

Appendix H-1, Permit History/ID Number Changes

Florida Power & Light
Putnam Plant

[DRAFT/PROPOSED/FINAL]Permit No.: 1070014-001-AV
Facility ID No.: 1070014

Permit History (for tracking purposes):

E.U.

<u>ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue Date</u>	<u>Expiration Date</u>	<u>Extended Date</u>	<u>Revised Date(s)</u>
-001	#1 A & B Elect Gen Plant Comb Cycle	PPS PA74-01	10/16/74			
-002	#2 A & B Elect Gen Plant Comb Cycle	PPS PA74-01	10/16/74			

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.:** 31JAX540014

To: **Facility ID No.:** 1070014

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

Memorandum

TO: Chris Kirts, NED

FROM: Bruce Mitchell *BM*

DATE: April 29, 1997

SUBJECT: Completeness Review of an Application Package for a Title V Operation Permit
Florida Power & Light, Putnam Plant: 1070014-001-AV

Enclosed is an application package for a Title V operation permit that is being processed in Tallahassee. Please review the package for completeness and respond in writing by May 30, 1997, if you have any comments. Otherwise, no response is required.

It is very important to verify the compliance statement regarding the facility, since we do not have a readily effective means of determining compliance at the time the application was submitted. Please advise if you know of any emissions unit(s) that were not in compliance at that time and provide supporting information. You should have a copy on file of the original initial Title V permit application submittal. Also, please do not write on these documents.

If there are any questions, please call the project engineer, Susan DeVore, at 904/488-1344 or SC: 278-1344.

RBM/bjb

Enclosure

cc: Bob Leech

4/30/97
Susan DeVore
Reading File



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 21, 1997

RECEIVED
MAY 22 1997
BUREAU OF
AIR REGULATION

Richard Piper
Florida Power & Light Company
P.O. Box 088801
North Palm Beach, FL 33408-8801

Dear Mr. Piper:

SUBJECT: Putnam Plant ; PA74-01
Conditions of Certification

It has come to my attention that FP&L has submitted an application to Department's Division of Air Resources Management regarding the Title V permit for the Putnam plant. As I understand, most, if not all of these changes would be essentially the same as those you suggested be made in the Conditions of Certification for Putnam. In my letter of April 9th, I had indicated that in order to make those changes, since they were substantive in nature, would require that you submit a formal request for modification of the conditions. However, if the Title V permit is changed, then the provision in the Power Plant Siting Act relating to automatic modifications to the conditions for federally delegated permit changes would go into effect, obviating the need for an independent modification request. Our Air Division staff and I would like to discuss this with you further, and suggest that a phone conference may suffice. Please call and notify me or Karen Skinner of your schedule so that we can work out a mutually satisfactory time.

One other matter has come to my attention regarding the suggestions you made for revising the Putnam Conditions. This relates to #21., "Free Available Chlorine". You had proposed language which was intended to make the condition consistent with the SPDES permit. However, upon consultation with our Bureau of Water Facilities Planning & Regulation, there appears to a problem with the specific language. Again, hopefully this can be worked out via telephone.

Putnam Conditions of Certification
May 21, 1997
page two

We can be reached at the address listed above, MailStop 48 or:

904-487-0472 (phone)
904-921-7250 (FAX)
OVEN_H@DEP.STATE.FL.US (Internet)
SKINNER_K@DEP.STATE.FL.US (Internet).

Sincerely,

Hamilton S. Oven
Hamilton S. Oven, Jr.
Professional Engineer Administrator
Siting Coordination Office

HSOjr/ks

cc: Jim Alves, Hopping et al.
Joseph Kahn, Air
Craig Diltz, BWFP&R

Date: 5/8/97 9:09:05 AM
From: Karen Skinner TAL
Subject: Putnam Plant
To: Joseph Kahn TAL
CC: Hamilton Buck Oven TAL

Rich Piper is out until the 12th (and his follow-up voice mail links were busy, too). So I left a message asking him to call so we could set up a phone-meeting. Buck feels that since they are asking for a Title V change, then, if that goes through, we could do some "automatic modification" to the conditions under a fairly new clause allowing the COCs to conform to federal permit changes, rather than FP&L having to request a formal modification plus pay the fee.

FYI, we also have a couple of minor things to work out with them re NPDES requirements, so a phone call might cover two subject areas.

Date: 5/7/97 8:04:38 AM
From: Joseph Kahn TAL
Subject: Florida Power & Light/Putnam
To: Bob Leetch JAX

Bob,

It's possible you have less of the paperwork from the siting coordination group than we do. We, of course, need the current PPS conditions to incorporate into the Title V permit. From the information we have in our files, it looks like FPL and the siting group are working on revisions to the site certification to simplify the conditions and delete obsolete items. It doesn't look like the changes substantially affect the air conditions. We'll check with them and get the latest information and pass it on to you.

Joe

Date: 5/6/97 4:43:09
From: Bob Leetch JAX
Subject: RE: Florida Power & Light/Putnam, #1070014

Susan,

As you know we do not process the site certifications. I am not sure that we even have the current one in the file but I will have someone check and get back with you. Regarding the proposed changes in the certification, again it would be best that you contact the site certification group in Tallahassee directly.

Thanks

Bob

Date: 5/6/97 4:25:00 PM
From: Susan DeVore TAL
Subject: Florida Power & Light/Putnam, #1070014
To: Bob Leetch JAX
CC: Joseph Kahn TAL

Bob,

Joe Kahn and I are working on the Title V permit for FPL/Putnam and with our copy of the power plant siting certification it is hard to tell when things changed. Could you send a current site certification? We also noted that the certification is in the midst of a change of conditions. Could you tell us more?

Thank you.

Susan DeVore
Bureau of Air Regulation
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

SUNCOM: 278-1344

Enclosure 2

**U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Florida Power & Light, Putnam Plant**

EPA objects to the issuance of this permit due to the following reasons:

- (1) Exemptions from Permitting: Appendix E-1- It is our understanding that the changes to F.A.C. rules 62-213.300, and 62-213. 420-440 addressed in a preliminary draft dated June 2, 1997, were officially adopted by the State on November 13, 1997. Therefore, the State needs to revise the permit, specifically Section II, item 6 and Appendix E-1, to delete the term "exempted from permitting" and replace it with the language contained in rules 62-213.300, and 62-213. 420-440. Additionally, as agreed in previous conversations between Regional staff and the State, the State needs to remove the reference to F.A.C. rule 62-4, since it is not related to activities that may be considered "insignificant" under the title V program.
- (2) Periodic Monitoring - It is unclear how the permittee will show compliance with the heat input limitations in conditions A.1. and B.1. of the permit. The permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input limit. Since this recordkeeping will be used to determine compliance with an hourly heat input rate limitation, the permit should contain an hourly fuel usage recordkeeping requirement in order to ensure that the facility remains in compliance with the hourly heat input limit.

In addition to the above objections, our review has identified the following concerns regarding the Putnam permit:

1. Subsection D - Permit condition D.4. needs to be renumbered. It seems that several portions of the boilerplate language that were not applicable were deleted without renumbering/editing the contents of the condition.
2. The NSPS Common Conditions (Section E) should contain language similar to Conditions A.1 and B.1 of Section II of

the Martin Plant permit, i.e., "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." In addition, similar language should be added either to Condition A.1 or to a new Condition, which puts the reader on notice that the 40 CFR 60 term "owner and operator," means "permittee" in

2

this permit. In addition, the phrase "[t]o the extent allowed by law" in the Note above Condition E.1 should be deleted. It is ambiguous and not repeated in any of the other permits in this context.

BEFORE THE GOVERNOR AND CABINET
OF THE STATE OF FLORIDA

In RE:
FLORIDA POWER & LIGHT COMPANY)
PUTNAM POWER PLANT)
MODIFICATION OF CERTIFICATION)
PA 74-01F)
PUTNAM COUNTY, FLORIDA)

FINAL ORDER MODIFYING CONDITIONS
OF CERTIFICATION

On July 16, 1991, the Secretary of the Florida Department of Environmental Regulation (DER) issued a Final Order modifying Certification No. PA 74-01F for the Florida Power & Light Company (FPL) Putnam Power Plant. Those modifications were necessary to incorporate new source performance standards applicable to the heat recovery steam generators as a result of proposed refurbishments and to allow the construction activities which were necessary for those refurbishments to occur. Included within the July, 1991, modification was a requirement that FPL and DER examine the ambient monitoring program and decide whether "to upgrade the program, modify or delete it." On March 18, 1992, DER issued notice that it intended to issue a modification of the conditions of certification to allow termination of the intermittent ambient air quality monitoring program at the Putnam Power Plant.

On March 27, 1992, a notice of Intent to Issue Proposed Modification of Power Plant Certification regarding elimination of the ambient air quality monitoring program was published in the Florida Administrative Weekly and served on all parties. The notice specified that a hearing would be held if requested on or before 45 days from receipt by the parties. No hearing was requested. No person has objected to the the proposed modification.

Subsequently, on April 2, 1992, FPL submitted to DER a request to modify the conditions of certification for the Putnam Power Plant concerning the nitrogen oxides compliance test method and clarification of the nitrogen oxides emission compliance requirement for the duct burners. The modification of conditions would allow FPL to use Method 7E rather than Method 20 for the nitrogen oxides emissions compliance testing and clarify that compliance is to be determined through initial

and annual compliance testing rather than on a 30-day rolling average basis. The requested modification was submitted pursuant to Section 403.516(1)(b), F.S., and Condition 33 (formerly Condition 32) of the conditions of certification, which delegated authority to modify certain conditions of certification to the Department.

On April 2, 1992, a copy of FPL's letter to DER requesting modification of the conditions of certification regarding the nitrogen oxides emissions test method and nitrogen oxides emissions compliance requirements was served on all parties. On April 17, 1992, an Amended Notice of Intent to Issue Proposed Modification of Power Plant Certification was published in the Florida Administrative Weekly. The notice specified that a hearing would be held if requested on or before 45 days from receipt of the request for modification by the parties. No hearing was requested. No person has objected to the proposed modification.

Accordingly, in the absence of any dispute,

IT IS ORDERED:

The Department hereby modifies the conditions of certification for Putnam Power Plant as follows:

Condition No. 1 is modified to read as follows:

1.C. Heat Recovery Steam Generators:

....

(ii)(d) Nitrogen oxides emission shall not exceed 0.2 lb/mmBtu heat input when natural gas or distillate oil is combusted or 0.4 lb/mmBtu heat input when residual oil is combusted. ~~Compliance is determined on a 30-day rolling average basis.~~ The nitrogen oxides standard applies at all times, including periods of startup, shutdown, or malfunction.

...

(v) To determine compliance with the nitrogen oxides emissions limit, FPL shall conduct a performance test using EPA Reference Methods 7E and 3, (as codified in 40 CFR Part 60, Appendix A). ~~the performance test described in 40 CFR § 60.49b(f) (July 17, 1990 Edition) and required under 40 CFR § 60.8 (July 17, 1990 Edition) using the nitrogen oxides and oxygen measurement procedures in 40 CFR Part 60 Appendix A, Method 20 (July 17, 1990 Edition).~~ The initial compliance test shall be performed within 60 days after achieving the maximum production rate for the HRSGs, but not later than 180 days after initial startup. An annual compliance test shall be performed at least once during each federal fiscal year (October 1 - September 30).

Thirty (30) days prior to the initial compliance test and fifteen (15) days prior to each annual compliance test, notice shall be provided to the Northeast District Office. The results of each test shall be submitted to the Northeast District Office within 45 days of test completion.

Conditions No. 5 is deleted and subsequent conditions are renumbered.

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department of Environmental Regulation in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date that the Final Order is filed with the clerk of the Department of Environmental Regulation.

