florida Power Corporation
Tiger Bay Cogeneration Facility

**PROPOSED Permit No.**: 1050223-002-AV
**Facility ID No.:** 1050223

## Permit History (for tracking purposes):

| E.U. ID No. | Description | Permit No. | Issue Date | Expiration Date | Extended Date[1,2] | Revised Date(s) |
|---|---|---|---|---|---|---|
| -001 | Combined Cycle Combustion Turbine | AC53-214903 | 5/17/93 | 1/1/96 | | 4/29/96,1/8/97, 9/9/97, 11/19/97, 1/14/98 |
| | | PSD-FL-190 | | | | |
| | | 1050223-001-AC | 4/29/96 | | | |
| | | 1050223-003-AC | 1/8/97 | | | |
| | | 1050223-005-AC | 9/9/97 | | | |
| | | 1050223-006-AC | 11/19/97 | | | |
| | | 1050223-007-AC | 1/14/98 | | | |
| -002 | Wastewater Treatment System Spray Dryer Unit W/Baghouse | AC53-230744 | 6/29/93 | 1/1/96 | | |
| | | AO53-261950 | 1/25/95 | 1/31/96[1] | | |

## ID Number Changes (for tracking purposes):

From: **Facility ID No.**: 40TPA530223
To: **Facility ID No.**: 1050223

Notes:
1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., allows Title V Sources to operate under existing valid permits that were in effect at the time of application until the Title V permit becomes effective}

# Referenced Attachments

**Phase II Acid Rain Application/Compliance Plan**

**Appendix A-1, Abbreviations, Definitions, Citations, and Identification Numbers**

**Appendix PSS-1, Protocol for Start-up and Shutdown**

**Appendix SS-1, Stack Sampling Facilities (version dated 3/25/96)**

**Appendix TV-1, Title V Conditions (version dated 12/2/97)**

**Figure 1: Summary Report-
Gaseous and Opacity Excess Emission and Monitoring System Performance**

**Table 1-1, Summary of Air Pollutant Standards and Terms**

**Table 2-1, Summary of Compliance Requirements**

# Florida Power Corporation
# Tiger Bay Cogeneration Facility
**Facility ID No.**: 1050223
Polk County

## Title V Air Operation Permit
**Proposed Permit No.:** 1050223-002-AV

**Project Description:**
**Initial Title V Permit**


**Permitting Authority**
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

# Title V Air Operation Permit

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Figure 1: Summary Report Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).
Table 1-1, Summary of Air Pollutant Standards and Terms.
Table 2-1, Summary of Compliance Requirements.

# Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

**Permittee:**
Florida Power Corporation
300 South Adams Street
Tallahassee, Florida 32301

**PROPOSED Permit No.:** 1050223-002-AV
**Facility ID No.:** 1050223
**SIC Nos.:** **49**, 4911
**Project:** Initial Title V Permit

This permit is for the operation of the Tiger Bay Cogeneration Facility. This facility is located at 3219 State Road 630 East, Ft. Meade, Polk County; UTM Coordinates: Zone 17, 416.2 km East and 3069.22 km North; Latitude: 24° 44' 47" North and Longitude: 81° 51' 0" West.

STATEMENT OF BASIS: This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**
Appendix I-1, List of Insignificant Emissions Units and/or Activities
Phase II Acid Rain Permit Application/Compliance Plan received February 18, 1998
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)
Appendix TV-1, Title V Conditions (version dated 12/2/97)
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

**Effective Date:** January 1, 2000
**Renewal Application Due Date:** July 5, 2004
**Expiration Date:** December 31, 2004

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms/rp

# Section I. Facility Information.

## Subsection A. Facility Description.

This facility consists of a single combustion turbine (CT) that exhausts through a heat recovery steam generator (HRSG). The facility is permitted to combust natural gas as the primary fuel and distillate fuel oil as back-up fuel. However, the fuel oil capability has yet to be installed. The facility also operates a zero liquid discharge (ZLD) system which provides treatment of process wastewater and exhausts through a baghouse for the control of particulate matter. The total combined capacity of the facility is 269.5 megawatts. A nominal 184 megawatts are provided by the combustion turbine. In addition a nominal 85.5 megawatts are provided by a steam generator. This facility is regulated under Acid Rain Phase II.

Also included in this permit are miscellaneous insignificant emissions units and/or activities. One of the insignificant emissions units is an auxiliary natural gas-fired steam boiler. The maximum heat input of the auxiliary boiler is 2.8 MMBtu/hr.

Based on the initial Title V permit application received June 14, 1996, this facility is not a major source of hazardous air pollutants (HAPs).

The use of 'Permitting Notes' throughout this permit are for informational purposes, only, and are not permit conditions.

## Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

Regulated Emissions Units:

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Combustion Turbine and Heat Recovery Steam Generator |
| -002 | Zero Liquid Discharge System (Wastewater Treatment System Spray Dryer Unit With Baghouse) |

***Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID Number(s). on all correspondence, test report submittals, applications, etc.***

**Subsection C. Relevant Documents.**

The following documents are part of this permit:
Appendix I-1, List of Insignificant Emissions Units and/or Activities
Phase II Acid Rain Permit Application/Compliance Plan received February 18, 1998
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)
Appendix TV-1, Title V Conditions (version dated 12/2/97)
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

{Permitting Note: The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.}

These documents are provided to the permittee for information purposes only:
Appendix H-1, Permit History / ID Number Changes
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/5/97)
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements

These documents are on file with the permitting authority:
Initial Title V Permit Application Received June 14, 1996
Permit Number AC53-214903/PSD-FL-190 and BACT, Issued May 17, 1993
Permit Number 1050223-001-AC, Issued April 29, 1996
Permit Number 1050223-003-AC, Issued January 8, 1997
Permit Number 1050223-005-AC, Issued September 9, 1997
Permit Number 1050223-006-AC, Issued November 19, 1997
Permit Number 1050223-007-AC, Issued January 14, 1998

## Section II. Facility-wide Conditions.

**The following conditions apply facility-wide:**

**1.** Appendix TV-1, Title V Conditions, is a part of this permit.

{Permitting note: Appendix TV-1, Title V Conditions, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}

**2. Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

**3.** Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:

a. a risk management plan (RMP) when, and if, such requirement becomes applicable, and
b. certification forms and/or RMPs according to the promulgated rule schedule.

[40 CFR 68]

**4.** Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

**5.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}
[Rule 62-296.320(1)(a), F.A.C.]

**6.** General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

**7. Not federally enforceable.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Maintenance of paved roads as necessary.

b. Regular mowing of grass and care of vegetation.

c. Limiting access to plant property by unnecessary vehicular traffic.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in initial Title V permit application received June 14, 1996.]

{Permitting Note: Condition No. 8 presents the reasonable precautions to be implemented in accordance with Rule 62-296.320(4)(c)2, F.A.C., in lieu of the requirements of Condition No. 58 of Appendix TV-1.}

**8.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

**9.** The Department's Southwest District Branch Office (Tampa) telephone number for reporting problems, malfunctions or exceedances under this permit is 813/744-6100, day or night, and for emergencies involving a significant threat to human health or the environment is 850/413-9911. The Department's Southwest District Office (Tampa) telephone number for routine business, including compliance test notifications, is 813/744-6100 during normal working hours.

**10.** The permittee shall submit all compliance related notifications and reports required of this permit (other than Acid Rain Program Information) to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Acid Rain Program Information shall be submitted, as necessary, to:

Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5510
Tallahassee, Florida 32399-2400
Telephone: 850/488-6140
Fax: 850/922-6979

**11.** Any reports, data, notifications, certifications, and requests (other than Acid Rain Program Information) required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

Acid Rain Program Information should be sent to:

United States Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
Acid Rain Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9102
Fax: 404/562-9095

# Section III. Emissions Unit(s).

**Subsection A. This section addresses the following emissions unit(s).**

| E.U. ID No. | Brief Description |
|---|---|
| -001 | Combustion Turbine and Heat Recovery Steam Generator |

This emissions unit is a co-generation facility consisting of a combustion turbine (CT) and a heat recovery steam generator (HRSG). The CT is permitted to combust natural gas (primary fuel) and fuel oil (back-up), is made by General Electric (model number MS7221 FA), produces a nominal 184 megawatts (MW) and exhausts through the HRSG.

{Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. The actual volumetric flow rate may change as a result of the load and the turbine inlet temperature. Emissions from the CT are controlled by the use of dry low-$NO_X$ (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil.}

**General**

**A.1.** Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.
[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

**A.2.** Circumvention. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

**A.3.** Modifications. Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 11 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
[40 CFR 60.14(a)]

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

**Essential Potential to Emit (PTE) Parameters**

**A.4.** Permitted Capacity.
Combustion Turbine. The maximum heat input to the Combustion Turbine (CT) shall not exceed:
a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.

b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

{Permitting note: The heat input is dependent upon the ambient temperature in accordance with the manufacturer's curves.}

**A.5.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **A.54.**.
[Rule 62-297.310(2), F.A.C.]

**A.6.** Methods of Operation.
a. Natural gas shall be the primary fuel fired in the CT. No. 2 distillate fuel oil may be fired as "back-up" fuel, only. The burning of other fuels requires review, public notice, and approval through the pre-construction process (Chapters 62-210 and 62-212, F.A.C.).
b. Distillate fuel oil can be used as a backup fuel in the CT up to 3,742,327 gallons per calendar year.
c. Water injection shall be used when firing No. 2 fuel oil, for control of $NO_X$ emissions.
[Rule 62-213.410, F.A.C.; AC53-214903; PSD-FL-190]

**A.7.** Hours of Operation. This emissions unit may operate continuously, i.e., 8760 hours per year.
[Rule 62-210.200(PTE), F.A.C.; AC53-214903; PSD-FL-190]

**Emission Limitations and Standards**

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: The following emission rates as established by BACT in PSD-FL-190, are based on 27°F at base load. For $NO_X$ and $SO_2$, meeting the BACT limits assures compliance with the NSPS limits.}

