

BEFORE THE GOVERNOR AND CABINET
OF THE STATE OF FLORIDA

In the Matter of:)	
)	
FLORIDA POWER & LIGHT COMPANY,)	Order No.
PALATKA STATION:)	
Modification of Conditions of)	
Certification No. PPS-74-01,)	
)	
Putnam County, Florida,)	
)	
Permittee.)	
)	
)	

The following persons were present and participated
in the disposition of this matter:

Honorable Reubin O'D. Askew
Governor

Honorable Bruce A. Smathers
Secretary of State

Honorable Robert L. Shevin
Attorney General

Honorable Philip F. Ashler
Treasurer and Insurance Commissioner

Honorable Gerald A. Lewis
Comptroller

Honorable Doyle Conner
Commissioner of Agriculture

Honorable Ralph D. Turlington
Commissioner of Education

O R D E R

BY THE GOVERNOR AND CABINET:

The Governor and Cabinet, having fully considered
the Stipulation of Parties Modifying Certain Conditions of
Certification, a copy of which is attached hereto as Exhibit
A, and being otherwise duly advised in the premises, it is
therefore,

ORDERED by the Governor and Florida Cabinet, in exercising their functions under Section 403.501 through Section 403.515, and Section 20.261(12), Florida Statutes 1975, that the Conditions of Site Certification No. PPS-74-01 be and the same are hereby modified in accordance with the proposed modifications set forth in the Stipulation of Parties Modifying Certain Conditions of Certification which is attached hereto as Exhibit A.

Accordingly, the proposed modifications set forth in the Stipulation of Parties Modifying Certain Conditions of Certification are expressly confirmed and incorporated herein.

DONE this 18th day of May, 1976.

ENTERED this 18th day of May, 1976, at Tallahassee, Florida.

FOR THE GOVERNOR AND FLORIDA
CABINET:



REUBIN O'D. ASKEW
Governor

VOTE:

FOR:

AGAINST:

Honorable Reubin O'D. Askew
Honorable Bruce A. Smathers
Honorable Robert L. Shevin
Honorable Gerald A. Lewis
Honorable Philip F. Ashler
Honorable Ralph D. Turlington
Honorable Doyle Conner

Copies furnished to:

All Parties of Record

Carolyn C. Mason
As to Joseph A. McGlothlin

As to Raymond B. Bunton

As to Florida Power & Light Company

Joseph A. McGlothlin
Joseph A. McGlothlin, Esquire
Attorney, Public Service Commission
700 South Adams Street
Tallahassee, Florida 32304

Raymond B. Bunton
Raymond B. Bunton, Designee
Putnam County Board of County
Commissioners
Palatka, Florida

FLORIDA POWER & LIGHT COMPANY

By: Ronald D. Alonzo
Vice-President

Attest: Astria Pfeiffer
Secretary

(SEAL)
FLORIDA POWER & LIGHT
COMPANY

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 Chapter 17-2.04(e).
2. The stack height shall be not less than 150 feet high.
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 monitoring devices on each stack for the following: Opacity, Nitrogen Oxides. Records of such monitoring shall be available for inspection.
5. The permittee shall install and operate two continuous monitoring devices for sulfur dioxide and two particulate samplers. The location of these ambient air samplers shall be determined by consultation with the Northeast Regional Administrator of the Department. The data collected will be reported to the Regional Administrator monthly by the 10th of each subsequent month.
6. Water effluents shall conform to the limitation of Chapter 17-3, FAC.
7. The following parameters shall be reported monthly to the Regional Administrator:

<u>Effluent Characteristics</u>	<u>Limitations</u>	<u>Monitoring</u>
a. flow	1430 gpm-to existing plant intake	continuous - recorders or pump logs
b. temperature	Not to exceed 92°F. or 5° above ambient	continuous
c. Phosphate from Blow down tank	50 ppm	daily

d.	Dissolved Solids	6000 ppm	daily
e.	PH	6.0-8.5	daily
f.	Floating Solids visible foam	none visible	none

