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MAR 20 2002

March 12, 2002

Scott M. Sheplak Bureau of Air Regulation State of Florida Department of Environmental Protection 2600 Blair Stone Road Mail Station #5505 Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

Re: Comments to Draft Title V Permit; Ft. Myers Power Plant, 0710002-010AV; Combustion Turbine Units 2A-2F.

Dear Scott,

Regarding the Draft Title V Permit referenced above, FPL has the following comments:

Page 15 of 31; Specific Condition No. C-16. Visible Emissions – Heaters [Attachment No. 1] and Page 19 of 31 Specific Condition C-32. Compliance with the Visible Emission limits[Attachment No. 2] - The Draft Title V Permit requires annual visible emissions testing for the direct-fired natural gas heaters, as also shown in Table 2-1, Summary of Compliance Requirements [Attachment No. 3].

Comment: The natural gas heaters are only direct fired with natural gas as the heating medium when the Combustion Turbine is operating in the simple cycle mode. Simple cycle operation was necessary before the plant was fully converted to combined cycle operation. The combustion turbines are not expected to operate in the simple cycle mode, except for rare (estimated <2% of the operating hours/yr.) occasions due to unplanned circumstances affecting the HRSG. Once the conversion to combined cycle is complete, which is scheduled to be May 2002, hot water from the Heat Recovery Steam Generator (HRSG) will become the heating medium for the natural gas. No natural gas is fired in the heaters during combined cycle operation.

An annual Visible Emissions test would require that each heater be reconfigured from its normal hot water mode of operation to direct-fired mode of operation only for the purpose of conducting the annual VE test.

FPL requests that annual VE testing requirement for the natural gas heaters be deleted, and the heaters be listed among the insignificant sources in the permit.

Phase II Permit Application –

Comment: It was previously recognized that the Commence Operation Date and the Monitor Certification Deadline dates for the two peaking units, PFM 3A & PFM 3B in the original application were incorrect. The application was corrected and submitted to the FDEP in November 2001, and subsequently deemed as complete [Attachment 4].

 Emission Units 018-023 Combined Cycle CTs - Page 18 of 31; Specific Condition C.28. Annual Tests Required and Specific Condition C.29. Compliance with the NOx emission limit [Attachment No. 5], and Table 2-1, Summary of Compliance Requirements [Attachment No. 3].

Comment: Page 17 of 31, Specific Condition C.24. Continuous compliance with the NOx emission limits [Attachment No. 6] indicates that NOx compliance is determined by a 30-day rolling average of CEMS data. FPL requests that the annual NOx test for Emission units 018-023 be deleted.

Thanks for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (561) 691-2877.

Very Truly yours,

Kevin Washington

Senior Environmental Specialist Florida Power and Light Company

Attachments: 6

DRAFT Permit No: 0710002-007-AV Facility ID No.: 0710002

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 limits, as established by 0710002-004-AC, are determined for this project assuming full load.

- Nitrogen Oxides CTs. The concentration of NO_x concentrations in the exhaust gas of each CT C.9. shall not exceed 9 ppmvd at 15% O, on a 30-day rolling average basis as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. In addition, NO_x emissions calculated as NO₂ (at ISO conditions) shall exceed neither 9 ppm @15% O, nor 65 lb/hr. [0710002-004-AC]
- C.10. <u>Nitrogen Oxides Heaters</u>. Nitrogen oxides emissions from the six gas heaters shall not exceed 0.10 lb/MMBtu (at ISO conditions). [0710002-004-AC & 0710002-008-AC]
- C.11. Sulfur Dioxide.
 - a. No owner or operator subject to the provisions of 40 CFR 60.333 shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent.
 - b. Sulfur dioxide emissions shall be controlled by the firing of pipeline quality natural gas, per Specific Condition C.7. Compliance with this condition assures compliance with the NSPS limit contained in Specific Condition C.11.a.

[0710002-004-AC; 40 CFR 60.333; and, Applicant Request.]