**A.8.** Nitrogen Oxides. Nitrogen oxides emissions from the CT shall not exceed 42 ppmvd at 15 percent oxygen, 326 pounds per hour (lbs/hr) nor 48.9 tons per year (TPY), while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.9.** Nitrogen Oxides. Nitrogen oxides emissions from the CT shall not exceed 25 ppmvd at 15 percent oxygen, 161.9 lbs/hr nor 709.1 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.10.** Nitrogen Oxides. Nitrogen oxides emissions from the CT, after December 31, 1999, shall not exceed 15 ppmvd at 15 percent oxygen, 97.2 lbs/hr nor 425.7 TPY, while burning natural gas. This limit will be achieved by using appropriate combustion technology improvements or SCR. If SCR is chosen as the control technology, the maximum nitrogen oxides emission limits shall not exceed 10 ppmvd at 15 percent oxygen, 64.8 lbs/hr, nor 283.8 TPY.
[1050223-007-AC; AC53-214903; PSD-FL-190]

**A.11.** Nitrogen Oxides. Nitrogen oxides from the CT, while firing distillate fuel oil, shall be controlled by water injection, The minimum water-to-fuel ratio that must be met will be established and incorporated into this permit condition at such time that fuel oil is fired and compliance is demonstrated. **(Although currently allowed to fire distillate fuel oil, the fuel oil storage tanks and piping have not yet been installed at this facility.)**
[40 CFR 60.334(a); AC53-214903; PSD-FL-190]

**A.12.** Sulfur Dioxide. Sulfur dioxide emissions from the CT shall not exceed 99.7 lbs/hr nor 15.0 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.13.** Sulfur Dioxide. Sulfur dioxide emissions from the CT shall not exceed 4.86 lbs/hr nor 21.3 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.14.** Sulfur Dioxide - Sulfur Content. The sulfur content of the fuel oil fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(a). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of 0.05 percent, by weight.
[AC53-214903; PSD-FL-190]

**A.15.** Particulate Matter/$PM_{10}$. Particulate matter emissions of 10 microns or less from the CT shall not exceed 17 lbs/hr nor 2.6 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.16.** Particulate Matter/$PM_{10}$. Particulate matter emissions of 10 microns or less from the CT shall not exceed 9.0 lbs/hr nor 39.4 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.17.** Carbon Monoxide. Carbon monoxide emissions from the CT shall not exceed 30 ppmvd, 98.4 lbs/hr nor 14.8 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.18.** Carbon Monoxide. Carbon monoxide emissions from the CT shall not exceed 15 ppmvd, 48.8 lbs/hr nor 213.7 TPY, while burning natural gas at full load conditions.
[AC53-214903; PSD-FL-190]

**A.19.** Volatile Organic Compounds (VOCs). VOC emissions from the CT shall not exceed 7.5 lbs/hr nor 1.1 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.20.** Volatile Organic Compounds (VOCs). VOC emissions from the CT shall not exceed 2.8 lbs/hr nor 12.3 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.21.** Sulfuric Acid ($H_2SO_4$). $H_2SO_4$ emissions from the CT shall not exceed 1.22 lbs/hr nor 0.183 TPY, while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.22.** Sulfuric Acid ($H_2SO_4$). $H_2SO_4$ emissions from the CT shall not exceed 0.595 lbs/hr nor 2.6 TPY, while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.23.** Visible Emissions. Visible emissions shall not exceed 20 percent opacity while burning distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.24.** Visible Emissions. Visible emissions shall not exceed 10 percent opacity while burning natural gas.
[AC53-214903; PSD-FL-190]

**A.25.** Mercury. Mercury emissions from the CT shall not exceed $3.0 \times 10^{-6}$ lbs/MMBtu, $5.5 \times 10^{-3}$ lbs/hr nor $8.32 \times 10^{-4}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.26.** Arsenic. Arsenic emissions from the CT shall not exceed $4.2 \times 10^{-6}$ lbs/MMBtu, $7.77 \times 10^{-3}$ lbs/hr nor $1.17 \times 10^{-3}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.27.** Beryllium. Beryllium emissions from the CT shall not exceed $2.5 \times 10^{-6}$ lbs/MMBtu, $4.62 \times 10^{-3}$ lbs/hr nor $6.94 \times 10^{-4}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**A.28.** Lead. Lead emissions from the CT shall not exceed $8.9 \times 10^{-6}$ lbs/MMBtu, $1.65 \times 10^{-2}$ lbs/hr nor $2.47 \times 10^{-3}$ TPY, while firing distillate fuel oil.
[AC53-214903; PSD-FL-190]

**Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

**A.29.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

**A.30.** 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 shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

**A.31.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
(1). *Nitrogen oxides.* Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).
[40 CFR 60.334(c)(1)]

**Monitoring of Operations**

**A.32.** At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated 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 Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

**A.33.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, and using water injection to control $NO_X$ emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within $\pm 5.0$ percent and shall be approved by the Administrator.
[40 CFR 60.334(a)]

**A.34.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

(2) If the turbine is supplied its fuel without intermediate bulk storage, the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

[40 CFR 60.334(b)(1) & (2)]

**A.35.** The following custom fuel monitoring schedules shall be used at this facility:

A. Natural Gas.

Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule shall be followed for the natural gas fired at this facility and shall be as follows:

1. Monitoring of fuel nitrogen content shall not be required when NG is the only fuel being fired in the turbines.

2. Sulfur Monitoring

   a. Analysis for fuel sulfur content of the NG fired at this facility shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82, as referenced in 40 CFR 60.335(b)(2).