8. The phosphate concentration of the 50 gpm "Blow Down Tank" shall not exceed 50 ppm. The dilution as required to the "Blow Down Tank" and "Holdup Tank" will not be allowed. The discharge of phosphate not to exceed 50 ppm and Total Dissolved Solids not to exceed 6000 ppm shall be achieved by appropriate treatment.
9. Effluent to the existing plant intake shall not be more than 1430 gpm and shall be placed into the intake in such a manner as to preclude direct discharge to the St. Johns River.
10. 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.
11. 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 the Northeast Regional Administrator of the Department with the following information, in writing, within forty eight (48) 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 anticipated time, the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

12. 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.
13. Adverse Impact:
The permittee shall take all reasonable steps to minimize any adverse impact resulting from non-compliance 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.
14. 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, 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 Regional Administrator of the Department in writing of each such diversion or bypass within 24 hours.
15. 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.
16. Right of entry:
The permittee shall allow the Director of the Florida Department of Pollution Control 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 the 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 or pollutants.

17. **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 provision of Section 403.512, Chapter 403, Florida Statutes.
18. **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.
19. **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.
20. **Nothing in this certification shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State Statutes, or Regulation, including Departmental rules and regulations promulgated by the Department pursuant to Chapter 403, F.S.**
21. **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.
22. **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.

23. No debris shall be discharged to waters of the State from the intake screens with the exception of viable nekton. Additionally, the permittee shall evaluate methods of returning viable nekton collected on the intake screens to ambient temperature waters and shall submit a report presenting results within twelve (12) months of the date of commencement of plant operation.
24. 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. No discharge of total residual chlorine is allowed from one unit while another unit at the same station is being chlorinated. Monitoring shall be conducted two times per week during the period of maximum expected residual. The results of such a monitoring shall be reported quarterly to the Regional Administrator. 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) chemical scavenging. Results of this study including facilities and/or methods proposed to reduce total chlorine residuals shall be submitted within twelve months of commencement of plant operation. Subsequently, chlorination procedures to reduce total chlorine residuals shall be implemented to the extent practicable.
25. 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.
26. There shall be no discharge of polychlorinated biphenyl transformer fluids to waters of the State.
27. 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 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.

28. The Barge Slip shall be of a sheet pile type construction with a poured concrete cap. Pipe-rap 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.
29. Construction of the utilities tunnel under US 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
P. O. Box 47
Deland, Florida 32720

and with:

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

30. During construction and plant operation necessary measures shall be employed to settle, filter or absorb silt containing or pollutant loaded storm-water 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.
31. 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.
32. The permittee as condition precedent to issuance of this certification shall submit an application fee, the total amount of which shall not exceed \$25,000 to be applied toward the costs of any study investigation, hearing or processing procedures conducted pursuant to Section 405.501 through 403.516, F.S.

33. **Renewal of Site Certification:**
This certification shall expire five years from date of issuance. It is renewable by the Department upon receipt of a request from the permittee. The permittee shall file a written request for renewal of site certification no later than 120 days prior to the expiration date. Within 60 days of receipt of a request for renewal of site certification the Department shall request any additional necessary information.

The Department shall renew the site certification upon a finding of the permittee's compliance with the conditions of this original certification.

EXHIBIT "B"

RATIONALE AND JUSTIFICATIONS
FOR PROPOSED MODIFICATION OF THE CONDITIONS OF
CERTIFICATION OF PPS-74-01

Permittee and the Department of Environmental Regulation (the "department") propose the following modifications and amendments to the original conditions of certification (only those original conditions which are changed, modified, or renumbered are included below):

~~2.---The-stack-height-shall-be-not-less-than-150-feet-high.~~

2. Stack Height: Minimum stack heights shall be 53 feet above grade. Stacks with a height of at least 150 feet shall be constructed prior to burning residual fuel oil containing more than 0.35% sulfur, except as provided for in "Warranty Testing".