DONE AND ENTERED THIS 28 day of May, 1992,
in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Carol M. Browner
CAROL M. BROWNER
Secretary

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Randy Carter 5-29-92
Clerk Date

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Telephone: (904) 488-9730

CERTIFICATE OF SERVICE

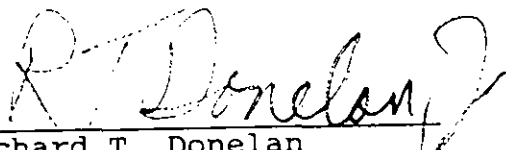
I HEREBY CERTIFY that copies of the foregoing Final Order Modifying Conditions of Certification for Florida Power & Light Company's Putnam Power Plant were furnished to the following by United States Mail, postage prepaid, this 7th day of May, 1992:

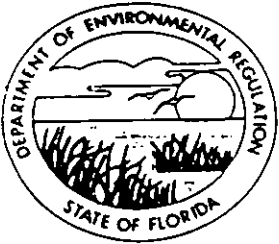
Steven Pfeiffer, General Counsel
Department of Community Affairs
The Rhyne Building, Room 138
2740 Centerview Drive
Tallahassee, FL 32399-2100

Susan F. Clark, General Counsel
Florida Public Service Commission
Fletcher Building
101 E. Gaines Street
Tallahassee, FL 32399-0850

John Thompson, Chairman
Putnam County Board of
County Commissioners
Post Office Box 758
Palatka, FL 32178

William H. Green
Angela R. Morrison
Hopping, Boyd Green
and Sams
123 S. Calhoun Street
Post Office Box 6526
Tallahassee, FL 32314


Richard T. Donelan
Assistant General Counsel
State of Florida Department of
Environmental Regulation
Twin Towers Office Building
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Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

June 4, 1992

Mr. Steven Pfeiffer, General Counsel
Department of Community Affairs
The Rhyne Building, Room 138
2740 Centerview Drive
Tallahassee, FL 32399-2100

RE: Final Order Modifying Conditions of Certification for
Putnam Power Plant #PA 74-01F

Dear Mr. Pfeiffer:

Enclosed is a replacement page for the Final Order
Modifying Conditions of Certification for Putnam Power Plant
#PA 74-01F that was mailed to you on May 29, 1992.

A typographical error was discovered on page 2 under
Conditions No. 1 (v): "EPA Reference Methods 7E and 3" should
read: "EPA Reference Methods 7E and 3A".

Sincerely,

Hamilton S. Oven, Jr., P.E.
Administrator
Siting Coordination Office

HSO/ah

Enc.



RECEIVED

MAR 24 1997

BUREAU OF
AIR REGULATION

March 21, 1997

Hamilton S. Oven, Jr.
Professional Engineer Administrator
Siting Coordination Office
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: **FPL Putnam Plant ; PA74-01**
Conditions of Certification

Buck
Dear Mr. ~~Oven~~:

This correspondence is in response to your letter of February 24, 1997 regarding the revised Conditions of Certification for the Putnam facility. In our review of the revised conditions, several items were apparent which could be addressed for purpose of clarity:

Page 2, item iv: The sentence that begins "The initial performance test shall be performed...." can be stricken entirely, as this testing was completed years ago.

Page 3, item 2: The sentence that begins "Stacks with a height of...." can be deleted since the Ambient Air Sampling required in Condition 5 has been eliminated.

Page 4, item 3: "Sampling Platform - The permittee shall install...." As above, this condition was completed several years ago, so this language can be stricken.

Page 4, item 5: "Ambient Air Samplers" - The samplers referenced in the condition were removed several years ago, with concurrence from the Department. This condition can be deleted.

Page 4, item 6: "Water Effluents" The parameter of copper has been omitted from the sentence "Iron, chlorine, nickel and zinc shall...." It should read "Iron, chlorine, copper, nickel and zinc shall...."

Page 4, item 7: "Monitoring" - The first sentence lists the waste streams for which monitoring is required. The North Fuel Oil Tank Farm (OSN 004) was deleted as an outfall in the December 15, 1995 modification. This language change was not addressed in the "Final Order". This "correction should be made now.

Page 4, item 7: "Monitoring" - The final sentence of this section requires quarterly submittal of surface water monitoring reports to the DEP's Northeast District Office. The current requirement in the SPDES permit, as a result of delegation of the NPDES program on May 1, 1995, is monthly reporting through DEP-Tallahassee. This section should be updated.

Page 5, Table of Effluent Characteristics, Limitation and Monitoring - In previous editions of the Conditions of Certification, this table has contained a fourth heading - Waste Stream. It is necessary to have this column since it is not clear which Serial Discharge Streams are to be monitored for the listed effluent characteristic. Additionally, the limitation on combined flow to the St. Johns River from the cooling tower and the chemical waste treatment system of 2,200 gpm has not been a part of previous permits. The table should read:

<u>Effluent Characteristics</u>	<u>Limitation</u>	<u>Monitoring</u>	<u>Waste Stream</u>
* Flow	To existing plant discharge area. Cooling tower blowdown shall be minimized to the degree allowed by best engineering practice.	Continuous recorders or pump logs	Cooling tower blowdown, Physical / Chemical Treatment System, West EP Pond
* Temperature	Not to exceed 98 F. at the P.O.D. and not to exceed 92 F. or 5 F. above ambient at the boundary of a 3-dimensional zone of mixing described by a cylinder of 50 meters radius running horizontally from the P.O.D. and which extends vertically to the river surface and river bottom.	Continuous (recorder or pump logs) at any point between the blowdown discharge at the cooling tower and the P.O.D. of cooling water into the river.	Cooling tower blowdown
* Phosphate	50 ppm	Weekly	Physical Chemical Treatment System
* Dissolved solids	6000 ppm	Daily	Cooling tower blowdown, Physical Chemical Treatment System, West EP Pond

* pH	6.0 - 8.5	Daily	Cooling tower blowdown, Physical Chemical Treatment System, West EP Pond
*Floating solids and visible foam	None visible	Daily	Cooling tower blowdown, Physical Chemical Treatment system

Page 8, item 22: "Free Available Chlorine" - Much of this section should be deleted since it has long ago been completed. The language of the remainder should be changed to reflect the requirements of the NPDES permit concerning free available chlorine. The section should read:

"Chlorine concentration monitoring shall be conducted two times per week, during the period of maximum expected residual, at any point between the exit from the cooling tower and the P.O.D. of cooling water in the river. If the grab sample for total residual chlorine (TRC) taken prior to discharge from the cooling tower indicates that no TRC is present, sampling for FAC is not required. If FAC is present, multiple grabs shall be conducted hourly until it can no longer be detected. When TRC measures "less than detectable" and the cooling tower blowdown has been established, it is not required to sample for TRC again until a chlorination of the cooling tower water has been performed."

The statement requiring reporting of monitoring results should be updated to reflect the delegation of the NPDES program to the FDEP from EPA.

With respect to the History Notes section, in general the dates provided appear to be correct. I would add that the date of 5/20/80 should be inserted as the date for the fourth change to the Conditions of Certification. FPL also has archived many of our older files, and thus some of this information is not easily accessible.

I would be pleased to discuss this further with you, or with other members of the Department if you have any questions.

Very truly yours,



Rich Piper
Senior Environmental Specialist
Florida Power & Light Company

cc:

Clair Fancy
Craig Diltz

DARM
DWF

Date: 3/24/97 11:13:24 AM
From: Karen Skinner TAL
Subject: Putnam Power Plant
To: Clair Fancy TAL
To: Craig Diltz TAL
CC: Hamilton Buck Oven TAL
CC: Chip Collette TAL

Rich Piper from FP&L cc:ed you on a letter he sent to Buck/us re the proposed update/cleanup to the conditions we are proposing (Chip, I'll send you a copy through InterOffice mail). In that I don't think you saw the final draft we sent him, I am attaching it to this E-mail, so Rich's comments will make better sense. I suspect we will have to do a formal modification rather than a "technical reversion" to make all the changes he suggested -- many of the deletions and so forth can be construed as substantive versus our editorial changes, although I doubt they will be particularly objectionable.

State of Florida Department of Environmental Protection
Florida Power & Light Company, Putnam Plant Palatka Station
Case No. PA-74-01
CONDITIONS OF CERTIFICATION

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State of Florida Department of Environmental Protection
Florida Power & Light Company, Putnam Plant Palatka Station
Case No. PA 74-01
CONDITIONS OF CERTIFICATION

The permittee shall comply with the following conditions of certification:

1. Fuel

A. Auxiliary Boilers:

Fuel consumed should not contain more than 0.7% sulfur nor should stack emissions exceed rule 62-296, F.A.W. chapter 17-2-600(6)

B. Combustion Turbines:

(i) Only fuel oil with not more than 0.7 percent sulfur content or natural gas may be used.

(ii) Opacity shall not exceed 20 percent opacity except for one 6-minute period per hour. Opacity shall not exceed 27 percent.

C. Heat Recovery Steam Generators

(i) Only the following fuels may be fired: (a) natural gas or (b) fuel oil with not more than 0.7 percent sulfur content by weight.

(ii) Emissions shall not exceed the following limitations

(a) Opacity emissions shall not exceed 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

(b) Excess opacity resulting from malfunctions is permitted provided that best operational practice to minimize emissions are adhered to and the duration of excess opacity shall not exceed two hours in any 24-hour period unless specifically authorized by the Department for long term malfunctions.

(c) Excess opacity resulting from startup or shutdown is permitted, provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall not exceed two hours in any 24-hour period unless specifically authorized by the Department for long term malfunctions.

(d) Nitrogen oxides emissions shall not exceed 0.2 lb/mmBtu heat input when distillate oil is combusted or 0.4 lb/mmBtu heat input when residual oil is combusted. The nitrogen oxides emissions shall not exceed these limits at all times, including periods of startup, shutdown, or malfunction.

(iii) To determine compliance with the emissions limit for sulfur dioxide, receipts for fuel oil shall be maintained for each shipment which certify that the oil complies with the specifications for fuel oil No. 2, as defined by the American Society of Testing and Materials in ASTM D396-78, standard specification for Fuel Oil No. 2.

Quarterly reports based on such receipts shall be submitted to the Northeast District Office certify containing no more than 0.5 weight percent sulfur or oil that has a sulfur dioxide emission rate eq 0.5 lb/mmBtu heat input and which meets the ASTM specifications was combusted in the duct bur preceding quarter. All quarterly reports shall be postmarked by the 30th day following the end of quarter.

(iv) To determine compliance with the opacity limit, Method 9 shall be used as requi s. 60.8 (July 1, 1990) Edition). The initial performance test shall be performed within 60 days afte production rate for the HRSGs, but not later than 180 days after initial startup. Annual complianc performed at least once during each federal fiscal year (October 1 - September 30). Thirty (30) d compliance test and fifteen (15) days prior to each annual compliance test, notice shall be provid District Office. The results of each test shall be submitted to the Northeast District Office within 45 completion. Other Department-approved methods may be used for compliance testing after prior

(v) To determine compliance with the nitrogen oxides emissions limit, FPL shall con test using EPA Reference Methods 7E and 3A, gas codified in 40 CFR part 60 Appendix A). The i shall be performed within 60 days after achieving the maximum production rate for the HRSGs, bu days after initial startup. Annual compliance tests shall be performed at least once during each fe (October 1-September 30). Thirty (30) days prior to the initial compliance test and fifteen (15) da annual compliance test, notice shall be provided to the Northeast District Office. The results of ea submitted to the Northeast District Office within 45 days of test completion.

(vi) FPL shall maintain records of opacity and must submit excess emissions report quarter during which there are excess emissions from the HRSGs. If there are no excess emissio quarter, FPL shall submit a report stating that no excess emissions occurred during the quarterly r quarterly reports shall be submitted to the Department's Northeast District Office.

(vii) FPL shall satisfy any applicable nitrogen oxides emissions records maintenanc forth in 40 CFR s. 60.49b(g) (July 1, 1990 Edition).

(viii) All records required under this condition shall be maintained by FPL for a per following the date of such record.

D. Wind Restrictions and Monitoring

(i) Wind Restriction

The permittee will burn fuel oil containing no more than 0.50% sulfur when sustaine miles per hour for any continuous period of three hours or longer.

(ii) Wind Monitoring

The permittee shall measure wind velocity and wind direction at hourly intervals in t only for those hours during which combustion turbines at either of the combined cycle units of the with greater than 0.5 percent sulfur content. Wind data for the hours during which oil with greater content was burned each month, or, if applicable, a statement that no oil with greater than 0.5 per burned during that month, shall be reported to the Northeast District Office of the Department by t

month following each reporting period. Wind velocity and direction measurements required by this made in accordance with recognized methods and procedures.

2. Stack Height

Minimum stack heights for the paired combined cycle unit exhaust stacks shall be 71 feet and with a height of at least 150 feet shall be constructed if monitoring data per Condition 5 indicates have been violated.

Wind Restriction

~~The permittee will burn fuel oil containing no more than 0.50% sulfur when sustained winds hour for any continuous period of three hours or longer.~~

Wind Monitoring

~~The permittee shall measure wind velocity and wind direction at hourly intervals in the plant those hours during which combustion turbines at either of the combined cycle units of the plant or greater than 0.5 percent sulfur content. Wind data for the hours during which oil with greater than content was burned each month, or, if applicable, a statement that no oil with greater than 0.5 per burned during that month, shall be reported to the Northeast District Office of the Department by the month following each reporting period. Wind velocity and direction measurements required by this made in accordance with recognized methods and procedures.~~

3. Sampling Platform

The permittee shall install a sampling platform on one stack or shall provide sampling ports access facilities as may be prescribed by the Department in performing stack sampling.

4. Continuous Monitoring Devices

The permittee shall install and operate continuous monitoring devices on one of the paired the following: Opacity, Nitrogen Oxides. Records of such monitoring shall be available for inspection.