   b. The custom fuel monitoring schedule shall become effective on the date this permit is amended. Effective the date of this custom schedule, sulfur monitoring of NG fired at the facility shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.

c. If, after the monitoring required in item 2(b) above, or herein, the sulfur content of the NG fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and in this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

d. Should any sulfur analysis, as required in items 2(b) or 2(c), above, indicate noncompliance with 40 CFR 60.333 or this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

4. Records of sample analysis and fuel supply pertinent to this custom fuel monitoring schedule for NG shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

B. Distillate Fuel Oil.

The records of distillate fuel oil usage shall be kept by the company for a five-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the distillate fuel oil being fired in the gas turbine exceeds 0.05 percent sulfur content, by weight.

**A.36.** Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

**Continuous Monitoring Requirements**

**A.37.** The permittee shall have installed and shall calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this source. The continuous emissions monitoring systems must comply with the certification and quality assurance, and other applicable requirements from 40 CFR 60, Appendix B, Performance Specification 2 (July 2, 1992) or 40 CFR 75, whichever is more stringent. Periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the standards in specific conditions **A.8. – A.11.** following the format of 40 CFR 60.7 (1997 version).
[AC53-214903; PSD-FL-190]

**A.38.** For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
[40 CFR 60.13(a)]

**A.39.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.
[40 CFR 60.13(f)]

**Required Tests, Test Methods and Procedures**

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**A.40.** Annual Tests Required. For this emissions unit, annual testing must be conducted for $NO_X$, $SO_2$, CO, $H_2SO_4$ and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards. VOC testing is only required if the CO test indicates an exceedance of the standard.
[1050223-006-AC; AC53-214903; PSD-FL-190]

{Permitting Note: Although emission limits have been established for Mercury, Arsenic, Beryllium and Lead, PSD-FL-190 only requires an initial compliance test. There is no requirement for subsequent periodic testing, however, under the provisions of Rule 62-297.310(7)(b), F.A.C., if the Department has reason to believe the emission limits are not being met, a special compliance test can be ordered.}

**A.41.** Nitrogen Oxides. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.
[40 CFR 60.335(a)]

**A.42.** Nitrogen Oxides and Sulfur Dioxide. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 60.333(a) as follows:
(3). EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The $NO_X$ emissions shall be determined at each of the load conditions specified in 40 CFR 60.335(c)(2).
[40 CFR 60.335(c)(3)]

**A.43.** Sulfur Dioxide - Sulfur Content. The owner or operator shall determine compliance with the sulfur content standard of 0.05 percent, by weight, as follows: ASTM D 2880-96, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.
[40 CFR 60.335(d)]

**A.44.** Nitrogen and Sulfur Contents. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
[40 CFR 60.335(e)]

**A.45.** Sulfur Dioxide and Sulfuric Acid Mist. EPA Method 8 pursuant t2 Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the sulfur dioxide and sulfuric acid mist standards in specific conditions **A.12. - 14., A.21. & A.22.**. Compliance with the sulfur dioxide and sulfuric acid mist emission limits can also be determined by calculations based on fuel analysis using ASTM D4294 (or latest edition) for the sulfur content of liquid fuels and ASTM D3246-81 (or latest edition) for sulfur content of gaseous fuel.
[AC53-214903; PSD-FL-190]

**A.46.** Carbon Monoxide (CO). EPA Method 10 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the CO standards in specific conditions **A.17. & A.18.**
[AC53-214903; PSD-FL-190]

**A.47.** Volatile Organic Carbons (VOC). EPA Method 25A pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the VOC standards in specific conditions **A.19. & A.20**. Annual VOC testing shall not be required provided that the annual CO test demonstrates emissions below the CO limits in specific conditions **A.17. & A.18.** EPA Method 3A may be used to determine oxygen concentrations.

[1050223-006-AC; AC53-214903; PSD-FL-190]

**A.48.** Visible Emissions. EPA Method 9 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the visible emissions standard in specific conditions **A.23. & A.24**. If the annual VE test indicates non-compliance with the standards, then a test for particulate matter shall be conducted using either EPA Method 5 or EPA Method 17 or EPA Methods 201A and 202.
[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-214903; PSD-FL-190]

**A.49.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
[40 CFR 60.11(a)]

**A.50.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
[40 CFR 60.8(c)]

**A.51.** The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:
(1) Sampling ports adequate for test methods applicable to such facilities.
(2) Safe sampling platform(s).
(3) Safe access to sampling platform(s).
(4) Utilities for sampling and testing equipment.
[40 CFR 60.8(e)(1), (2), (3) & (4); and, PSD-FL-190]

**A.52.** Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

**A.53.** Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

**A.54.** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 95 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 105 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results.
[Rules 62-297.310(2) & (2)(a), F.A.C., PSD-FL-190]

**A.55.** Nitrogen Oxides. The test methods for nitrogen oxides emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO})\ (Pr/Po)^{0.5}\ e^{19(Ho-0.00633)}\ (288°K/Ta)^{1.53}$$

where:

$NO_X$ = emission rate of $NO_X$ at 15 percent $O_2$ and ISO standard ambient conditions, volume percent.