Warranty Testing: The permittee may burn fuel oil containing more than 0.35% sulfur, but not more than 0.7% sulfur, during an initial twelve month warranty testing period: provided, however, that during this test period, the burning of fuel oil containing more than 0.35% sulfur shall be suspended by the permittee during such times that sustained winds may 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, during each period that fuel oil containing more than 0.35% sulfur is burned. Such wind data shall be reported monthly to the Lower St. Johns Subdistrict 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; the permittee shall submit to the Department the details of its measuring plans at least 30 days prior to burning of fuel oil containing more than 0.35% sulfur.

Rationale and Justification

Based upon the appropriate application of modeling (previously submitted during the public hearing of this matter), to stack heights of approximately 60 feet, and based upon the use of the lower 0.35% sulfur fuel, the permittee believes that the impact on air quality will be less than that shown in the model testified to at the original certification hearings. The modification will allow the permittee to test the units under warranty conditions during the first twelve months of boiler operation, while safeguarding air quality. An estimated capital cost savings to the permittee of \$4,000,000 will be realized through the use of lower sulfur fuel.

4. The permittee shall install and operate continuous monitoring devices on each stack for the following: opacity, nitrogen oxides. Records of such monitoring shall be available for inspection.

Rationale and Justification

Clarification requested by the department.

5. The permittee shall install and operate continuously for a 24-hour period every three days two continuous ambient air, West-Gaeke, monitoring devices for sulfur dioxide and two suspended particulate samplers sampling devices. After six months of operation, the Department may allow sampling on a six day interval. The location of these ambient air samplers shall be determined by consultation with the Northeast-Regional-Administrator-of-the Department Lower St. Johns Subdistrict Manager of the Department. The data collected will be reported to the Regional-Administrator Subdistrict Manager monthly quarterly by the 10th last day of each subsequent month following the reporting period, utilizing the SAROAD or other mutually acceptable format.

Rationale and Justification

The language modification is based upon agreement between permittee and DER Technical Staff as being satisfactory, from a scientific standpoint, to insure that the Department standards will be complied with. Furthermore, the more restrictive limitations of condition #2, resulting in a reduced air quality impact after the twelve month warranty testing period reduce the necessity for continuous monitoring. The change will result in a capital saving to the permittee of approximately \$20,000.

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.

Rationale and Justification

Grammatical; adds clarification.

7. The following parameters shall be reported monthly to the Regional-Administrator Subdistrict Manager:

Rationale and Justification

Conforms language to the Environmental Reorganization Act of 1975.

Effluent Characteristics

Limitations

Monitoring

. Flow	1439-gpm-to existing plant intake <u>discharge area.</u> 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.
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Rationale and Justification

Relocation of the discharge pipe was made to reduce the cost by approximately \$50,000 and to improve the efficiency of the old plant. This modification, requested by permittee, will require permittee's cooling tower to be operated at the maximum number of concentration cycles allowed by best engineering practice, while taking into account the dependence of cooling tower operation upon the quality of the make-up water taken from the St. Johns River and the seasonal fluctuations thereof.

. 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 <u>between the blowdown discharge at the cooling tower and the P.O.D. of cooling water into the river.</u>
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Rationale and Justification

The change is made on permittee's request and demonstration pursuant to §17-3.05(3)(f), F.A.C. which authorizes the Department to establish zones of mixing for blowdown discharges from recirculated cooling water systems (cooling towers) and to measure compliance at the P.O.D. A more detailed explanation of this change is incorporated in Attachment "A" which is made a part of this Exhibit "B".

Phosphate from to
Blowdown tank

50 ppm

Daily Weekly

Rationale and Justification

This modification requested by permittee will also allow sampling at a point where water chemistry samples are normally taken. Frequency of sampling was decreased to avoid excess data collection on the basis that the phosphate impact on the receiving body of water from blowdown will be negligible. To comply with the initial phosphate monitoring condition would require excess manhours for a negligible environmental impact.

. Dissolved Solids	6000 ppm	Daily
. pH	6.0 - 8.5	Daily
. Floating solids and visible foam	None visible	None

~~8.---The-phosphate-concentration-of-the-50-gpm-"Blowdown Tank"-shall-not-exceed-50-ppm.---The-dilution-as-required-to-the "Blowdown-Tank"-and-"holdup-Tank"-will-not-be-allowed.---The-discharge-of-phosphate-not-to-exceed-50-ppm-and-Total-Dissolved Solids-not-to-exceed-6000-ppm-shall-be-achieved-by-appropriate treatment.~~

Rationale and Justification

Duplicative of conditions 7c. and d. as modified; deleted to avoid confusion and misinterpretation.