5. Ambient Air Samplers

The permittee shall install and operate continuously for a 24-hour period every six days, two West-Gaeke, monitoring devices for sulfur dioxide and two suspended air particulate sampling devices. These ambient air samples will be determined by consultation with the Chief, Bureau of Air Monitoring the Department. The data collected will be reported to the Chief, Bureau of Air Monitoring and As by the 45th day following the end of the reporting period, utilizing the SAROAD or other mutually and ~~DEP DER~~ shall examine the ambient monitoring program and decide by 1/10/92 to upgrade it or delete it.

6. Water Effluents

Water effluents shall conform to the limitations of Chapter 62-302, F.A.C., including but not

contained in Paragraph 7 below. Iron, chlorine, nickel and zinc shall meet the water quality standard Administrative Code Rule 62-302, at the boundary of a mixing zone defined to be an area that is 60 and 90 meters in width, taking into account the particular shoreline configuration, as shown on Figure 7.

7. Monitoring

Monitoring shall be conducted at the frequencies listed below on the following waste streams applicable: Cooling Tower Blowdown, West EP Pond, North Fuel Oil Tank Farm, waste streams to St. Johns River. Cooling Tower Blowdown and Physical Chemical Treatment System discharge shall be monitored simultaneously or separately through the same pipe. Monitoring reports shall be submitted quarterly to the Department's Director of the Northeast District:

<u>Effluent Characteristics</u>	<u>Limitation</u>	<u>Monitoring</u>
* Flow	To existing plant discharge area. Cooling tower blowdown shall be minimized to the degree allowed by best engineering practice; furthermore, the combined flow to the St. Johns River from the cooling tower and the chemical waste treatment system shall not exceed 2,200 gpm.	Continuous recorders or pump logs
* Temperature	Not to exceed 98°F. at the P.O.D. and not to exceed 92°F. or 5° F. above ambient at the boundary of a 3-dimensional zone of mixing described by a cylinder of 50 meters radius running horizontally from the P.O.D. and which extends vertically to the river surface and river bottom.	Continuous (recorder or pump logs) at any point between the blowdown discharge at the cooling tower and the P.O.D. of cooling water into the river.
* Phosphate to Blowdown tank	50 ppm	Weekly
* Dissolved solids	6000 ppm	Daily
* pH	6.0-8.5	Daily

* Floating solids
and visible foam

None visible

None

8. Change in Discharge

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant identified in this certification more frequently than or in excess of that authorized shall constitute a violation of the certification. Any solids, sludges, filter cake, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner that prevents any pollutants from such materials from entering waters of the state.

9. Noncompliance Notification:

If, for any reason, the permittee does not comply with or will be unable to comply with any condition in this certification, the permittee shall provide prompt notification to the Director of the Northeast District of the Department of the Environment by telecommunication sent no later than 3:00 p.m. of the next normal work day following the occurrence of noncompliance, and shall submit the following information in writing, within ninety-six (96) hours of becoming aware of such condition:

A. A description of the discharge and cause of noncompliance; and

B. The period of noncompliance, including exact dates and times; or, if not corrected, the period for which noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent the noncomplying discharge.

10. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the conditions of this certification.

11. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact resulting from any limitation specified in this certification, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.

12. Bypassing

Any diversion or bypass of facilities necessary to maintain compliance with the terms and conditions of this certification is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage from excessive storm drainage or runoff would damage any facilities necessary for compliance with the certification, the permittee shall promptly notify the Director of the Northeast District of the Department of the Environment of each such bypass in accordance with the procedure contained in condition 9 of this certification.

13. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or c wastewaters shall be disposed of in a manner such as to prevent any pollutant from such material waters of the state.

14. Right of Entry

The permittee shall allow the Secretary of the Florida Department of Environmental Protect representatives, upon the presentation of credentials:

A. a. To enter upon the permittee's premises where an effluent source is located or in whi required to be kept under terms and conditions of this certification; and

B. b. To have access to and copy any records required to be kept under the conditions of and

C. c. To inspect any monitoring equipment or monitoring method required in this certificati any discharge of pollutants.

15. Revocation or Suspension

After notice and opportunity for a hearing, this certification may be suspended, or revoked during its term for cause including, but not limited to, the provisions of s. 403.512, Chapter 403, F failure to comply with the terms and conditions of the certification.

16. New Pollutant Standards

If an effluent or emission standard or prohibition (including any schedule of compliance sp effluent or emission standard or prohibition) is established for a pollutant which is present in this c such standard or prohibition is more stringent than any limitation for such pollutant in this certifica shall be revised in accordance with the new effluent or emission standard or prohibition and the p

17. Civil and Criminal Liability

Nothing in this certification shall be construed to relieve the permittee from civil or criminal non-compliance with any condition of this certification, applicable rules or regulation of the Depart 403, Florida Statutes.

18. Legal Action

Nothing in this certification shall be construed to preclude the institution of any legal action permittee from the responsibilities, requirement, liabilities, or penalties established pursuant of an Statutes, or Regulation, including Department rules and regulations promulgated by the Departme 403, F.S.

19. Property Rights

The issuance of this certification does not convey any property rights in either real or personal property, nor does it authorize any injury to public or private property or any invasion of any infringement of Federal, State or local laws or regulations

20. Severability

The provisions of this certification are severable, and if any provision of this certification on any provision of this certification to any circumstances is held invalid, the application of such provisions to any circumstances, and the remainder of this certification shall not be affected thereby.

21. Debris Discharge

No debris shall be discharged to waters of the State from the intake screens with the exception of those necessary for the operation of the intake screens. Additionally, the Permittee shall, beginning no later than July 1, 1978, undertake a study to evaluate the viability of nekton collected on the intake screens to ambient temperature waters and shall submit a report no later than November 1, 1979.

22. Free Available Chlorine

After December 31, 1976 or six months after commencement of boiler operations, whichever is later, the free available chlorine shall not exceed an average concentration of 0.2 mg/l and a maximum concentration of one two-hour period a day. Chlorine concentration monitoring shall be conducted during the period of maximum expected residual, at any point between the exit from the cooling tower to the river. The results of such a monitoring shall be reported, quarterly to the North Carolina Department of Environment and Natural Resources. Additionally, a study shall be instituted to evaluate all practicable methods to reduce total chlorine levels, including, but not necessarily limited to, (i) ~~(1)~~ minimization of chlorine addition commensurate with requirements, (ii) ~~(2)~~ reduction of flow during chlorination, and (iii) ~~(3)~~ discontinuation of blowdown chlorination and subsequent periods of high concentration. Results of this study, including facilities and methods propose to reduce total chlorine residuals shall be submitted within twenty-four months of plant operation. Subsequently, chlorination procedures to reduce total chlorine residual shall be implemented to the extent practicable.

23. Biocide Discharge

Any biocide discharge from any point source shall comply with the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (U.S.C. 136 et. seq.) and the use of such pesticide shall be consistent with the labeling.

24. Polychlorinated Biphenyl Compounds

There shall be no release from containment devices or structures of polychlorinated biphenyl compounds into the environment.

25. Turbid Waters

There shall be no surface discharge of turbid waters to waters of the State from the spoil disposal system. Any spoil excavated during construction or maintenance dredging shall be deposited on a berm or other control device shall be constructed around the spoil disposal area to insure against erosion of excavated material which may cause turbidity in excess of 29 Nephelometric Jackson Turbidity background in waters of the State.

26. Barge Slip

The Barge Slip shall be of a sheet pile type construction with a poured concrete cap. Riprap shall be placed along the river bank adjacent to the barge slip to prevent erosion due to removal of natural vegetation. Oil shall be removed from the barge slip prior to the departure of any barge. Such oil shall be disposed of by a treatment system.

27. Utilities Tunnel

Construction of the utilities tunnel under U.S. 17 shall be expedited to occur in a minimal amount of time. Construction shall be performed in accordance with the standards of the Florida Department of Transportation. Close coordination with:

Mr. C. A. Benedict
District Engineer Fifth Division
Florida Department of Transportation
Post Office Box 47
Deland, Florida 32720

and with:

Mr. J. A. Crookshank, Jr.
Maintenance Engineer, Putnam County
Post Office Drawer "X"
St. Augustine, Florida 32084

28. Stormwater Runoff

During construction and plant operation necessary measures shall be employed to settle, filter, and divert silt-containing pollutant-loaded stormwater runoff to prevent contamination of water of the State. Measures may include sediment traps, barriers and use of berms or vegetation. Exposed or disturbed soils shall be stabilized as possible to minimize silt and sediment runoff into waters of the State.

29. Turbidity Control

Turbidity control shall be installed prior to any construction or maintenance dredging to insure that turbidity in State waters is not increased more than 29 Nephelometric Jackson Turbidity units.

30. Groundwater Monitoring Plan

The Groundwater Monitoring Plan for the Putnam Power Plant, approved on February 25, 1997, by the Department, is incorporated by reference.

Copies of any subsequent revisions to the Groundwater Monitoring Plan which are approved by the Department's Northeast District Office shall be filed with the Department's Siting Coordination Office to the parties hereto by certified mail, and, in the absence of a request for a hearing thereon with such revision, the revisions shall become part of this certification without the need for further filing fees.

31. Review of Site Certification

This certification shall be final unless revoked or suspended pursuant to law. Five years from issuance of any National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972, for the Combined Cycle Units, the Department shall review monitoring data that have been submitted to it during the preceding five year period, for the purpose of determining the extent of the permittee's compliance with the conditions of this certification and the environmental conditions at the facility. The Department shall submit the results of its review and recommendations to the Permittee of record in this certification proceeding.

32. Monitoring Program Review

The results of the air and water monitoring programs will be reviewed by the Department and Florida Power & Light Company at the end of each year of operation to determine the necessity and/or extent of such monitoring methods and procedures utilized in the monitoring program shall be approved by the Department annually by the Department and Florida Power & Light Company, and may be modified by agreement of record in this certification proceeding.

33. Modification of Conditions

The conditions of this certification may be modified in the following manner:

A. The Board, pursuant to 403.516(1), F.S., hereby delegates to the Secretary the authority to grant notice and opportunity for hearing, any conditions pertaining to air and water monitoring and sampling methods and exceptions to water quality standards.

B. Conformance With Federally Delegated Permits

This certification shall be modified to conform to any subsequent amendments, modifications or conditions by DEP under a federally delegated or approved program to any separately issued Prevention of Air Pollution (PSD) permit, Title V Air Permit, or National Pollutant Discharge Elimination System (NPDES) permit for the facility. FPL shall send each party to the certification proceeding (at the parties last known address) copies of notice requests submitted by FPL for modifications or revocations of the above-listed permits if the request involves a relief mechanism (e.g., mixing zone, variance, etc.) from the standards, a relaxation of conditions included in the permit due to state permitting requirements, or less restrictive air emission limitations in the air permits. DEP shall notify all parties to the certification of its intent to modify conditions under this section prior to taking final agency action.

C. All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

----- History Notes -----

Certification issued 10/16/74 by Pollution Control Board
Modified 5/18/76, Governor Graham
Modified 9/26/78, Secretary Landers/parties/stipulation
Modified 8/20/80
Modified 3/15/84, Governor Graham
May have been modified in 1985 -- researching Archives
Modified 4/15/86, _____?; -- researching Archives
Modified 7/16/91, Secretary Browner
Modified 12/14/95, Secretary Wetherell

State of Florida Department of Environmental Regulation
Florida Power & Light Company, Palatka Station
Case No. PPS-74-01

Putnam Power Plant

CONDITIONS OF CERTIFICATION

The permittee shall comply with the following conditions of certification:

1. Fuel consumed should not contain more than 0.7% sulfur nor should stack emissions exceed those specified in Florida Administrative Code Rule 17-2.600(6).

2. Stack Height: Minimum stack heights shall be 71 feet above grade. Stacks with a height of at least 150 feet shall be constructed if monitoring data per Condition 5 indicate ambient air standards would be violated.

Wind Restriction: The permittee will burn fuel oil containing no more than 0.50% sulfur when sustained winds exceed 20 miles per hour for any continuous period of three hours or longer.

Wind Monitoring: The permittee shall measure wind velocity and wind direction at hourly intervals in the plant vicinity only for those hours during which either unit of the plant operates on oil. Wind data for the hours during which oil was burned during each month, or, if applicable, a statement that no oil was burned during that month, shall be reported to the Northeast District Manager of the Department by the last day of each month following the reporting period. Wind velocity

and direction measurements required by this paragraph shall be made in accordance with recognized methods and procedures.

3. The permittee shall install a sampling platform on one stack or shall provide sampling ports and such temporary access facilities as may be prescribed by the Department in performing stack sampling.