$NO_{XO}$ = observed $NO_X$ concentration, ppm by volume.

$P_r$ = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

$P_O$ = observed combustor inlet absolute pressure at test, mm Hg.

$H_O$ = observed humidity of ambient air, g $H_2O$/g air.

e = transcendental constant, 2.718.

$T_a$ = ambient temperature, °K.

[40 CFR 60.335(c)(1); AC53-214903; PSD-FL-190]

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**A.56.** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted $NO_X$ standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**A.57.** Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

**A.58.** Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
   c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 ~~(attached)~~,
See Condition B.14
[Rule 62-297.310(4), F.A.C.]

**A.59.** Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or,

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,
   c. Each NESHAP pollutant, if there is an applicable emission standard.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**Recordkeeping and Reporting Requirements**

**A.60.** To determine compliance with the oil firing heat input limitation, the permittee shall maintain daily records of fuel oil consumption and hourly usage for the turbine and the average heating value for the fuel oil. Average fuel oil heating rate shall be the calendar year annual average higher heating value of #2 fuel oil purchased for the permittee's bulk fuel oil storage facility. All records shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Department upon request.
[Rule 62-213.440, F.A.C.]

**A.61.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

**A.62.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7(b)]

**A.63.** The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for 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.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

**A.64.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

*{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance} (electronic file name: figure1.doc)*

**A.65.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and,

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2). The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance

report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) & (e)(2).
[40 CFR 60.7(e)(1)]

**A.66.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.
[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.67.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

**A.68.** Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.

11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**Subsection B. This section addresses the following emissions unit.**

| E.U. ID No. | Brief Description |
|---|---|
| -002 | Zero Liquid Discharge System (Wastewater Treatment System Spray Dryer Unit w/Baghouse) |

This zero liquid discharge system is a Unitech-Graver-Water model. The maximum heat input rate for this unit is 3.07 MMBtu/hour and is fired with natural gas. This equipment is used to process the concentrated wastewater brine from two falling-film evaporators. The effluent from the evaporators is pumped to the spray dryer module where it is atomized into a spray and contacted by heated air to evaporate the liquid, thus resulting in the formation of dry particles from the remaining solids. The exhaust gas stream from the dryer is sent through a baghouse dust collector where the particulate matter is removed with a removal efficiency of at least 99.9% (based on vendor's guarantee).

{Permitting notes: This unit began commercial operation on August 1, 1994. Stack height = 70 feet, exit diameter = 1.3 feet, exit temperature = 340 °F, actual volumetric flow rate = 5,050 acfm. PM emissions from this unit are controlled by a baghouse.}

**The following specific conditions apply to the emissions unit listed above:**

**Essential Potential to Emit (PTE) Parameters**

**B.1.** Permitted Capacity. The maximum operation heat input rate are as follows:

| Unit No. | MMBtu/hr Heat Input | Fuel Type |
|---|---|---|
| 2 | 3.07 | Natural Gas |

[Rules 62-4.160(2), 62-210.200(PTE); and, Applicant's request.]

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

**B.2.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **B.11.**
[Rule 62-297.310(2), F.A.C.]

**B.3.** Methods of Operation - Fuels. The only fuel that is allowed to be burned in this unit is natural gas.
[Rule 62-213.410, F.A.C.; and, AC53-230744.]

**B.4.** Hours of Operation. This emissions unit may operate continuously, i.e. 8760 hours/year. The permittee shall maintain an operation log available for Department inspection that documents the total hours of annual operation.
[Rule 62-210.200(PTE), F.A.C.; and, AC53-230744.]

**Emission Limitations and Standards**

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**B.5.** Particulate Matter. Particulate matter emissions shall not exceed 0.021 pound per hour nor 0.092 ton per year, as measured by applicable compliance methods.
[Rules 62-296.700(2)(a) & (c), F.A.C.]

**B.6.** Visible Emissions. Visible emissions shall not exceed 5 percent opacity. This limitation has been accepted by the permittee in lieu of conducting an annual particulate matter compliance test.
If the Department has reason to believe that the particulate weight emission standard established in specific condition **B.5.** is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule, as defined in specific condition **B.10.**
[Rule 62-296.620(4), F.A.C.]

**Excess Emissions**

**B.7.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

**B.8.** 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 shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

**Test Methods and Procedures**

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**B.9.** Visible Emissions. EPA Method 9 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the visible emissions standard in specific condition **B.6.**
[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-230744.]

**B.10.** Particulate Matter. EPA Method 5 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the particulate matter standard in specific condition **B.5.**

[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-230744.]