~~9.---Effluents-to-the-existing-plant-intake-shall-not-be more-than-1430-gpm-and-shall-be-placed-into-the-intake-in-such a-manner-as-to-preclude-direct-discharge-to-the-St-Johns-River.~~

Rationale and Justification

Duplicative of conditions 7a. and b. as modified; deleted to avoid confusion and misinterpretation.

8. Renumbered; same as original condition 10.

9. ~~11-~~ Noncompliance Notification:

IF, for any reason, the permittee does not comply with or will be unable to comply with any limitation specification in this certification, the permittee shall provide prompt notification to the Northeast-Regional-Administrator Lower St. Johns Subdistrict 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 non-compliance, and shall submit with the following information in writing, within ~~forty-eight-(48)~~ 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.

Rationale and Justification

Conforms language to Environmental Reorganization Act. The ninety-six hour time limit will allow permittee adequate time to comply information required to be submitted.

10. Renumbered; same as original condition 12.

11. Renumbered; same as original condition 13.

12. ~~14-~~ Bypassing:

Any diversion or bypass of facilities necessary to maintain compliance with the terms and conditions of this certification is prohibited, except ~~(1)~~ (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-Regional-Administrator~~ Lower St. Johns Subdistrict Manager of the Department ~~in-writing~~ of each such diversion or bypass ~~within-24-hours~~ in accordance with the procedure contained in condition #9 of this certification.

Rationale and Justification

Conforms numbers; conforms language to Environmental Reorganization Act, and NPDES permit requirements.

13. Renumbered; same as original condition 15.

14. ~~16-~~ Right of entry:

The permittee shall allow the ~~Director~~ Secretary of the Florida Department of ~~Pollution-Control~~ 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 the 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

Rationale and Justification

Conforms language to Environmental Reorganization Act.

15. 17- 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 provision of §403.512, Chapter 403, Florida Statutes, or for failure to comply with the terms and conditions of the certification.

Rationale and Justification

Technical amendment requested by the department.

16. and 17. Renumbered; same as original conditions

18. and 19.

18. 20- Nothing in this certification shall be construed to preclude the institution of any legal action or relieve the permittee from any the responsibilities, requirements, liabilities, or penalties established pursuant to any applicable state statutes, or regulation, including departmental rules and regulations promulgated by the Department pursuant to Chapter 403, F.S.

Rationale and Justification

Change requested by the department to clarify that the permittee must, in addition to the specific terms of the certification, comply with the general requirements of applicable statutes and rules. Should any such terms or conditions of the certification conflict with such requirements of applicable statutes or regulations, the terms of the certification shall prevail. The department and the permittee agree that neither this condition #13 nor any other term of this certification shall constitute a waiver of permittee's right to challenge, in an appropriate administrative forum or in a court of competent jurisdiction, any existing or future statutory provision or rule or regulation of the department or any other agency which may apply to the certified site.

19. and 20. Renumbered; same as original conditions

21. and 22.

21. 23- 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 April 1, 1977, 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 ~~within twelve~~

~~(12)-months-of-the-date-of-commencement-of-plant-operation~~ no
later than July 1, 1978.

Rationale and Justification

This modification will allow the permittee to evaluate nekton return methods after the expected plant shakedown period.

22. 24- After December 31, 1976, or six months after
commencement of boiler operations, whichever event 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. ~~No-discharge-of-total~~
~~residual-chlorine-is-allowed-from-one-unit-while-another-unit-at~~
~~the-same-station-is-being-chlorinated-~~ 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
~~Regional-Administrator~~ Subdistrict 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) ~~chemical-sewageing~~ 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 residuals shall be submitted within twelve
twenty-four months of commencement of plant operation. Subsequently,
chlorination procedures to reduce total chlorine residuals shall be
implemented to the extent practicable.