4. The permittee shall install and operate continuous monitoring devices on one of the paired exhaust stacks for the following: Opacity, Nitrogen Oxides. Records of such monitoring shall be available for inspection.

5. The permittee shall install and operate continuously for a 24-hour period every six days two ambient air, West-Gaeke, monitoring devices for sulfur dioxide and two suspended particulate sampling devices. The location of these ambient air samplers shall be determined by consultation with the Northeast District Manager of the Department. The data collected will be reported to the Northeast District Manager quarterly by the last day of each month following the reporting period, utilizing SAROAD or other mutually acceptable format.

6. Water effluents shall conform to the limitations of Chapter 17-3, F.A.C., including but not limited to those contained in Paragraph 7 below.

7. The following parameters shall be reported monthly to the Northeast District Manager:

Effluent CharacteristicsLimitationsMonitoring

* Flow	To existing plant discharge area. Cooling tower blowdown shall be minimized to the degree allowed by best engineering practice; furthermore, the combined flow to the St. Johns River from the cooling tower and the chemical waste treatment system shall not exceed 2,200 gpm.	Continuous recorders or pump logs
* Temperature	Not to exceed 98°F. at the P.O.D. and not to exceed 92°F. or 5° F. above ambient at the boundary of a 3-dimensional zone of mixing described by a cylinder of 50 meters radius running horizontally from the P.O.D. and which extends vertically to the river surface and river bottom.	Continuous (recorder or logs) at any point between the blowdown discharge at the cooling tower and the P.O.D. of cooling water into the river.
* Phosphate to Blowdown tank	50 ppm	Weekly
* Dissolved solids	6000 ppm	Daily
* pH	6.0 - 8.5	Daily
* Floating solids and visible foam	None visible	None

8. Change in Discharge

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant identified in this certification more frequently than or at a level in excess of that authorized shall constitute a violation of the certification. Any antici-

pated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants or expansion in steam generating capacity must be reported by submission of a new application.

9. Noncompliance Notification:

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall provide prompt notification to the Northeast District Manager of the Department by telecommunication sent no later than 3:00 p.m. of the next normal work day following the occurrence of such noncompliance, and shall submit the following information in writing, within ninety-six (96) hours of becoming aware of such conditions:

A. A description of the discharge and cause of noncompliance; and

B. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

10. Facilities Operation:

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification.

11. Adverse Impact:

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

12. Bypassing:

Any diversion or bypass of facilities necessary to maintain compliance with the terms and conditions of this certification is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the conditions of this certification. The permittee shall promptly notify the Northeast District Manager of the Department of each such diversion or bypass in accordance with the procedure contained in condition #9 of this certification.

13. Removed Substances:

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state.

14. Right of Entry:

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under terms and conditions of this permit; and
- b. To have access to and copy any records required to be kept under the conditions of this certification; and
- c. To inspect any monitoring equipment or monitoring method required in this certification and to sample any discharge of pollutants.

15. Revocation or Suspension:

After notice and opportunity for a hearing, this certification may be suspended, or revoked in whole or in part during its term for cause including, but not limited to, the provisions of § 403.512, Chapter 403, Florida Statutes, or for failure to comply with the terms and conditions of the certification.

16. New Pollutant Standards:

If an effluent or emission standard or prohibition (including any schedule of compliance specified in such effluent or emission standard or prohibition) is established for a pollutant which is present in this certification and such standard or prohibition is more stringent than any limitation for such pollutant in this certification, this certification shall be revised in accordance with the new effluent or emission standard or prohibition and the permittee is so notified.

17. Civil and Criminal Liability:

Nothing in this certification shall be construed to relieve the permittee from civil or criminal penalties for non-compliance with any condition of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes.

18. Nothing in this certification shall be construed to preclude the institution of any legal action or relieve the permittee from the responsibilities, requirements, liabilities, or penalties established pursuant to any applicable State Statutes, or Regulation, including Department rules and regulations promulgated by the Department pursuant to Chapter 403, F.S.

19. Property Rights:

The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

20. Severability:

The provisions of this certification are severable, and if any provision of this certification or the application or any provision of this certification to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this certification shall not be affected thereby.

21. No debris shall be discharged to waters of the State from the intake screens with the exception of viable nekton. Additionally, the Permittee shall, beginning no later than July 1, 1978, undertake a study to evaluate methods of returning viable nekton collected on the intake screens to ambient temperature waters and shall submit a report presenting results no later than November 1, 1979.

22. After December 31, 1976 or six months after commencement of boiler operations, whichever occurs later, free available chlorine shall not exceed an average concentration of 0.2 mg/l and a maximum concentration of 0.5 mg/l during a maximum of one two-hour period a day. Chlorine concentration monitoring shall be conducted two times per week, during the period of maximum expected residual, at any point between the exit from the cooling tower and the P.O.D. of cooling water in the river. The results of such a monitoring shall be reported quarterly to the Northeast District Manager. Additionally, a study shall be instituted to evaluate all practicable methods to reduce total chlorine (free and combined) levels, including, but not necessarily limited to, (1) minimization of chlorine addition commensurate with control requirements, (2) reduction of flow during chlorination, and (3) discontinuation of blowdown during chlorination and subsequent periods of high concentration. Results of this study, including facilities and/or methods proposed to reduce total chlorine resi-

duals, shall be submitted within twenty-four months of commencement of plant operation. Subsequently, chlorination procedures to reduce total chlorine residuals shall be implemented to the extent practicable.

23. Any biocide discharge from any point source shall comply with the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 U.S.C. 136 et. seq.) and the use of such pesticide shall be in a manner consistent with the labeling.

24. There shall be no release from containment devices or structures of polychlorinated biphenyl compounds to the environment.

25. There shall be no surface discharge of turbid waters to waters of the State from the spoil disposal/^o borrow pit system. Any spoil excavated during construction or maintenance dredging shall be deposited on an upland area. A berm or other control device shall be constructed around the spoil disposal area to insure against spillage or discharge of excavated material which may cause turbidity in excess of 50 Jackson Turbidity Units above background in waters of the State.

26. The Barge Slip shall be of a sheet pile type construction with a poured concrete cap. Riprap shall be placed on the river bank adjacent to the barge slip to prevent erosion due to removal of natural vegetation. Spilled oil shall be removed from the barge slip prior to the departure of any barge. Such oil shall be disposed of by the plant's oil treatment system.

27. Construction of the utilities tunnel under U.S. 17 shall be expedited to occur in a minimal amount of time. Such construction shall be performed in accordance with the standards of the Florida Department of Transportation and in close coordination with:

Mr. C. A. Benedict
District Engineer, Fifth Division
Florida Department of Transportation
Post Office Box 47
DeLand, Florida 32720

and with:

Mr. J. A. Crookshank, Jr.
Maintenance Engineer, Putnam County
Post Office Drawer "X"
St. Augustine, Florida 32084

28. During construction and plant operation necessary measures shall be employed to settle, filter or absorb silt-containing or pollutant-loaded stormwater runoff to prevent contamination of waters of the State. Such measures may include sediment traps, barriers and use of berms or vegetation. Exposed or disturbed soils shall be sodded as soon as possible to minimize silt and sediment runoff into waters of the State.

29. Turbidity control shall be installed prior to any construction or maintenance dredging to insure that turbidity of State waters is not increased more than 50 Jackson Turbidity Units.

30. Review of Site Certification:

This certification shall be final unless revoked or suspended pursuant to law. Five years from the date of issuance of any National Pollutant Discharge Elimination System Permit issued

pursuant to the Federal Water Pollution Control Act Amendments of 1972, for the Combined Cycle Units, the Department shall review all monitoring data that have been submitted to it during the preceding five year period, for the purpose of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the Permittee and all parties of record in this certification proceeding.

31. Monitoring Program Review:

The results of the air and water monitoring programs will be reviewed by the Department and Florida Power & Light Company at the end of each year of operation to determine the necessity and/or extent of continuation. The methods and procedures utilized in the monitoring program shall be approved by the Department and also be reviewed annually by the Department and Florida Power & Light Company, and may be modified by agreement of all parties of record in this certification proceeding.

32. Modification of Conditions:

The conditions of this certification may be modified in the following manner:

A. The Board, pursuant to 403.516(1), F.S., hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to air and water monitoring and sampling, variances, or exceptions to water quality standards.

B. All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

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FLORIDA POWER & LIGHT COMPANY
PUTNAM PLANT
CONDITIONS OF CERTIFICATION
Includes Modifications in Effect 5/28/92

RECEIVED
DEC 27 1995
BUREAU OF
AIR REGULATION

[Dates in left margin
indicate language was
modified subsequent to
10/16/74]

The permittee shall comply with the following conditions of certification:

5/20/80
3/15/84
7/16/91
5/28/92

1. A. Auxiliary Boilers:

Fuel consumed shall not contain more than 0.7% sulfur nor shall stack emissions exceed those specified in Chapter 17-2.600(6).

B. Combustion Turbines:

(i) Only fuel oil with not more than 0.7 percent sulfur content or natural gas may be fired:

(ii) Visible emissions shall not exceed 20 percent opacity except for one 6-minute period per hour during which opacity shall not exceed 27 percent.

C. Heat Recovery Steam Generators:

(i) Only the following fuels may be fired:
(a) natural gas or (b) fuel oil with not more than 0.5 percent sulfur content by weight.

(ii) Emissions shall not exceed the following limitations:

(a) Visible emissions shall not exceed 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

(b) Excess opacity resulting from malfunctions is permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess opacity shall be minimized, but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

(c) Excess opacity resulting from startup or shutdown is permitted, provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

(d) Nitrogen oxides emissions shall not exceed 0.2 lb/mmBtu heat input when natural gas or distillate oil is combusted or 0.4 lb/mmBtu heat input when residual oil is combusted. The nitrogen oxides standard applies at all times, including periods of startup, shutdown, or malfunction.

(e) Within 90 days after this modification becomes effective, FPL shall submit to the DER Siting Coordination Office for review and approval a report outlining best operational practices to be implemented at the Putnam Plant to minimize excess opacity emissions as referenced in conditions ii (a) and (b).

(iii) To determine compliance with the emissions limit for sulfur dioxide, receipts from the fuel supplier shall be maintained for each shipment which certify that the oil complies with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils. Quarterly reports based on such receipts shall be submitted to the Northeast District Office certifying that only oil containing no more than 0.5 weight percent sulfur or oil that has a sulfur dioxide emission rate equal to or less than 0.5 lb/mmBtu heat input and which meets the ASTM specifications was combusted in the duct burners during the preceding quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(iv) To determine compliance with the opacity limits, Method 9 shall be used as required under 40 CFR § 60.8 (July 1, 1990 Edition). The initial performance test shall be performed within 60 days after achieving

the maximum production rate for the HRSGs, but not later than 180 days after initial startup. Annual compliance tests shall be performed at least once during each federal fiscal year (October 1 - September 30). Thirty (30) days prior to the initial compliance test and fifteen (15) days prior to each annual compliance test, notice shall be provided to the Northeast District Office. The results of each test shall be submitted to the Northeast District Office within 45 days of test completion. Other Department approved methods may be used for compliance testing after prior Department approval.

(v) To determine compliance with the nitrogen oxides emissions limit, FPL shall conduct a performance test using EPA Reference Methods 7E and 3A, (as codified in 40 CFR Part 60, Appendix A). The initial compliance test shall be performed within 60 days after achieving the maximum production rate for the HRSGs, but not later than 180 days after initial startup. Annual compliance test shall be performed at least once during each federal fiscal year (October 1 - September 30). Thirty (30) days prior to the initial compliance test and fifteen (15) days prior to each annual compliance test, notice shall be provided to the Northeast District Office. The results of each test shall be submitted to the Northeast District Office within 45 days of test completion.

(vi) FPL shall maintain records of opacity and must submit excess emissions reports for any calendar quarter during which there are excess emissions from the HRSGs. If there are no excess emissions during the calendar quarter, FPL shall submit a report stating that no excess emissions occurred during the quarterly reporting period. The quarterly reports shall be submitted to the Department's Northeast District Office.

(vii) FPL shall satisfy any applicable nitrogen oxides emissions records maintenance requirements set forth in 40 CFR § 60.49b(g) (July 1, 1990 Edition).

(viii) All records required under this condition shall be maintained by FPL for a period of two years following the date of such record.

5/18/76 _____ 2. Stack Height: Minimum stack heights for the
5/20/80 paired combined cycle unit exhaust stacks
7/16/91 shall be 71 feet above grade. Stacks with a
height of at least 150 feet shall be
constructed if monitoring data per Condition
5 indicates ambient air standards have been
violated.

5/18/76 _____ Wind Restriction: The permittee will burn
5/20/80 fuel oil containing no more than 0.50%
sulfur when sustained winds exceed 20 miles
per hour for any continuous period of three
hours or longer.