**B.11.** Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(a), F.A.C.]

**B.12.** Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

**B.13.** Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

**B.14.** Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

    c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

TABLE 297.310-1
CALIBRATION SCHEDULE

| ITEM | MINIMUM CALIBRATION FREQUENCY | REFERENCE INSTRUMENT | TOLERANCE |
|---|---|---|---|
| Liquid in glass thermometer | Annually | ASTM Hg in glass ref. thermometer or equivalent, or thermometric points | +/-2% |
| Bimetallic thermometer | Quarterly | Calib. liq. in glass thermometer | 5 degrees F |
| Thermocouple | Annually | ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer | 5 degrees F |
| Barometer | Monthly | Hg barometer or NOAA station | +/-1% scale |
| Pitot Tube | When required or when damaged | By construction or measurements in wind tunnel D greater than 16" and standard pitot tube | See EPA Method 2, Fig. 2-2 & 2-3 |
| Probe Nozzles | Before each test or when nicked, dented, or corroded | Micrometer | +/-0.001" mean of at least three readings Max. deviation between readings .004" |
| Dry Gas Meter and Orifice Meter | 1. Full Scale: When received, When 5% change observed, Annually<br>2. One Point: Semiannually | Spirometer or calibrated wet test or dry gas test meter | 2% |
| | 3. Check after each test series | Comparison check | 5% |

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

**B.15.** Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

**B.16.** Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or,
   b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,
   c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**Recordkeeping and Reporting Requirements**

**B.17.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

**B.18.** Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.

13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

# Section IV. Acid Rain Part.

**Operated by:** Tiger Bay Cogeneration Facility
**ORIS Code:** 7699

## Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

| E.U. ID No. | Description |
|---|---|
| -001 | Combustion Turbine and Heat Recovery Steam Generator |

**A.1.** The Phase II permit application submitted for this facility, as approved by the Department, is a part of this permit (included as an Attachment). The owners and operators of this Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

**A.2.** Sulfur dioxide ($SO_2$) allowance allocations for this Acid Rain unit are as follows:

| E.U. ID No. | EPA ID | Year | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|
| -001 | 1 | $SO_2$ allowances, under Table 2 or 3 of 40 CFR 73 | 0* | 0* | 0* | 0* | 0* |

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

**A.3.** Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rules 62-213.440(1)(c)1., 2. & 3., F.A.C.]

**A.4.** Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year.
{See condition No. 52., Appendix TV-1, Title V Conditions.}

[Rule 62-214.420(11), F.A.C.]

**A.5.** Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

**A.6.** Comments, notes, and justifications: None.

# Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Florida Power Corporation
Tiger Bay Cogeneration Facility

**PROPOSED Permit No.:** 1050223-002-AV
**Facility ID No.:** 1050223

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The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities:

Insignificant Emissions Related to Offices/Shop Area

1. Non-halogenated Solvent Degreasers

Insignificant Emissions Related to Lube Oil Storage - Outside Area

2. Waste Oil Tank (500 gal.)
3. Turbine Oil Storage (55 gal. drums)
4. Lube Oil Storage

Insignificant Emissions Related to Portable Water System

5. Water Treatment (Chlorine Injection)

Insignificant Emissions Related to Zero Liquid Discharge (ZLD) Acid Area

6. Sulfuric Acid Tank (10,000 gal.)
7. Acid Pumps (4)

Insignificant Emissions Related to Fire Protection

8. Diesel Fuel Tank (200 gal.)
9. Diesel Fuel fired emergency generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel

Insignificant Emissions Related to 250 KW Emergency Generator

10. Diesel Fuel Tank (200 gal.)
11. Diesel Fuel Fired Emergency Generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel

## Appendix I-1, Continued.

Insignificant Emissions Related to Electrical/Control Building

12. Switch Gear Fire Protection
13. Battery Room Fire Protection
14. Control Room Fire Protection
15. Water Lab

Insignificant Emissions Related to ZLD Control Building

16. Water Analysis Lab

Insignificant Emissions Related to ZLD Area

17. Chemical Injection Skid Pumps
18. Chemical Injection Tanks (3 @ 50 gal. each)
19. Chemical EL5600 (550 lb. tank)
20. Chemical Boilergaurd (450 lb. tank)

Insignificant Emissions Related to Natural Gas Yard

21. Natural Gas Release Valve
22. Natural Gas Metering Station
23. Natural Gas Knockout Tank

Insignificant Emissions Related to ST Turbine Area

24. (2) Lube-oil Reservoirs (mist eliminators)

Insignificant Emissions Related to CT Turbine Area

25. Lube-oil Reservoir (mist eliminator) (700 gal)
26. Turbine/Generator Fire System
27. Natural Gas Release Valve

Insignificant Emissions Related to Boiler Chemical Feed Skid

28. Conquor 3583 Tank (1 @ 2755 lb.)
29. Burolock HP 06 Tank (1 @ 3200 lb.)
30. Conquor 3475 Tank (1 @ 2790 lb.)

Insignificant Emissions Related to Cooling Tower Area

31. pH Guard Tank (500 gal., 2,925 lb.)
32. Conquor 3583 Tank (2 @ 500 lb.)
33. Fresh Water Cooling Towers

Insignificant Emissions Related to Auxiliary Boiler

34. Auxiliary Boiler (2.8 MMBtu/hr, $NO_X$ emissions 2 TPH)

Insignificant Emissions Related to General Site

35. Brazing, Soldering and Welding - Exempt per Rule 62-210.300(3)(a)16., F.A.C.
36. Routine Maintenance
37. Non-halogenated Solvent
38. Lube Oil Storage Tank (9500 gal.) (TK-010)