Rationale and Justification

Conforms language to Environmental Reorganization Act.
Permits boiler shakedown period prior to requiring
compliance; recognizes that both units use a common
cooling tower; specifies permissible sampling points;
coordinates DER and EPA study factors; allows study
submission one year after initial twelve month warranty
period.

23. Renumbered; same as original condition 25.

24. 26- There shall be no discharge release from containment devices or structures of polychlorinated biphenyl transformer fluids compounds to waters-of-the-state the environment.

Rationale and Justification

Requested by department as being consistent with present environmental control of such compounds.

25. through 29. Renumbered; same as original conditions
27. through 31.

~~32--The-permittee-as-condition-precadent-to-issuance-of-this certification-shall-submit-an-application-fee,-the-total-amount-of which-shall-not-exceed-\$25,000-to-be-applied-toward-the-costs-of any-study-investigation,-hearing-or-processing-procedures-conducted pursuant-to-Section-493-501-through-493-5167-F.S.~~

Rationale and Justification

Condition already met.

30. 33- Renewal Review of Site Certification:

~~This-certification-shall-expire-five-years-from-date-of-issuance.- It-is-renewable-by-the-Department-upon-receipt-of-a-request-from the-permittee.--The-permittee-shall-file-a-written-request-for renewal-of-site-certification-no-later-than-120-days-prior-to-the expiration-date.--Within-60-days-of-receipt-of-a-request-for renewal-of-site-certification-the-Department-shall-request-addi- tional-necessary-information-~~

~~The-Department-shall-renew-the-site-certification-upon-a finding-of-the-permittee's-compliance-with-the-conditions-of this-original-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.

Rationale and Justification

Makes this condition consistent with those currently being imposed by the DER on other power plant certification applicants.

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.

Rationale and Justification

Makes this condition consistent with those currently being imposed by the DER on other power plant certification applicants.

ATTACHMENT A

INFORMATION REGARDING
THE COOLING TOWER BLOWDOWN DISCHARGE
AT THE PALATKA PLANT

The discharge from the cooling tower blowdown of the Palatka Plant will be located approximately 20 to 30 feet south of the existing fuel unloading dock (see Figure 2 for detailed location relative to other discharge pipes).

The proposed discharge will be located at a level approximately 12 feet below the surface of the water as measured by mean low water level. The bottom of the pipe will be two feet from the river bottom and pointed toward marker "11" (Fl 4 sec 16 feet x 5m) with respect to the plan view and parallel to the water surface with respect to elevation view.

The attached portion of the National Ocean Survey Chart for the pertinent area provides sufficient data to evaluate the approximate profile characteristics of the river bottom (see Figure 3). Figure 4 provides data on soundings near the Palatka Plant Unit 1 & 2 condenser cooling water discharge area. These data were collected by Florida Power & Light Company personnel on December 27, 1973.

At the proposed point of discharge the East-West distance across the river is approximately 700 meters. The distance from the proposed discharge to a point across the river in line with marker "11" is approximately 1350 meters (see Figure 1).

A sketch of an approximate bottom profile is attached as Figure 5. The location of the pipe will provide for the maximum thermal dilution. Although there are no velocity data for currents available at the exact point of discharge, sufficient and reliable data regarding the flow rates of the St. John's river in the immediate vicinity of the plant are contained in the enclosed study "Surface Water Resources of St. John's River Florida" prepared for Florida Power & Light Company by Reynolds, Smith and Hills of Jacksonville, Florida. The pertinent pages are pages 12 and 13 relating to a description of Station No. 2444.50, page 15, Table 2, continued, Table 3 on page 18, and Exhibit 6 describing the average discharge (cfs) vs. drainage area. The plant location is approximately where the plotted line intersects with 6,000 cfs average discharge rate on the horizontal axis of Exhibit 6.

It is planned to attach a reducer at the end of the 10-inch diameter pipe to increase the mixing capabilities of the discharge stream. The exact size will depend on the amount of head pressure loss that is sustainable on the system.