- C.12. Carbon Monoxide CTs. The concentration of carbon monoxide emissions (@15% O₂ in the exhaust gas) shall not exceed 12 ppmvd as measured by EPA Method 10. CO emissions (at ISO conditions) shall not exceed 43 lb/hr (per CT) to be demonstrated by stack test. [0710002-004-AC]
- C.13. Carbon Monoxide Heaters. Carbon monoxide emissions from the gas heaters shall not exceed 0.15 lb/MMBtu (at ISO conditions). [0710002-004-AC & 0710002-008-AC]
- C.14. Volatile Organic Compounds (VOCs). The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd. VOC emissions (at ISO conditions) shall not exceed 2.9 lb/hr per CT. [0710002-004-AC]
- C.15. Visible Emissions CTs. Visible emissions from the CTs shall not exceed 10 percent opacity. [0710002-004-AC]
- C.16. Visible Emissions Heaters. Visible emissions from the gas heaters shall not exceed 10 percent [0710002-004-AC]

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.

Florida Power and Light Company Fort Myers Plant DRAFT Permit No: 0710002-007-AV Facility ID No.: 0710002

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

- C.30. Compliance with the CO emission limit: Annual compliance testing for CO, using EPA Reference Method 10, may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NO_X RATA testing which is performed pursuant to 40 CFR 75. [0710002-004-AC]
- C.31. Compliance with the VOC emission limit: The CO emission limit will be employed as a surrogate and no annual testing is required. If the results of the CO test do not demonstrate compliance with the CO limit, compliance with the VOC limit shall be demonstrated by conducting a stack test using EPA Method 18 or 25A.

 [0710002-004-AC]
- C.32. Compliance with the Visible Emissions limits. EPA Reference Method 9 shall be used to demonstrate compliance with the visible emissions standard in Specific Conditions C.15. & C.16. [Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, 0710002-004-AC]
- C.33. <u>Nitrogen Oxides</u>. To compute the emissions of nitrogen oxides, 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)]
- C.34. 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)]
- C.35. Compliance with the SO₂ and PM/PM₁₀ emission limits. Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas is the method for determining compliance for SO₂ and PM₁₀. For the purposes of demonstrating compliance with the 40 CFR 60.333, natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. Gas analysis, if conducted, 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 pursuant to 40 CFR 60.335(e) (1997 version). However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used for determination of fuel sulfur content if gas analysis is done. [0710002-004-AC]
- C.36. 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)]

C.37. 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]

ATTACHMENT

Table 2-1, Summary of Compliance Requirements

Florida Power and Light Company
Fort Myers Plant

DRAFT Permit No.: 0710002-010-AV

Facility ID No.: 0710002

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					
-003 to -014	Combustion Turk	Combustion Turbines				_	
			Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or Parameter	Fuels	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
Opacity	Oil	EPA Method 9	Annual	1-Oct	1 Hour		B.10.1
Nitrogen Oxides	Oil	EPA Method 7 or 7E	Annual	1-Oct			B.10.2, B.14.2
Arsenic	Used Oil	Fuel Analysis	Batch				B.15
Cadmium	Used Oil	Fuel Analysis	Batch				B.15
Chromium	Used Oil	Fuel Analysis	Batch				B.15
Lead	Used Oil	Fuel Analysis	Batch				B.15
РСВ	Used Oil	Fuel Analysis	Batch				B.15
Total Halogens	Used Oil	Fuel Analysis	Batch				B.15
Flash Point	Used Oil	Fuel Analysis	Batch				B.15

E.U. ID No.		Brief Description					
-018 to -023	Combined Cycle	e Combustion Turbines					
	· · · · · · · · · · · · · · · · · · ·		Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
, or Parameter	Fuels	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
Visible Emissions	Gas	EPA Method 9	Annual	1-Oct	1 Hour		C.32.
Nitrogen Oxides	Gas	EPA Method 20	Annual	1-Oct		Yes	C.29.
Carbon Monoxide	Gas	EPA Method 10	Annual	1-Oct			C.30.
voc	Gas	EPA Method 18 or 25	Only if CO test in	dicates CO exc	eedence		C.31
Sulfur Dioxide	Gas	Fuel Analysis	Continuous				C.35.