# Appendix H-1, Permit History/ID Number Changes

Florida Power Corporation
Tiger Bay Cogeneration Facility

**PROPOSED Permit No.:** 1050223-002-AV
**Facility ID No.:** 1050223

**Permit History (for tracking purposes):**

| E.U. ID No. | Description | Permit No. | Issue Date | Expiration Date | Extended Date[1,2] | Revised Date(s) |
|---|---|---|---|---|---|---|
| -001 | Combined Cycle Combustion Turbine | AC53-214903 PSD-FL-190 | 5/17/93 | 1/1/96 | | 4/29/96,1/8/97, 9/9/97, 11/19/97, 1/14/98 |
| | | 1050223-001-AC | 4/29/96 | | | |
| | | 1050223-003-AC | 1/8/97 | | | |
| | | 1050223-005-AC | 9/9/97 | | | |
| | | 1050223-006-AC | 11/19/97 | | | |
| | | 1050223-007-AC | 1/14/98 | | | |
| -002 | Wastewater Treatment System Spray Dryer Unit W/Baghouse | AC53-230744 | 6/29/93 | 1/1/96 | | |
| | | AO53-261950 | 1/25/95 | 1/31/96[1] | | |

**ID Number Changes (for tracking purposes):**

From: **Facility ID No.**: 40TPA530223
To: **Facility ID No.**: 1050223

Notes:
1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

# Referenced Attachments

**Phase II Acid Rain Application/Compliance Plan**

**Appendix A-1, Abbreviations, Definitions, Citations, and Identification Numbers**

**Appendix SS-1, Stack Sampling Facilities (version dated 3/25/96)**

**Appendix TV-1, Title V Conditions (version dated 12/2/97)**

**Figure 1: Summary Report-
Gaseous and Opacity Excess Emission and Monitoring System Performance**

**Table 1-1, Summary of Air Pollutant Standards and Terms**

**Table 2-1, Summary of Compliance Requirements**

# Referenced Attachments

**Phase II Acid Rain Application/Compliance Plan**

**Appendix A-1, Abbreviations, Definitions, Citations, and Identification Numbers**

**Appendix SS-1, Stack Sampling Facilities (version dated 3/25/96)**

**Appendix TV-1, Title V Conditions (version dated 12/2/97)**

**Figure 1: Summary Report-
Gaseous and Opacity Excess Emission and Monitoring System Performance**

**Table 1-1, Summary of Air Pollutant Standards and Terms**

**Table 2-1, Summary of Compliance Requirements**

# Appendix TV-1,
# Title V Conditions (version dated 12/2/97)

# Table 1-1, Summary of Air Pollutant Standards and Terms

Florida Power Corporation
Tiger Bay Cogeneration Facility

**PROPOSED Permit No.:** 1050023-002-AV
**Faciliy ID No. :** 1050223

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of the permit.

| E. U. ID No. | Brief Description | Pollutant Name | Fuel(s) | Hours/ Year | Allowable Emissions Standard(s) | lbs./hour | TPY | Equivalent Emissions[1] lbs./hour | TPY | Regulatory Citation(s) | See Permit Condition(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| -001 | Combustion turbine | VE | Distillate Fuel Oil | 8760 | 20% | | | N/A | N/A | PSD-FL-190, BACT | A.23. |
| | (1710 MMBtu/hour - N.G.) | | Natural Gas | 8760 | 10% | | | N/A | N/A | PSD-FL-190, BACT | A.24. |
| | (1849.9 MMBtu/hour - F.O.) | $PM_{10}$ | Distillate Fuel Oil | 8760 | N/A | 17.0 | 2.6 | N/A | N/A | PSD-FL-190, BACT | A.15. |
| | | | Natural Gas | 8760 | N/A | 9.0 | 39.4 | N/A | N/A | PSD-FL-190, BACT | A.16. |
| | | NOx | Distillate Fuel Oil | 8760 | 42 ppmvd @ 15 % $O_2$ | | | 326.0 | 48.9 | PSD-FL-190, BACT | A.8. |
| | | | Natural Gas | 8760 | 25 (15) ppmvd @ 15 % $O_2$[2] | | | 161.9 | 709.1 | PSD-FL-190, BACT | A.9., A.10. |
| | | $SO_2$ | Distillate Fuel Oil | 8760 | N/A | 99.7 | 15.0 | N/A | N/A | PSD-FL-190, BACT | A.12. |
| | | | Natural Gas | 8760 | N/A | 4.86 | 21.3 | N/A | N/A | PSD-FL-190, BACT | A.13. |
| | | % Sulfur | Distillate Fuel Oil | 8760 | max. sulfur content 0.05 %, by wt. | | | 85.2 | 12.78 | PSD-FL-190, BACT | A.14. |
| | | CO | Distillate Fuel Oil | 8760 | 30 ppmvd | | | 98.4 | 14.8 | PSD-FL-190, BACT | A.17. |
| | | | Natural Gas | 8760 | 15 ppmvd | | | 48.8 | 213.7 | PSD-FL-190, BACT | A.18. |
| | | VOC | Distillate Fuel Oil | 8760 | N/A | 7.5 | 1.1 | N/A | N/A | PSD-FL-190, BACT | A.19. |
| | | | Natural Gas | 8760 | N/A | 2.8 | 12.3 | N/A | N/A | PSD-FL-190, BACT | A.20. |
| | | $H_2SO_4$ | Distillate Fuel Oil | 8760 | N/A | 1.22 | 0.183 | 1.22 | 0.183 | PSD-FL-190, BACT | A.21. |
| | | | Natural Gas | 8760 | N/A | 0.595 | 2.6 | 0.595 | 2.6 | PSD-FL-190, BACT | A.22. |
| | | Hg | Distillate Fuel Oil | 8760 | $3.0 \times 10^{-6}$ lbs/MMBtu | | | $5.5 \times 10^{-3}$ | $8.32 \times 10^{-4}$ | PSD-FL-190, BACT | A.25. |
| | | Arsenic | Distillate Fuel Oil | 8760 | $4.2 \times 10^{-6}$ lbs/MMBtu | | | $7.77 \times 10^{-3}$ | $1.17 \times 10^{-3}$ | PSD-FL-190, BACT | A.26. |
| | | Be | Distillate Fuel Oil | 8760 | $2.5 \times 10^{-6}$ lbs/MMBtu | | | $4.62 \times 10^{-3}$ | $6.94 \times 10^{-4}$ | PSD-FL-190, BACT | A.27. |
| | | Pb | Distillate Fuel Oil | 8760 | $8.9 \times 10^{-6}$ lbs/MMBtu | | | $1.65 \times 10^{-2}$ | $2.47 \times 10^{-3}$ | PSD-FL-190, BACT | A.28. |
| -002 | Zero Liquid Discharge System | VE | Natural Gas | 8760 | 5% | | | N/A | N/A | Applicant Request | B.6. |
| | (3.07 MMBtu/hr - N. G. only) | $PM_{10}$ | Natural Gas | 8760 | N/A | 0.021 | 0.092 | 0.021 | 0.092 | 62-296.700(a) & (c) | B.5. |