5/18/76 _____ Wind Monitoring: The permittee shall measure
5/20/80 wind velocity and wind direction at hourly
3/15/84 intervals in the plant vicinity, only for
7/16/91 those hours during which combustion turbines
at either of the combined cycle units of the
plant operates on oil with greater than 0.5
percent sulfur content. Wind data for the
hours during which oil with greater than 0.5
percent sulfur content was burned each month,
or, if applicable, a statement that no oil
with greater than 0.5 percent sulfur content
was burned during that month, shall be
reported to the Northeast District Director
of the Department by the last day of the
month following each reporting period. Wind
velocity and direction measurements required
by this paragraph shall be made in accordance
with recognized methods and procedures.

[FPL and DER shall examine the provisions of
this condition and determine necessary
revisions by 1/10/92, to conform to any
decision made pursuant to Condition No. 5,
below.]

3. The permittee shall install a sampling
platform on one stack or shall provide
sampling ports and such temporary access
facilities as may be prescribed by the
Department in performing stack sampling.

5/18/76 _____ 4. The permittee shall install and operate
3/15/84 continuous monitoring devices on one of the

7/16/91

paired combined cycle unit exhaust stacks for each unit for the following: Opacity, Nitrogen Oxides. Records of such monitoring shall be available for inspection.

5/18/76 _____
5/15/86
renumbered
5/28/92

5. With the exception of cooling tower blowdown, water effluents shall conform to the limitations of Chapter 17-3, F.A.C., including, but not limited to those contained in Condition 7 below. For cooling tower blowdown, in addition to those limitations contained in Chapter 17-3, F.A.C., and Condition 7 below, a mixing zone is hereby established for the parameters of iron, chlorine, copper, nickel and zinc with the dimensions of 800 meters in length and 90 meters in width, except that the southernmost section of the mixing zone shall be 150 meters in width as shown on Figure 5 of Attachment "A" hereto so as to take into account a particular shoreline configuration.

5/18/76 _____
5/15/86
7/17/91
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6. Monitoring shall be conducted at the frequencies listed below on the following waste streams, where applicable: Cooling Tower Blowdown, West EP Pond, North Fuel Oil Tank Farm, and the Physical Chemical Treatment System. Each of these waste streams discharge to the St. Johns River. Cooling Tower Blowdown and the Physical Chemical Treatment System discharge may discharge simultaneously or separately through the same pipe. Monitoring reports shall be submitted quarterly to the Department's Northeast District Director:

<u>Parameter</u>	<u>Monitoring Limitations</u>	<u>Frequency</u>	<u>Waste Streams</u>
a. Flow	Cooling tower blowdown shall be minimized to the degree allowed by best engineering practices	Continuous recorders, pump logs or calculation	Cooling Tower Blowdown, West EP Pond, North Fuel Oil Tank Farm Area, Physical Chemical Treatment System

b. Temperature	Not to exceed 98°F. at the P.O.D. and not to exceed 92°F. 5°F. above ambient at the boundary of a three-dimensional zone of mixing described by a cylinder of 50 meters radius running horizontally from the P.O.D. and which extends vertically to the river surface and river bottom	Continuous (recorder or logs) at any point between the blowdown discharge at the cooling tower and the P.O.D. or cooling water into the river	Cooling Tower Blowdown
c. Phosphate	50 ppm Weekly	Physical Chemical Treatment System during periods of discharge from the neutralization basin	
d. Dissolved Solids	6000 ppm	Daily Physical Chemical Treatment System	Cooling Tower Blowdown,
e. pH	6.0 - 8.5	Daily West EP Pond, North Fuel Oil Tank Farm Area, Physical Chemical Treatment System	Cooling Tower Blowdown,
f. Floating Solids and Visible Foam	None visible	None West EP Pond, North Fuel Oil Tank Farm Area, Physical Chemical Treatment System	Cooling Tower Blowdown,

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5/18/76 _____
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7.

Change in Discharge: All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any pollutant identified in this certification more frequently than or at a level in excess of that authorized shall constitute a violation of the certification. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants or expansion in steam generating capacity must be reported by submission of a new application.

5/18/76 _____
7/16/91 _____
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8.

Noncompliance Notification: If, for any reason the permittee does not comply with or will be unable to comply with any

5/28/92

limitation specified in this certification, the permittee shall provide prompt notification to the Director of the Northeast District of the Department by telecommunication sent by 3:00 p.m. of the next normal work day following the occurrence of such noncompliance, and shall submit the following information in writing, within ninety-six (96) hours of becoming aware of such conditions:

A. A description of the discharge and cause of noncompliance; and

B. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

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5/18/76 _____ 9.
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Facilities Operation: The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification.

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5/18/76 _____ 10.
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Adverse Impact: The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5/18/76 _____ 11.
7/16/91
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5/28/92

Bypassing: Any diversion or bypass of facilities necessary to maintain compliance with the terms, and conditions of this certification is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the conditions of this certification. The permittee shall promptly notify the Director of the Department of each such diversion or bypass in accordance with the procedure

contained in Condition 9 of this certification.

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5/18/76 _____
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12.

Removed Substances: Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state.

5/18/76 _____
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13.

Right of Entry: The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, upon the presentation of credentials:

(a) To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under terms and conditions of this permit; and

(b) To have access to and copy any records required to be kept under the conditions of this certification; and

(c) To inspect any monitoring equipment or monitoring method required in this certification and to sample any discharge of pollutants.

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14.

Revocation or Suspension: After notice and opportunity for a hearing, this certification may be suspended, or revoked in whole or in part during its terms for cause including, but not limited to, the provisions of § 403.512, Chapter 403, Florida Statutes, or for failure to comply with the terms and conditions of the certification.

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15.

New Pollutant Standards: If an effluent or emission standard or prohibition (including any schedule of compliance specified in such effluent or emission standard or prohibition) is established for a pollutant which is present in this certification and such standard or prohibition is more stringent than any limitation for such pollutant in this certification, this certification shall be revised in accordance with the new

effluent or emission standard or prohibition and the permittee so notified.

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5/18/76 _____ 16.
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Civil and Criminal Liability: Nothing in this certification shall be construed to relieve the permittee from civil or criminal penalties for noncompliance with any condition of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes.

5/18/76 _____ 17.
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Nothing in this certification shall be construed to preclude the institution of any legal action or relieve the permittee from the responsibilities, requirements, liabilities, or penalties established pursuant to any applicable state statutes or regulations, including Departmental rules and regulations promulgated by the Department pursuant to Chapter 403, Florida Statutes.

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5/18/76 _____ 18.
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Property Rights: The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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5/18/76 _____ 19.
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Severability: The provisions of this certification are severable, and if any provision of this certification or the application or any provision of this certification to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this certification shall not be affected thereby.

5/18/76 _____ 20.
9/26/78
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No debris shall be discharged to waters of the state from the intake screens with the exception of viable nekton.

5/18/86 _____ 21.
5/15/86
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Discharge of cooling tower blowdown shall not begin until total residual chlorine concentrations are below 0.14 mg/l. Free

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available chlorine shall not exceed a daily average concentration of 0.2 mg/l and a maximum concentration of 0.5 mg/l during a maximum of one 2-hour period a day at the point of discharge. Chlorine concentration monitoring shall be conducted two times per week using multiple grab sampling. The results of such a monitoring shall be reported to the District Manager on the same frequency as reported to the U. S. Environmental Protection Agency.

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5/18/76 _____ 22.

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Any biocide discharge from any point source shall comply with the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 U.S.C. 136 et seq.) and the use of such pesticide shall be in a manner consistent with the labeling.

5/18/76 _____ 23.

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There shall be no release from containment devices or structures of polychlorinated biphenyl compounds to the environment.

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5/18/76 _____ 24.

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There shall be no surface discharge of turbid waters to waters of the state from the spoil disposal/borrow pit system. Any spoil excavated during construction of maintenance dredging shall be deposited on an upland area. A berm or other control device shall be constructed around the spoil disposal area to ensure against spillage or discharge of excavated material which may cause turbidity in excess of 50 Jackson Turbidity Units above background in waters of the State.

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5/18/76 _____ 25.

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The barge slip shall be of a sheet-pile type construction with a poured concrete cap. Riprap shall be placed on the river bank adjacent to the barge slip to prevent erosion due to removal of natural vegetation. Spilled oil shall be removed from the barge slip prior to the departure of any barge. Such oil shall be disposed of by the plant's oil treatment system.

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5/18/76 _____ 26.

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Construction of the utilities tunnel under U.S. 17 shall be expedited to occur in a

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minimal amount of time. Such construction shall be performed in accordance with the standards of the Florida Department of Transportation and in close coordination with:

Mr. C. A. Benedict
District Engineer, Fifth Division
Florida Department of Transportation
Post Office Box 47
Deland, Florida 32720

and with

Mr. J. A. Crookshank, Jr.
Maintenance Engineer, Putnam County
Post Office Drawer X
St. Augustine, Florida 32084

renumbered
5/18/76 _____ 27.
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5/28/92

During construction and plant operation, necessary measures shall be employed to settle, filter or absorb silt-containing or pollutant-loaded stormwater runoff to prevent contamination of waters of the state. Such measures may include sediment traps, barriers, and use of berms or vegetation. Exposed or disturbed soil shall be sodded as soon as possible to minimize silt and sediment runoff into waters of the State.

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5/18/76 _____ 28.
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Turbidity control shall be installed prior to any construction or maintenance dredging to ensure that turbidity of state waters is not increased more than 50 Jackson Turbidity Units.

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7/16/91 _____ 29.
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The Groundwater Monitoring Plan for the Putnam Power Plant, approved on February 25, 1985, and on file with the Department, is incorporated by reference.

Copies of any subsequent revisions to the Groundwater Monitoring Plan which are approved by the Department's Northeast District Office shall be filed with the Department's Siting Coordination Office and provided to the parties hereto by certified mail, and, in the absence of a request for a hearing thereon within 15 days of receipt of

such revision, the revisions shall become part of this certification without the need for further filing or the submission of filing fees.

5/18/76 _____ 30.
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Review of Site Certification: This certification shall be final unless revoked or suspended pursuant to law. Five years from the date of issuance of any National Pollution Discharge Elimination System Permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972, for the Combined Cycle Units, the Department shall review all monitoring data that have been submitted to it during the preceding five-year period for the purpose of determining the extent of the permittee's compliance with the conditions of this certification and the environmental impact of this facility. The Department shall submit the results of its review and recommendations to the permittee and all parties of record in this certification proceeding.

5/18/76 _____ 31.
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7/16/91
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5/28/92

Monitoring Program Review: The results of the air, water, and groundwater monitoring programs will be reviewed by the Department and Florida Power & Light Company at the end of each year of operation to determine the necessity and/or extent of continuation. The methods and procedures utilized in the monitoring program shall be approved by the Department and shall also be reviewed annually by the Department and Florida Power & Light Company, and may be modified by agreement of all parties of record in this certification proceeding.

3/15/84 _____ 32.
renumbered
7/16/91
renumbered
5/28/92

Modification of Conditions: The conditions of this certification may be modified in the following manner:

A. The Board, pursuant to § 403.516(1), Florida Statutes, hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to air and water monitoring and sampling, variances, or exceptions to water quality standards.

B. All other modifications shall be made in accordance with § 403.516, Florida Statutes.

BEFORE THE GOVERNOR AND CABINET
OF THE STATE OF FLORIDA

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JUN 03 1992

ENV. PERMITTING

In RE:
FLORIDA POWER & LIGHT COMPANY)
PUTNAM POWER PLANT)
MODIFICATION OF CERTIFICATION)
PA 74-01F)
PUTNAM COUNTY, FLORIDA)

FINAL ORDER MODIFYING CONDITIONS
OF CERTIFICATION

On July 16, 1991, the Secretary of the Florida Department of Environmental Regulation (DER) issued a Final Order modifying Certification No. PA 74-01F for the Florida Power & Light Company (FPL) Putnam Power Plant. Those modifications were necessary to incorporate new source performance standards applicable to the heat recovery steam generators as a result of proposed refurbishments and to allow the construction activities which were necessary for those refurbishments to occur. Included within the July, 1991, modification was a requirement that FPL and DER examine the ambient monitoring program and decide whether "to upgrade the program, modify or delete it." On March 18, 1992, DER issued notice that it intended to issue a modification of the conditions of certification to allow termination of the intermittent ambient air quality monitoring program at the Putnam Power Plant.

On March 27, 1992, a notice of Intent to Issue Proposed Modification of Power Plant Certification regarding elimination of the ambient air quality monitoring program was published in the Florida Administrative Weekly and served on all parties. The notice specified that a hearing would be held if requested on or before 45 days from receipt by the parties. No hearing was requested. No person has objected to the the proposed modification.