E.U. ID Na.		Brief Description					
-024	6	gas fuel pre-heaters				_	
			Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test	:	
or Parameter	Fuels	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
Visible Emissions	Gas	EPA Method 9	Annual	1-Oct	1 Hour		C.32.
Nitrogen Oxides	Gas	EPA Method 20	N/A				
Carbon Monoxide	Gas	EPA Method 10	N/A				

Notes:

^{*}Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

^{**}CMS [=] Continuous Monitoring System

ATTACHMENT NO. 4



Department of Environmental Protection

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

David B. Struhs Secretary

December 20, 2001

Mr. Ken Simmons
Manager, New Capacity Projects
Florida Power & Light Company
Environmental Services Department
P.O. Box 14000
Juno Beach, Florida 33408

Re:

Acid Rain Phase II Revised Permit Application and Retired Unit Exemption forms

Fort Myers Plant

Facility ID: 0710002; ORIS Code: 0612

Dear Mr. Simmons:

Thank you for your recent submission of the revised Acid Rain Phase II Permit Application and Retired Unit Exemption forms for the subject facility. We have reviewed the documents and deem them complete.

Sincerely,

Scott M. Sheplak, P.E.

Administrator Title V Section

cc: Jenny Jachim, U.S. EPA Region 4



Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

November 29, 2001

Scott M. Sheplak
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee. FL 32399-2400

Re: Fort Myers Plant
Revised Acid Rain Phase II Application
Retired Unit Exemption Form (40 CFR 72.8)

Dear Sirs:

Enclosed please find copies of the above referenced forms for FPL's Fort Myers generating facility.

The Fort Myers station is an existing facility for which FPL submitted a Phase II Application for adding Two (2) new combustion turbine peaking units in July, 2000. In November of 1998 FPL submitted a Phase II application for the repowering of two (2) existing oil-fired steam boiler units with six (6), combined cycle combustion turbines.

The attached are submitted to:

1) Remove PFM1 and PFM2 from the Phase II Application (taken out of service in September of 2001) and to change the commence operation date for PFM3A and PFM3B (Peakers) from 12/1/2001 to FPL's target date of 6/1/2003 on the Application.

2) The Retired Unit Exemption is submitted to indicate the first full calendar year in which the units PFM1 & PFM2 (ORIS Code 000612) will meet the requirements of 40 CFR 72.8(d)

If further information is desired please contact me at (561) 691 – 2216 or via e-mail at the following address, k_h_simmons@fpl.com.

Sincerely

Ken Simmons

Manager, New Capacity Projects Juno Environmental services

Cc: USEPA Acid Rain Program

Phase II Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

Revised

Compliance

Plan

STEP 1 Identify the source by plant name, State, and ORIS code from NADB

Plant Name Fort Myers Plant State FL ORIS Code 000612

d

STEP 2 Enter the unit ID# for each affected unit and indicate whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

Unit ID#	Unit will hold allowances in accordance	Repowering Plan	New Units	New Units	
	with 40 CFR 72.9(c)(1)		Commence Operation Date	Monitor Certification Deadline	
FM2CTA	Yes	N/A	1/1/2001	4/1/2001	
FM2CTB	Yes	N/A	2/1/2001	5/11/2001	
FM2CTC	Yes	N/A	3/1/2001	6/1/2001	
FM2CTD	Yes	N/A_	4/1/2001	7/1/2001	
FM2CTE	Yes	N/A	5/1/2001	8/1/2001	
FM2CTF	Yes	N/A	6/1/2001	9/1/2001	
PFM3A	Yes	N/A	6/1/2003	9/1/2003	
PFM3B	Yes	N/A	6/1/2003	9/1/2003	
	Yes				

STEP 3 Check the box if the response in column c of Step 2 is "Yes" for any unit For each unit that is being repowered, the Repowering Extension Plan form is included.

Florida Power and Light Company Fort Myers Plant

DRAFT Permit No: 0710002-007-AV Facility ID No.: 0710002

CEMS for reporting excess emissions: The NO_x CEMS may be used in lieu of the requirement for reporting excess emissions in 40 CFR 60.334(c)(1), Subpart GG (1997 version). Upon request from DEP, the CEMS emission rates for NO_X on each CT shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332. [0710002-004-AC]

C.26. 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.}

C.27. 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.