Notes:
1 The "Equivalent Emissions" listed are for informational purposes.
2 $NO_X$ emissions from the CT shall be 15 ppm or less by 12/31/1999.

## Table 2-1, Summary of Compliance Requirements

Florida Power Corporation
Tiger Bay Cogeneration Facility

**PROPOSED Permit No.:** 1050023-002-AV
**Facility ID No.:** 1050223

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

| E. U. ID No. | Brief Description | Pollutant Name or Parameter | Fuel(s) | Compliance Method | Testing Time Frequency | Frequency Base Date | Min. Compliance Test Duration | CMS[3] | See Permit Condition(s) |
|---|---|---|---|---|---|---|---|---|---|
| -001 | Combustion Turbine (1710 MMBtu/hour - N.G.) (1849.9 MMBtu/hour - F.O. HRSG (Phase II Acid Rain) | VE | Distillate Fuel Oil | EPA method 9 | Annually | | 60 Minutes | No | A.40., A.48., A.58. 59 48-50, 54 |
| | | | Natural Gas | EPA method 9 | N/A | | 60 Minutes | No | |
| | | PM | Distillate Fuel Oil | EPA method 15 or 17 | Annually[1] | | 1 hour | No | A.40., A.48., A.50. - 54., A.57. - 59 49 |
| | | | Natural Gas | or EPA methods 201a and 202 | Annually[1] | | 1 hour | No | A.58 |
| | | $NO_x$ | Distillate Fuel Oil | EPA Method 20 | Annually | | 1 hour | Yes | A.37. - 42., A.53. - 55., A.59. |
| | | | Natural Gas | EPA Method 20 | Annually | | 1 hour | Yes | 40 44. 50 - 59 |
| | | $SO_2$ | Distillate Fuel Oil | ASTM D 2880-96 | Annually | | 1 hour | No | A.40., A.42. - A.45., A.49. - 54., |
| | | | Natural Gas | ASTM D 1072-90(94)E-1 | Annually | | 1 hour | No | A.57. - A.59. |
| | | $SO_2$, $H_2SO_4$ mist | Distillate Fuel Oil | ASTM D4294 | Annually | | 1 hour | No | A.40., A.45., A.49. - 54., |
| | | | Natural Gas | ASTM D3246-81 | Annually | | 1 hour | No | A.57. - A.59. |
| | | CO | Distillate Fuel Oil | EPA Method 10 | Annually | | 1 hour | No | A.40., A.46., A.49. - 54., |
| | | | Natural Gas | EPA Method 10 | Annually | | 1 hour | No | A.57. - A.59. |
| | | VOC | Distillate Fuel Oil | EPA Method 25A | Annually[2] | | 1 hour | No | A.40., A.47., A.49. - 54. |
| | | | Natural Gas | EPA Method 25A | Annually[2] | | 1 hour | No | A.57. - A.59. |
| -002 | Zero Liquid Discharge Syste (3.07 MMBtu/hr - N.G. only) | VE | Natural Gas | EPA Method 9 | Annually | | 30 minutes | No | B.6., B.9., B.11. - B.14., B.16. |

Notes:

1. Annual particulate matter tests are not required unless visible emissions tests indicate standards have been violated.
2. Annual VOC tests are not required if test for CO indicates compliance with the standards.
3 CMS [ = ] continuous monitoring system used for monitoring requirement in lieu of fuel sampling and analysis if marked 'yes'.
(Acceptable as long as CMS is maintained and calibrated as required.)

Finish PM.