Subsequently, on April 2, 1992, FPL submitted to DER a request to modify the conditions of certification for the Putnam Power Plant concerning the nitrogen oxides compliance test method and clarification of the nitrogen oxides emission compliance requirement for the duct burners. The modification of conditions would allow FPL to use Method 7E rather than Method 20 for the nitrogen oxides emissions compliance testing and clarify that compliance is to be determined through initial

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and annual compliance testing rather than on a 30-day rolling average basis. The requested modification was submitted pursuant to Section 403.516(1)(b), F.S., and Condition 33 (formerly Condition 32) of the conditions of certification, which delegated authority to modify certain conditions of certification to the Department.

On April 2, 1992, a copy of FPL's letter to DER requesting modification of the conditions of certification regarding the nitrogen oxides emissions test method and nitrogen oxides emissions compliance requirements was served on all parties. On April 17, 1992, an Amended Notice of Intent to Issue Proposed Modification of Power Plant Certification was published in the Florida Administrative Weekly. The notice specified that a hearing would be held if requested on or before 45 days from receipt of the request for modification by the parties. No hearing was requested. No person has objected to the proposed modification.

Accordingly, in the absence of any dispute,

IT IS ORDERED:

The Department hereby modifies the conditions of certification for Putnam Power Plant as follows:

Condition No. 1 is modified to read as follows:

1.C. Heat Recovery Steam Generators:

...

(ii)(d) Nitrogen oxides emission shall not exceed 0.2 lb/mmBtu heat input when natural gas or distillate oil is combusted or 0.4 lb/mmBtu heat input when residual oil is combusted. ~~Compliance is determined on a 30-day rolling average basis.~~ The nitrogen oxides standard applies at all times, including periods of startup, shutdown, or malfunction.

...

(v) To determine compliance with the nitrogen oxides emissions limit, FPL shall conduct a performance test using EPA Reference Methods 7E and 3, (as codified in 40 CFR Part 60, Appendix A). ~~the performance test described in 40 CFR § 60.49b(f) (July 17, 1990 Edition) and required under 40 CFR § 60.8 (July 17, 1990 Edition) using the nitrogen oxides and oxygen measurement procedures in 40 CFR Part 60 Appendix A, Method 20 (July 17, 1990 Edition).~~ The initial compliance test shall be performed within 60 days after achieving the maximum production rate for the HRSGs, but not later than 180 days after initial startup. An annual compliance test shall be performed at least once during each federal fiscal year (October 1 - September 30).

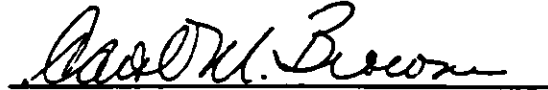
Thirty (30) days prior to the initial compliance test and fifteen (15) days prior to each annual compliance test, notice shall be provided to the Northeast District Office. The results of each test shall be submitted to the Northeast District Office within 45 days of test completion.

Conditions No. 5 is deleted and subsequent conditions are renumbered.

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department of Environmental Regulation in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date that the Final Order is filed with the clerk of the Department of Environmental Regulation.

DONE AND ENTERED THIS 28 day of May, 1992,
in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



CAROL M. BROWNER
Secretary

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Telephone: (904) 488-9730

CERTIFICATE OF SERVICE


I HEREBY CERTIFY that copies of the foregoing Final Order Modifying Conditions of Certification for Florida Power & Light Company's Putnam Power Plant were furnished to the following by United States Mail, postage prepaid, this 7th day of May, 1992:

Steven Pfeiffer, General Counsel
Department of Community Affairs
The Rhyne Building, Room 138
2740 Centerview Drive
Tallahassee, FL 32399-2100

Susan F. Clark, General Counsel
Florida Public Service Commission
Fletcher Building
101 E. Gaines Street
Tallahassee, FL 32399-0850

John Thompson, Chairman
Putnam County Board of
County Commissioners
Post Office Box 758
Palatka, FL 32178

William H. Green
Angela R. Morrison
Hopping, Boyd Green
and Sams
123 S. Calhoun Street
Post Office Box 6526
Tallahassee, FL 32314


Richard T. Donelan
Assistant General Counsel
State of Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing to Other Than The Addressee	
To: _____	Location _____
To: _____	Location _____
To: _____	Location _____
From: _____	Date _____

Interoffice Memorandum

TO: Hamilton S. Oven, Administrator
Siting Coordination Section

FROM: Larry George, Chief *LJG*
Bureau of Air Monitoring and Assessment

DATE: February 28, 1992

SUBJ: Putnam Power Plant Ambient Monitoring

The Putnam Power Plant Conditions of Certification, specifically, Condition No. 5, requires that the Department "shall examine the ambient monitoring program and decide by 1/10/92 to upgrade the program, modify or delete it." In a letter to you dated January 28, 1992, Florida Power and Light Company inquired as to the Department's position on this condition. After review of the data and the scope of the ambient monitoring program, the bureau recommends that the requirement to continue ambient air monitoring for the Putnam Power Plant be deleted.

If you have any questions or comments, contact me at 488-1344.

TO: Buck Oven
FROM: Mike Harley
DATE: May 27, 1992
SUBJ: Compliance Test Procedures
FP&L Putnam PPSC PA-74-01

We have no objection to the approval of the above referenced request.

Florida Power & Light Company's April 2, 1992 request for approval to use alternate sampling procedures for the measurement of NO_x emissions from the Putnam Plant has been reviewed. FP&L has requested approval to:

- o Measure NO_x emissions using EPA Methods 7E and 3A in lieu of EPA Method 20.
- o Determine the NO_x emitted from the duct burner by measuring NO_x emissions at the duct burner outlet under two different operating conditions. The NO_x emissions will be measured with only the turbine operating and then with both the turbine and the duct burner operating.
- o Calculate the gas flow rates using the measured fuel consumption rates and the F-factors given in EPA Method 19 in lieu of measuring the gas flow rates with EPA Method 2.

The company's proposal is acceptable pursuant to the caveats of the May 22, 1992 letter from the Region IV Office of EPA.

Based on a May 26, 1992 conversation with David McNeal of EPA, the reference to 40 CFR 60.49b(h) in EPA's May 22, 1992 letter should be 40 CFR 60.48b(h).

Please send us a copy of your final action.

cc: Jim Pennington
Barry Andrews
Patty Adams
Andy Kutyna



PP Putnam

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30362

SOURCE EVALUATION UNIT
AIR ENFORCEMENT BRANCH
FACSIMILE TRANSMISSION SHEET
Fax Number: FTS 257-5207 or 404/347-5207

DATE: 5-22-92 NUMBER OF PAGES (Including this sheet) 5

TO: Hamilton Owen PHONE: 904 488-1344

ADDRESS: FDER FAX NUMBER: 904 487-4738

FROM: David McNeal PHONE: (404) 347-5014

If the following pages are received poorly, please call Angela
at FTS 257-5014 or 404/347-5014.

SPECIAL INSTRUCTIONS FOR RECEIVER: _____

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DEPARTMENT OF STATE
TALLAHASSEE, FLORIDA

NOTICE OF INTENT TO ISSUE PROPOSED MODIFICATION
POWER PLANT CERTIFICATION

The Department proposes a modification of a Power Plant Certification issued pursuant to the Florida Electrical Power Plant Siting Act, Section 403.501 et seq., Florida Statutes, concerning:

Florida Power and Light Company

Putnam Power Plant

Power Plant Siting Application No. PA 74-01

The Department has reviewed a requested modification of the conditions of certification which would allow termination of an ambient air quality monitoring program. A copy of the proposed modification is available from Hamilton S. Oven, P.E., Administrator, Siting Coordination Office, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, (904) 487-0472.

Pursuant to Section 403.516, Florida Statutes, and Rule 17-17.211(4), F.A.C., all parties to the certification proceeding have 45 days from the date of receipt of this notice in which to respond to the request. Failure to file a response constitutes a waiver of objection to the requested modification.

POINT OF ENTRY

Any person who is not already a party to the certification proceeding and whose substantial interest is affected by the requested modification may petition for an administrative

determination (hearing) on the proposed modification within thirty days from the date of publication of this notice. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions must be filed within 30 days of publication of the public notice or within 30 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the certificate holder, Florida Power and Light Company, P.O. Box 078768, West Palm Beach, Florida 33407-0768, at the time of filing.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 30 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to file a petition within the allotted 30 day period shall constitute such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the modification.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

MAY 22 1992

4APT-AEB

Mr. Hamilton Owen, P.E., Administrator
Site Certification Section
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Review of Alternative Procedures Proposed for Duct Burner
Testing at the Florida Power and Light Company (FPL) Putnam
Plant

Dear Mr. Owen:

This letter summarizes our review of the referenced alternative testing protocol that was submitted to your agency by the law firm of Hopping Boyd Green and Sams on April 2. The proposed testing procedures which were submitted to you on behalf of FPL by Hopping Boyd Green and Sams include the following provisions which are deviations from the duct burner testing procedures promulgated at 40 C.F.R. §60.46b(f):

1. The company proposes to use EPA Methods 7E and 3A rather than EPA Method 20 to measure NO_x and diluent concentrations during the testing. Both the standard procedures and the proposed alternatives involve the use of instrumental analyzers to measure effluent concentrations. The primary difference between the methods is that Method 20 requires sampling at a large number of traverse points while single-point sampling is acceptable if the proposed alternatives are used.
2. The company proposes to sample only at the duct burner outlet. This constitutes an alternative to the procedures in 40 C.F.R. §60.46b(f) which require sampling at two locations - at the the gas turbine outlet and at the duct burner outlet. According to the procedures in 40 C.F.R. §60.46b(f), the emission rate for the duct burner is calculated as the difference between the emission rates at the two sampling sites. FPL proposes to determine the duct burner emission rate by measuring emission rates at

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the duct burner outlet under two different operating conditions - one with only the turbine operating and one with both the turbine and the duct burner operating. The justification provided for the proposed alternative is that it would be difficult to find and obtain access to an acceptable sampling location at the gas turbine outlet.

3. In lieu of using EPA Method 2 to measure gas flow rates at the proposed sampling site, the company proposes to calculate gas flow rates from measured fuel consumption rates and F-factors specified in EPA Method 19.

Based upon our review of the proposed alternatives from FPL, we have determined that using Methods 7E and 3A as alternatives to EPA Method 20 is acceptable. The basis for this determination is that since NO_x is a gas, pollutant stratification should not be a significant factor at the proposed sampling site. Therefore, it should be possible to obtain a representative concentration measurement at the duct burner outlet using single-point sampling.

Calculating gas flow rates using fuel consumption data and F-factors from EPA Method 19 would be acceptable if fuel consumption can be measured as accurately as gas flow rates can be measured using EPA Method 2 (i.e. $\pm 5\%$). The basis for this determination is that, if Method 2 were used to measure flow rates directly, F-factors would be used to determine the heat input during the testing. Since heat input is a surrogate for fuel consumption, using F-factors to calculate gas flow rates from fuel consumption data would utilize the same equations routinely used to calculate heat input from Method 2 data. Therefore, if the equipment used to measure fuel consumption is accurate to within approximately 5 percent, gas flow rates calculated using the proposed alternative procedures would be as accurate as those obtained using EPA Method 2.

Although a final decision regarding the need for simultaneous testing at the gas turbine outlet and duct burner outlet should be made based upon your knowledge of the source, we have determined that sampling only at the duct burner outlet would be acceptable if site-specific factors (i.e. duct work configuration) make it extremely difficult or impossible to install sampling ports and a sampling platform at the gas turbine outlet. Conducting all tests at the duct burner outlet may not be as accurate as conducting simultaneous testing at the gas turbine outlet and at the duct burner outlet. However, the accuracy of the proposed alternative should be acceptable if the turbine and duct burner are operated at a constant rate within 10 percent of full capacity during the testing.

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Under the provisions of 40 C.F.R. §60.8(e) FPL could be forced to install sampling ports and an adequate sampling platform at the outlet of the gas turbine. However, there are two reasons why the expense associated with the installation of sampling ports and a platform may not be justified for the source in question. The first reason that requiring the installation of additional sampling ports may not be justified is that the duct burner is part of a peaking unit that operates during only a small portion of the total plant operating time. Due to the limited operating time for the unit, the additional accuracy that could be obtained by having sampling ports at the turbine outlet may not be enough to justify the cost of having the ports and a sampling platform installed.

Another reason that requiring the installation of additional sampling ports may not be justified is that the unit in question is an existing one that became subject to 40 C.F.R. Part 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) because it was reconstructed. Providing adequate sampling access is less of a burden for new facilities than it is for existing facilities because provisions for sampling access can be made during the design of a new facility. Since the duct burner at FPL was not subject to Subpart Db when it was originally constructed, sampling access was not an issue considered during the design of the facility. According to FPL, it would be extremely difficult to retrofit sampling ports and a sampling platform at the gas turbine outlet. Depending upon the actual difficulty associated with installing sampling ports and a platform, the additional accuracy that could be obtained by having additional sampling access may not be enough to justify the cost of the retrofit.