C.28. Annual Tests Required. For these emissions units, annual testing must be performed during every federal fiscal year (October 1 - September 30) for NO_x, CO, and VE, in accordance with the requirements listed below. No other test methods may be used for compliance testing unless prior DEP approval is received in writing. PM testing is only required if the VE test indicates an exceedance of the standards. VOC testing is only required if the annual CO test indicates an exceedance of the CO standard. [0710002-004-AC]

C.29. Compliance with the NO_x emission limit: If requested, the test method for emissions of nitrogen oxides shall be EPA Reference 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

 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_0 = 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); Rule 62-297.401, F.A.C.; and 0710002-004-AC]

Florida Power and Light Company Fort Myers Plant

DRAFT Permit No: 0710002-007-AV Facility ID No.: 0710002

(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)]

C.21. <u>Natural Gas Monitoring Schedule</u>: The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2):

a. The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR

72.30.

b. The permittee shall submit a monitoring plan, certified by signature of the Designated Representative (DR), that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).

c. Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements

of 40 CFR 75 and certified by the USEPA.

[0710002-004-AC]

C.22. <u>Determination of Process Variables.</u>

(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

C.23. Continuous Monitoring System:

a. The permittee shall have installed and shall calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the emissions of nitrogen oxides from each CT. Thirty-day rolling average periods when NO_x emissions (ppmvd @ 15% oxygen) are above the standards, listed in Specific Conditions C.9. and C.10., shall be provided to the DEP South District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternately by facsimile within one working day).

b. When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the thirty-day rolling average emission rate.

[Rules 62-210.700 & 62-4.130, F.A.C.; and, 071002-004-AC]

C.24. Continuous compliance with the NO_x emission limits. Continuous compliance with the NO_x emission limits shall be demonstrated with the CEM system based on a 30-day rolling average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new 30 day average emission rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction. A valid hourly emission rate shall be calculated for each hour in which at least two NO_x concentrations are obtained at least 15 minutes apart. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C.; 40CFR75; and, 0710002-004-AC]



February 18, 2002

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BUREAU OF AIR REGULATION

Scott M. Sheplak
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, FL 32399-2400

Re: Title V Permit Application; Ft. Myers Power Plant, 0710002-010AV; Combustion Turbine Units 2A-2F.

Dear Scott,

Enclosed please find the original Affidavit of Publication regarding the PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION per your letter of January 30, 2002. The Ft. Myers News Press gave public notice on February 13, 2002.

Thanks for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (561) 691-2877.

Very Truly yours,

Kevin Washington

Senior Environmental Specialist Florida Power and Light Company

Enclosures: 1

NEWS-PRESS

Published every morning - Daily and Sunday Fort Myers, Florida

Affidavit of Publication

STATE OF FLORIDA COUNTY OF LEE

Before the undersigned authority, personally appeared Kieanna Henry

who on oath says that he/she is the

Asst. Legal Clerk of the News-Press, a daily newspaper, published at Fort Myers, in Lee County, Florida; that the attached copy of advertisement, being a

Legal Notice

In the matter of DEP Air Permit to Florida Power and

was published in said newspaper in the issues of

February 13, 2002

Affiant further says that the said News-Press is a paper of general circulation daily in Lee, Charlotte, Collier, Glades and Hendry Counties and published at Fort Myers, in said Lee County, Florida and that said newspaper has heretofore been continuously published in said Lee County; Florida, each day, and has been entered as a second class mail matter at the post office in Fort Myers in said Lee County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Kuxia Hens

Sworn to and subscribed before me this

13th day of February 2002 by

Kieanna Henry

personally known to me or who has produced

as identification, and who did or did not take an oath.