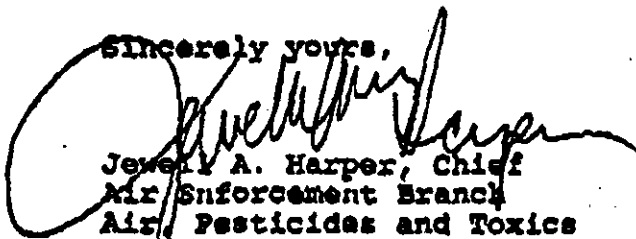
One thing that the FPL proposal did not specify clearly was how the data obtained utilizing the alternative procedures would be used to calculate a duct burner emission rate in $\text{lb}/10^6 \text{ BTU}$. However, if the testing is conducted as proposed, the company will have the information necessary to calculate emission rates with the proper units. In order to calculate the duct burner NO_x emission rate in $\text{lb}/10^6 \text{ BTU}$, the gas turbine emission rate in lb/hr (page 5 of Appendix A to the FPL submittal) would be subtracted from the combined gas turbine/duct burner emission rate in lb/hr (page 6 of Appendix A to the FPL submittal) and the result would be divided by the heat input to the duct burner in $10^6 \text{ BTU}/\text{hr}$.

One additional issue that was addressed in the letter from Hopping Boyd Green and Sams involves the averaging time for the duct burner emission standard. Hopping Boyd Green and Sams is correct in their determination that a 30-day rolling average emission standard would not be appropriate for the facility.

The basis for this conclusion is that, according to 40 C.F.R. §60.46b(f), NO_x compliance for duct burners is to be determined through the use of manual emission tests. In addition, 40 C.F.R. §60.49b(h) clearly states that owners or operators of duct burners are not required to install continuous NO_x emission monitors. If the facility were subject to a 30-day rolling average emission standard, the only practical way to demonstrate compliance would be through installation and operation of a continuous NO_x emission monitoring system.

If you have any questions about the determinations provided in this letter, please contact Mr. David McNeal of my staff at 404/347-5014.

Sincerely yours,



Jewel A. Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

cc: Mr. James K. Pennington, P.E., Administrator
Compliance and Enforcement Section
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Mr. Mike Harley
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

MAY 22 1992

4APT-AEB

Mr. Hamilton Oven, P.E., Administrator
Site Certification Section
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Review of Alternative Procedures Proposed for Duct Burner
Testing at the Florida Power and Light Company (FPL) Putnam
Plant

Dear Mr. Oven:

This letter summarizes our review of the referenced alternative testing protocol that was submitted to your agency by the law firm of Hopping Boyd Green and Sams on April 2. The proposed testing procedures which were submitted to you on behalf of FPL by Hopping Boyd Green and Sams include the following provisions which are deviations from the duct burner testing procedures promulgated at 40 C.F.R. §60.46b(f):

1. The company proposes to use EPA Methods 7E and 3A rather than EPA Method 20 to measure NO_x and diluent concentrations during the testing. Both the standard procedures and the proposed alternatives involve the use of instrumental analyzers to measure effluent concentrations. The primary difference between the methods is that Method 20 requires sampling at a large number of traverse points while single-point sampling is acceptable if the proposed alternatives are used.
2. The company proposes to sample only at the duct burner outlet. This constitutes an alternative to the procedures in 40 C.F.R. §60.46b(f) which require sampling at two locations - at the the gas turbine outlet and at the duct burner outlet. According to the procedures in 40 C.F.R. §60.46b(f), the emission rate for the duct burner is calculated as the difference between the emission rates at the two sampling sites. FPL proposes to determine the duct burner emission rate by measuring emission rates at

the duct burner outlet under two different operating conditions - one with only the turbine operating and one with both the turbine and the duct burner operating. The justification provided for the proposed alternative is that it would be difficult to find and obtain access to an acceptable sampling location at the gas turbine outlet.

3. In lieu of using EPA Method 2 to measure gas flow rates at the proposed sampling site, the company proposes to calculate gas flow rates from measured fuel consumption rates and F-factors specified in EPA Method 19.

Based upon our review of the proposed alternatives from FPL, we have determined that using Methods 7E and 3A as alternatives to EPA Method 20 is acceptable. The basis for this determination is that since NO_x is a gas, pollutant stratification should not be a significant factor at the proposed sampling site. Therefore, it should be possible to obtain a representative concentration measurement at the duct burner outlet using single-point sampling.

Calculating gas flow rates using fuel consumption data and F-factors from EPA Method 19 would be acceptable if fuel consumption can be measured as accurately as gas flow rates can be measured using EPA Method 2 (i.e. $\pm 5\%$). The basis for this determination is that, if Method 2 were used to measure flow rates directly, F-factors would be used to determine the heat input during the testing. Since heat input is a surrogate for fuel consumption, using F-factors to calculate gas flow rates from fuel consumption data would utilize the same equations routinely used to calculate heat input from Method 2 data. Therefore, if the equipment used to measure fuel consumption is accurate to within approximately 5 percent, gas flow rates calculated using the proposed alternative procedures would be as accurate as those obtained using EPA Method 2.

Although a final decision regarding the need for simultaneous testing at the gas turbine outlet and duct burner outlet should be made based upon your knowledge of the source, we have determined that sampling only at the duct burner outlet would be acceptable if site-specific factors (i.e. duct work configuration) make it extremely difficult or impossible to install sampling ports and a sampling platform at the gas turbine outlet. Conducting all tests at the duct burner outlet may not be as accurate as conducting simultaneous testing at the gas turbine outlet and at the duct burner outlet. However, the accuracy of the proposed alternative should be acceptable if the turbine and duct burner are operated at a constant rate within 10 percent of full capacity during the testing.

Under the provisions of 40 C.F.R. §60.8(e) FPL could be forced to install sampling ports and an adequate sampling platform at the outlet of the gas turbine. However, there are two reasons why the expense associated with the installation of sampling ports and a platform may not be justified for the source in question. The first reason that requiring the installation of additional sampling ports may not be justified is that the duct burner is part of a peaking unit that operates during only a small portion of the total plant operating time. Due to the limited operating time for the unit, the additional accuracy that could be obtained by having sampling ports at the turbine outlet may not be enough to justify the cost of having the ports and a sampling platform installed.

Another reason that requiring the installation of additional sampling ports may not be justified is that the unit in question is an existing one that became subject to 40 C.F.R. Part 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) because it was reconstructed. Providing adequate sampling access is less of a burden for new facilities than it is for existing facilities because provisions for sampling access can be made during the design of a new facility. Since the duct burner at FPL was not subject to Subpart Db when it was originally constructed, sampling access was not an issue considered during the design of the facility. According to FPL, it would be extremely difficult to retrofit sampling ports and a sampling platform at the gas turbine outlet. Depending upon the actual difficulty associated with installing sampling ports and a platform, the additional accuracy that could be obtained by having additional sampling access may not be enough to justify the cost of the retrofit.

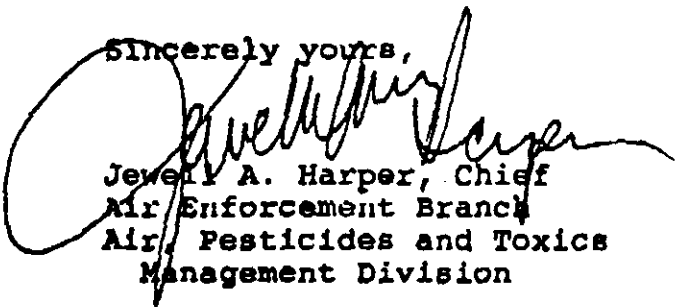
One thing that the FPL proposal did not specify clearly was how the data obtained utilizing the alternative procedures would be used to calculate a duct burner emission rate in $\text{lb}/10^6$ BTU. However, if the testing is conducted as proposed, the company will have the information necessary to calculate emission rates with the proper units. In order to calculate the duct burner NO_x emission rate in $\text{lb}/10^6$ BTU, the gas turbine emission rate in lb/hr (page 5 of Appendix A to the FPL submittal) would be subtracted from the combined gas turbine/duct burner emission rate in lb/hr (page 6 of Appendix A to the FPL submittal) and the result would be divided by the heat input to the duct burner in 10^6 BTU/hr.

One additional issue that was addressed in the letter from Hopping Boyd Green and Sams involves the averaging time for the duct burner emission standard. Hopping Boyd Green and Sams is correct in their determination that a 30-day rolling average emission standard would not be appropriate for the facility.

The basis for this conclusion is that, according to 40 C.F.R. §60.46b(f), NO_x compliance for duct burners is to be determined through the use of manual emission tests. In addition, 40 C.F.R. §60.49b(h) clearly states that owners or operators of duct burners are not required to install continuous NO_x emission monitors. If the facility were subject to a 30-day rolling average emission standard, the only practical way to demonstrate compliance would be through installation and operation of a continuous NO_x emission monitoring system.

If you have any questions about the determinations provided in this letter, please contact Mr. David McNeal of my staff at 404/347-5014.

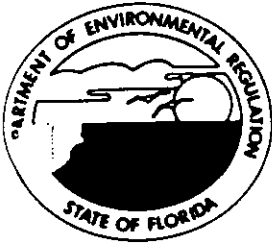
Sincerely yours,



Jewel A. Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

cc: Mr. James K. Pennington, P.E., Administrator
Compliance and Enforcement Section
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
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Mr. Mike Harley
Bureau of Air Regulation
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Tallahassee, Florida 32399-2400



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

February 5, 1992

Mark L. Mclean
Florida Power & Light Company
P.O. Box 078768
West Palm Beach, Florida 33407-0768

RE: Modification to Putnam Groundwater Monitoring
Plan, PA 74-01

Dear Mr. McLean:

The Department hereby approves the modifications to the
Putnam Plant Groundwater Monitoring Plan as proposed by your
letter of August 19, 1992.

Sincerely,

Hamilton S. Owen, P.E.
Administrator, Siting
Coordination Office

cc: Bob Leetch, DER
Robert Martin, DER
Richard Donelan, DER
Steven Pfeiffer, DCA
Michael Palecki, PSC
John Thompson, Putnam County
William H. Green, HBG&S

RECEIVED

FEB 11 1992

ENVIRONMENTAL AFFAIRS

CERTIFICATE OF SERVICE

Pursuant to Condition of Certification 30 for the Florida Power & Light Company Putnam Power Plant, the Department of Environmental Regulation hereby files notice of an approval of a modification to the Groundwater Monitoring Plan for the power plant site. I hereby certify that copies of the approval letter were filed by U.S. Mail on February 5, 1992.

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office
Florida Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



August 19, 1991

Sally Heuer
Florida Department of Environmental Regulation
3426 Bills Road
Jacksonville, Florida 32207

**RE: Modification to Putnam Plant
 Groundwater Monitoring Plan
 Site Number PPS-74-01**

Dear Ms. Heuer:

Florida Power and Light Company (FPL) respectfully requests modifications to the Putnam Plant Groundwater Monitoring Plan (GMP) which was approved by the Florida Department of Environmental Regulation (DER) on February 25, 1985. The modifications are related to the following two items:

- Item 1) Storage of a lime/alum/clay mixture and spent sand blasting material in and around one of the two approved sludge drying basins.
- Item 2) Removal of methylene chloride from the list of parameters to be monitored in wells OB-2R and PU-MW-1.

Item 1)

The Putnam Plant currently has approximately 933 cubic yards on site of a lime/alum/clay mixture which is blowdown from the plant's industrial water treatment coagulator. Attachment 1 is a summary of four EP-Tox analyses of this material which is currently stored in the existing sludge drying basins (see Figure 1 for location). FPL requests permission to store this material until further notice in the red cross-hatched area on Figure 1. This area, with the exception of approximately 1500 square feet located south of the south sludge drying basin, is addressed in the current GMP. There is one monitoring well upstream and three downstream of this area (See Figure 1). These wells are monitored quarterly for the following parameters:

- 1) pH
- 2) Arsenic
- 3) Chromium
- 4) Silver
- 5) Copper
- 6) Iron
- 7) Manganese

- 8) Nickel
- 9) Oil and Grease
- 10) Sulfate
- 11) Total Dissolved Solids
- 12) Zinc
- 13) Methylene Chloride

Storage of this material would result in no significant change to the current situation. Approximately 150 cubic yards of this mixture are generated each year. Cost of disposal of this material at the Putnam County Landfill would be approximately \$30,000 plus transportation costs.