Notary Public Steeleda

Print Name_

My commission Expires:



proceeding, and an explanation of how petitioner and address are identified Power & Light will be affected by the agency determination; and an explanation of how petitioner and address are identified Power & Light will be affected by the agency determination; and the interest of the agency action or this Title V. Air Operation Permit Revision or ate the require-entition allowances and allowances and allowances are in the petitioner received notice of the agency action or proposed action; and allowances and and the petitioner received notice of the agency action or proposed action; and allowances and agency action or proposed action; and agency action or proposed action; and agency action or proposed action; and allowances are in a disputed in accordance in the relief sought by the petitioner contents require reversal or modification of the agency's proposed action; and and action; and agency's proposed action; and allowances are in a disputed the petitioner contents require reversal or modification of the agency's proposed action; and allowances are in a disputed to the petitioner of the agency action proposed action; and allowances are in a disputed to the petitioner and allowances are in a disputed to the petitioner of the agency action; and ac



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January 22, 2002

BUREAU OF AIR REGULATION

Scott M. Sheplak
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, FL 32399-2400

Re: Air Construction Permit; Ft. Myers Power Plant, 0710002-004AC; Combined Cycle Units 2A-2F.

Dear Scott.

Regarding the permit referenced above, FPL would like to propose an administrative change in the language that will more precisely define "Cold Start-up".

In the current permit, EXCESS EMISSIONS, Specific Condition No. 24; Excess Emission Requirements: [Attachment No. 1] the last sentence of the first bullet defines cold start-up as follows: "Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours."

In the case of the Ft. Myers Combined Cycle units, cold start-up is dependent upon the physical conditions of the Heat Recovery Steam Generator, and the process to warm it's thick-walled metal components within recommended engineering parameters. FPL would like to propose that the language of the definition of cold start-up be changed to: "Cold startup is defined as a startup to combined cycle operation when the heat recovery steam generator high pressure steam drum is below 450 psig for at least one hour."

The condition-based definition suggested above is more consistent with the recommended engineering specifications than a time-based blanket of 48 hours. The proposed definition also carries with it the potential for minimizing the overall emissions associated with a cold start-up. For example, if a unit must wait 48 hours to begin the cold start-up process, the high pressure steam drum, in many cases, will continue to deteriorate in pressure and temperature which will prolong the startup process, resulting in a longer period of excess emissions. If, on the other hand, the unit could be started when the conditions dictate, the period for warming would be minimized and the duration of excess emissions lessened. In addition there is the potential that a higher emitting unit, such as a gas turbine, may have to be started to provide generation until the 48 hours have elapsed.

Changing the definition to condition-based versus time-based might lead one to conclude that the number of cold starts would increase and the potential for excess emissions would be greater. The number of cold starts would be the same regardless of how "cold start-up" is defined. A unit would not knowingly be started if the cold start permit conditions could not be met and, therefore, it would remain idle until the 48 hours elapsed. However, changing the definition would allow the unit to start sooner and potentially lessen the duration of excess emissions.

Because the language of the Air Construction Permit will follow into the Title V Permit, FPL proposes that the administrative change requested above also be adopted into the Title V Permit while it is being modified to accommodate the change to combined cycle operation.

Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (561) 691-2877.

Very Truly yours,

Kevin Washington/

Senior Environmental Specialist Florida Power and Light Company

Enclosures: 1

AIR CONSTRUCTION PERMIT 0710002-004-AC

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- 22. <u>Volatile Organic Compounds (VOC) Emissions:</u> The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd as determined by EPA Methods 18 or 25 A. VOC emissions (at ISO conditions) shall not exceed 2.9 lb/hr per CT to be demonstrated by initial stack test.
- 23. Sulfur Dioxide (SO?) emissions: As per Condition 8.

EXCESS EMISSIONS

- 24. Excess Emissions Requirements:
 - Excess emissions resulting from startup, shutdown, or malfunction of the combustion turbines and heat recovery steam generators shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during both "cold start-up" to or shutdowns from combined cycle operation. During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours.
 - Excess emissions from the combustion turbines resulting from startup of the *steam turbines* system shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed 12 hours per cold startup of the steam turbine system.
 - [Applicant Request (FPL estimates that, on average, there will be approximately 12 startups to combined-cycle operation per year), G.E. Combined Cycle Startup Curves Data and Rules 62-210.700, 62-4.130 F.A.C.].
- 25. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C.
- 26. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's South District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition No. 18 and 19. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 (1997 version)].