In addition to this lime/alum/clay mixture FPL requests modification to the GMP to allow storage of spent sandblasting material in this same area. Attachment 2 is an EP-Tox analysis of this material. FPL currently has 180 cubic yards of this material on site and generates approximately 90 cubic yards per year. Cost of disposal of this material at the Putnam County Landfill would be approximately \$7,000 plus transportation costs.

Item 2)

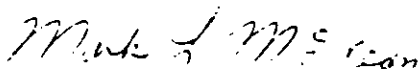
The letter of approval for the Putnam Plant GMP (See Attachment 3) states as follows:

- 1) Due to the high levels of methylene chloride (0.50 mg/l and 0.37 mg/l) found in the wastewater from the Oily Waste Basin and the West Evaporation/Percolation Basin, the Department of Environmental Regulation requires that monitor wells OB-2 and PU-MW-1 be monitored quarterly for methylene chloride in addition to those parameters proposed in the submitted plan. This monitoring must be done for one year (four samples) to assess the presence of methylene chloride in the ground water. At the end of the sampling year, both DER and FPL shall discuss further need to monitor for methylene chloride based on the data submitted.

Attachments 4 & 5 are tables presenting data for 1986- present for methylene chloride. Since no methylene chloride has been detected, FPL feels this parameter should be deleted as provided in the above-referenced approval letter.

If you have any questions in these matters, please contact Ron Hix at (407) 640-2073.

Sincerely,



Mark L. McLean
Environmental Specialist
Florida Power & Light Company

cc:
Mr. Hamilton Owen - DER/Tallahassee

PROJECT NUMBER 87413 0307
 FIELD GROUP FPLNB6

PROJECT NAME FPL-BASINS-PUTNAM
 LAB COORDINATOR J.D. SHAMIS

PARAMETERS	UNITS	STORET # METHOD	SAMPLE ID/1			
			PBACOMP FPLNB6 7	PBACOMP FPLNB6 8	PBBCOMP FPLNB6 9	PBBCOMP FPLNB6 10
DATE			05/05/87	05/05/87	05/05/87	05/05/87
TIME			00:00	00:00	00:00	00:00
EP-TOX, DATE OF EXTRA		97078	5/12/87	5/8/87	5/8/87	5/8/87
CTION		M				
ARSENIC, DISS		1000	<2.1	<2.1	<2.1	<2.1
	UG/L	GFAA				
BARIUM, DISS		1005	448	475	364	356
	UG/L	ICAP				
CADMIUM, DISS		1025	<6.0	<6.0	<6.0	<6.0
	UG/L	ICAP				
CHROMIUM, DISS		1030	<8.1	<8.1	9.0	<8.1
	UG/L	ICAP				
LEAD, DISS		1049	<62.4	<62.4	<62.4	<62.4
	UG/L	ICAP				
MERCURY, DISS.		71890	0.3	<0.2	0.3	<0.2
	UG/L	CVAA				
SELENIUM, DISS		1145	<1.6	<1.6	<1.6	<3.1
	UG/L	GFAA				
SILVER, DISS		1075	<8.7	<8.7	<8.7	<8.7
	UG/L	ICAP				
CORROSIVITY, SW846		98724	<6.35	<6.35	<6.35	<6.35
	MM/YR	I				
PH, SOIL		99218	9.9	10.2	10.7	10.7
	STD UNITS	I				
REACTIVITY		99342	NEG	NEG	NEG	NEG
		I				
FLASH POINT		74030	>110	>110	>110	>110
	DEG-C	I				

Weight 56 lb/cu ft

Volume 933 cu yds

EDWARD E. CLARK ENGINEERS-SCIENTISTS, INC.

RESULTS OF LABORATORY ANALYSES

REPORT DATE: June 11, 1987
 SAMPLE LOCATION: FP&L PUTNAM PLANT
 SAMPLE COLLECTED BY: P. WILSON - FP&L
 SAMPLE DATE: April 28, 1987
 DATE & TIME RECEIVED IN LABORATORY: May 5, 1987 @ 1230
 ANALYSIS DATE(S): May 13 - June 11, 1987
 SAMPLE TYPE: Sand Blasting Sand
 FLORIDA ENVIRONMENTAL LABORATORY CERTIFICATION #: T86036
 DHRS LABORATORY CERTIFICATION #: 86196

Page 1 of 4
 Project No. 8612U

PARAMETER	EP TOXICITY EXTRACTABLE METALS					
	Arsenic mg/l	Selenium mg/l	Mercury mg/l	Lead mg/l	Chromium mg/l	Cadmium mg/l
STATION						
Sand Blasting Sand	<.05	<.01	<.002	<.5	<.05	0.05

RECEIVED

JUN 22 1987

Putnam Plant

Bruce K. Krepley
 Bruce K. Krepley
 Laboratory Director

P. 1 of 2

EDWARD E. CLARK ENGINEERS-SCIENTISTS, INC.

RESULTS OF LABORATORY ANALYSES

REPORT DATE: June 11, 1987
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 SAMPLE TYPE: Sand Blasting Sand
 FLORIDA ENVIRONMENTAL LABORATORY CERTIFICATION #: T66036
 DHRS LABORATORY CERTIFICATION #: 86196

Page 2 of 4
 Project No. 8612U

EP TOXICITY EXTRACTABLE METALS

PARAMETER	Barium	Silver	Flash Point
	mg/l	mg/l	°F
STATION			
Sand Blasting Sand	0.78	<.05	>290

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JUN 22 1987

Putnam Plant

ATTACHMENT 5

FLORIDA POWER AND LIGHT COMPANY
PUTNAM PLANT
GROUNDWATER MONITORING
METHYLENE CHLORIDE VALUES
WELL CB-2 (DOWNGRADIENT)

SAMPLE DATE	VALUE
2/11/86	< 1.0 ug/L
5/19/86	< 1.0 ug/L
8/11/86	< 1.0 ug/L
11/19/86	< 1.0 ug/L
1/26/87	< 1.0 ug/L
4/20/87	< 1.0 ug/L
7/23/87	< 1.0 ug/L
10/1/87	< 1.0 ug/L
2/3/88	< 1.0 ug/L
4/21/88	< 1.0 ug/L
7/14/88	< 1.0 ug/L
10/6/88	< 1.0 ug/L
1/18/89	< 1.0 ug/L
4/5/89	< 1.0 ug/L
7/13/89	< 1.0 ug/L
10/9/89	< 1.0 ug/L
1/17/90	< 2.0 ug/L

4

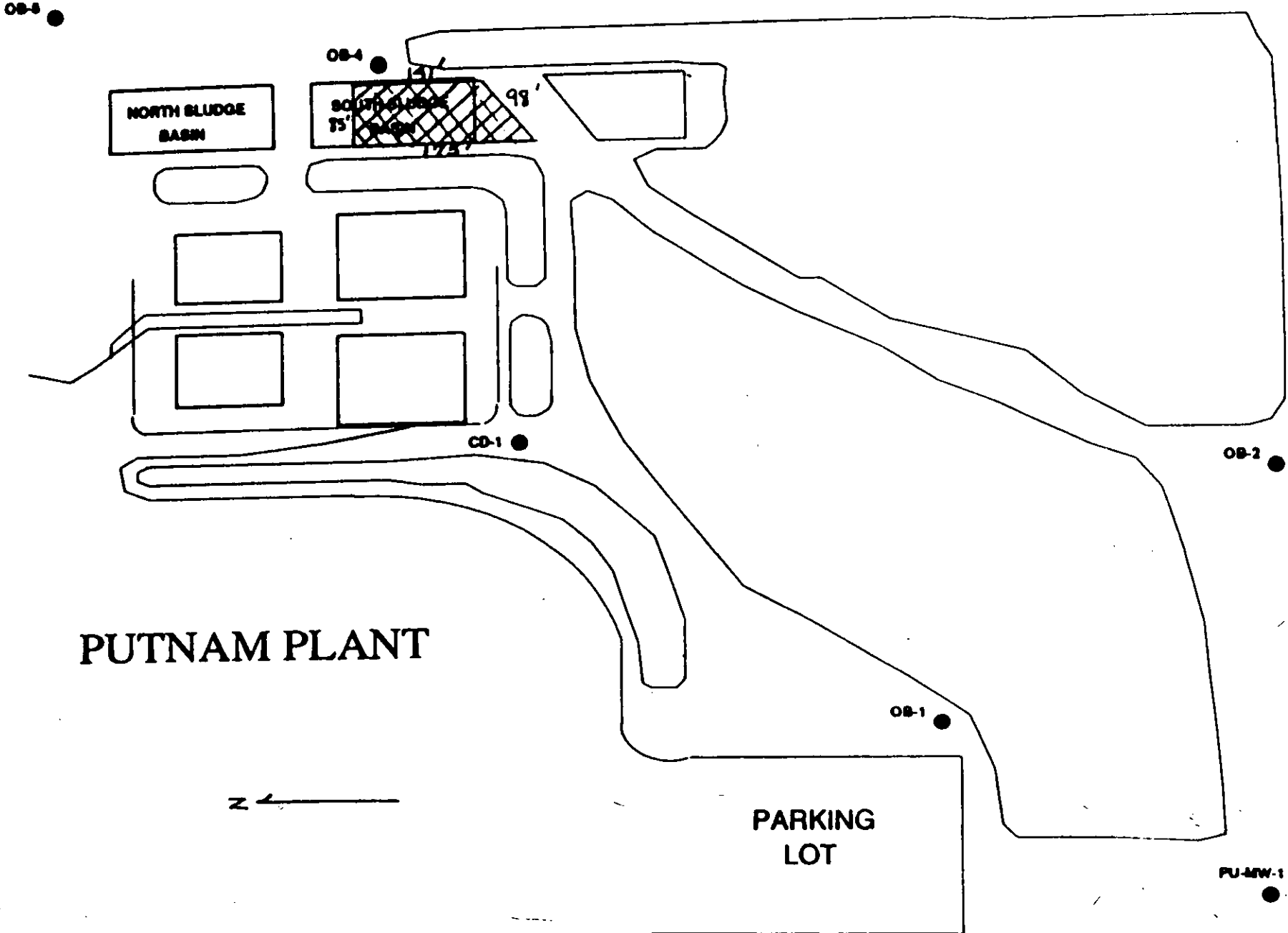


Figure 1

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

FAX (904) 224-8551

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WILLIAM L. BOYD, IV
RICHARD S. BRIGHTMAN
PETER C. CUNNINGHAM
RALPH A. DEMEO
THOMAS M. DEROSE
WILLIAM H. GREEN
WADE L. HOPPING
FRANK E. MATTHEWS
RICHARD D. MELSON
WILLIAM D. PRESTON
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CHERYL G. STUART

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JONATHAN S. FOX
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JULIE B. ROME
KRISTIN C. RUBIN
CECELIA C. SMITH

OF COUNSEL
W. ROBERT FOXES

September 1, 1993

RECEIVED

SEP 07 1993

ENV. PERMITTING

Judy M. McGrady
Florida Power & Light Co.
Environmental Affairs
Post Office Box 088801
North Palm Beach, FL 33408-8801

Re: FPL Putnam Plant; Authorized Heat Input Rates

Dear Judy:

At your request, I have attempted to identify the heat input rates for the FPL Putnam units which have been established under the permits for that plant. FPL needs to identify these rates as part of its efforts to obtain and install CEMs on the units. FPL's latest regulatory submittal which identified the units' heat input rates was the March, 1991 request for modification of site certification under the Power Plant Siting Act for the Putnam units. Section III.E. (page 5 of 12) of the completed Application to Operate/Construct Air Pollution Sources, submitted as part of the PPSA modification request, (enclosed) indicated the maximum heat input rates to the units as follows:

Heat Input Rate

No. 2 Fuel Oil - CT	910.6 MMBtu/hr.
No. 2 Fuel Oil - HRSG (duct burners)	250 MMBtu/hr.
Natural Gas - CT	968.3 MMBtu/hr.
Natural Gas - HRSG (duct burners)	250 MMBtu/hr.

These are based on CT operation at base load and 85°F. Tables 2-1, 2-2 and 2-3 (enclosed), which were attached to that application, identified the parameters, such as megawattage, fuel flow and heat rate, at which these heat input rates were defined.

These heat input rates slightly exceed the heat input rates identified during the original permitting for the units in 1974. (See attached memo from Elsa Bishop, dated January 29, 1990.) However, since these values have been implicitly accepted by the Department of Environmental Protection during the recent

Judy M. McGrady
September 1, 1993
Page 2

modification process and appear to be based on actual operating data, as opposed to initial engineering estimates, the above heat input rates can be treated as authorized rates for the combined cycle units.

I trust this responds to your request. Should you have any further questions, please give me a call.

Sincerely,

A handwritten signature in cursive script, appearing to read "Douglas S. Roberts".

Douglas S. Roberts

DSR/gs
Encls.