Attached as Exhibit 1 are water temperature plume calculations for the Putnam Plant cooling tower blowdown into the St. Johns River. It is significant that the cross-sectional area of the plume (defined as 0.1°F above ambient) is only about 0.3% of the cross-sectional area of the river at the Palatka Plant. This is determined as follows:

$$\begin{array}{lcl} \text{\% of cross-sectional river area} & & \text{Estimated cross sectional} \\ \text{affected by plume} & = & \frac{\text{area of plume} \times 100}{\text{Estimated cross-sectional}} \\ & & \text{area of river,} \end{array}$$

where the cross-sectional area of the plume is estimated to be 180 sq. ft. to the 0.1°F above ambient isotherm, and the cross-sectional area of the river is estimated to be approximately 52,000 sq. ft. at the mean low water level.

Attached as Figure 6 is a sketch of the condenser-cooling tower system indicating typical operating parameters. Of particular importance is the fact that only 0.4% of the original condenser heat load of the condenser is discharged to the river.

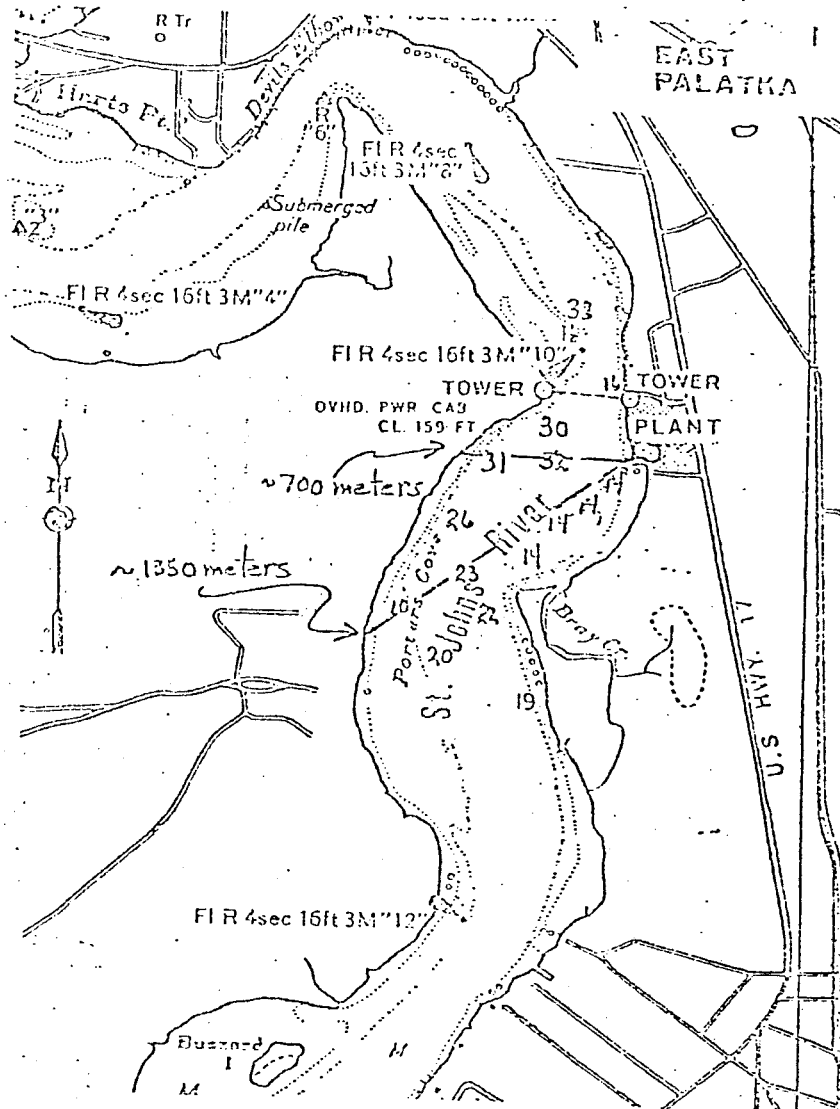


Figure 1.
PALATKA PLANT
MAP OF AREA

Scale
1" = 300 METERS

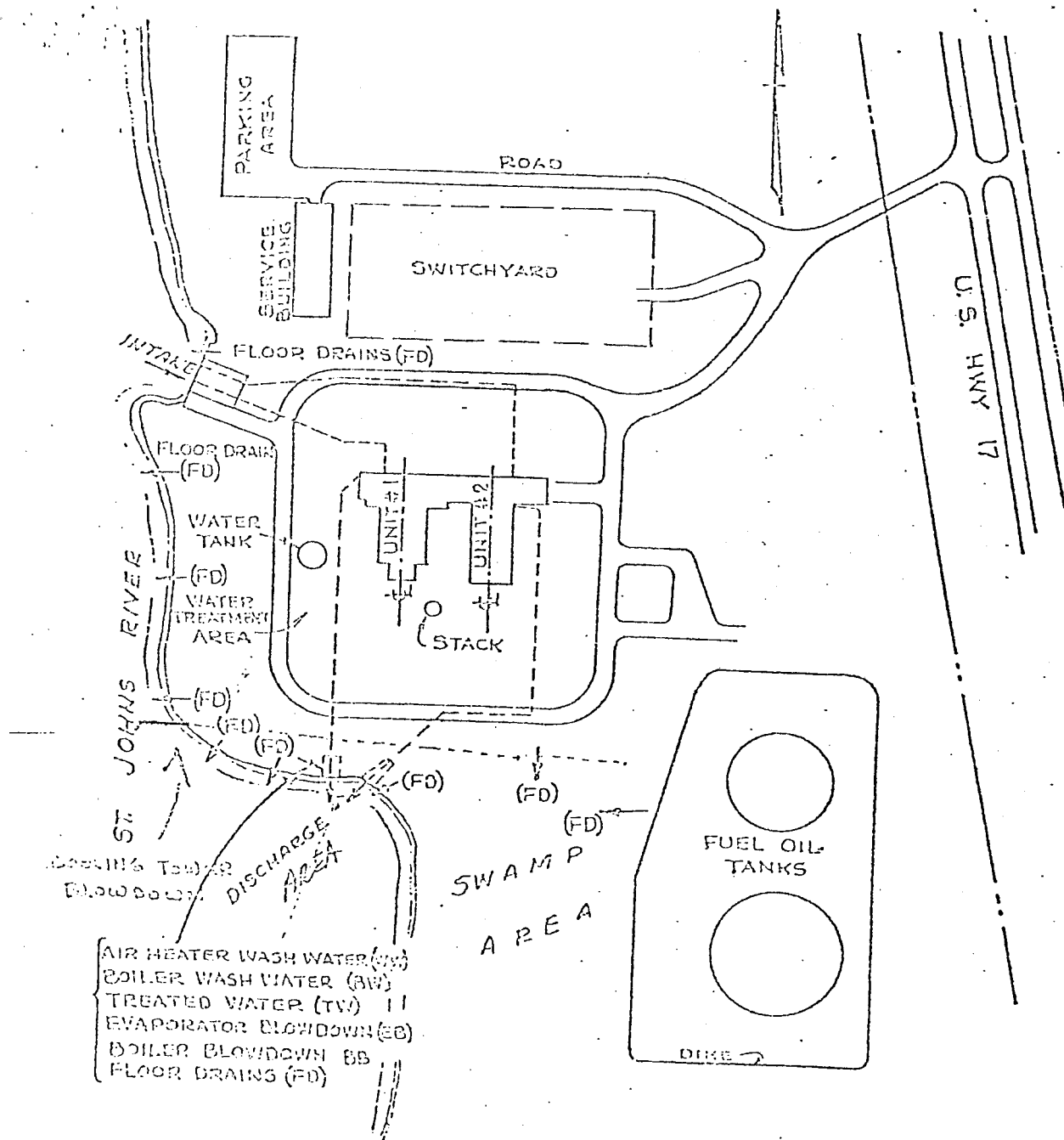


FIGURE 2

PALATKA PLANT LAYOUT

APPROVED:

DIVISION ENGINEER

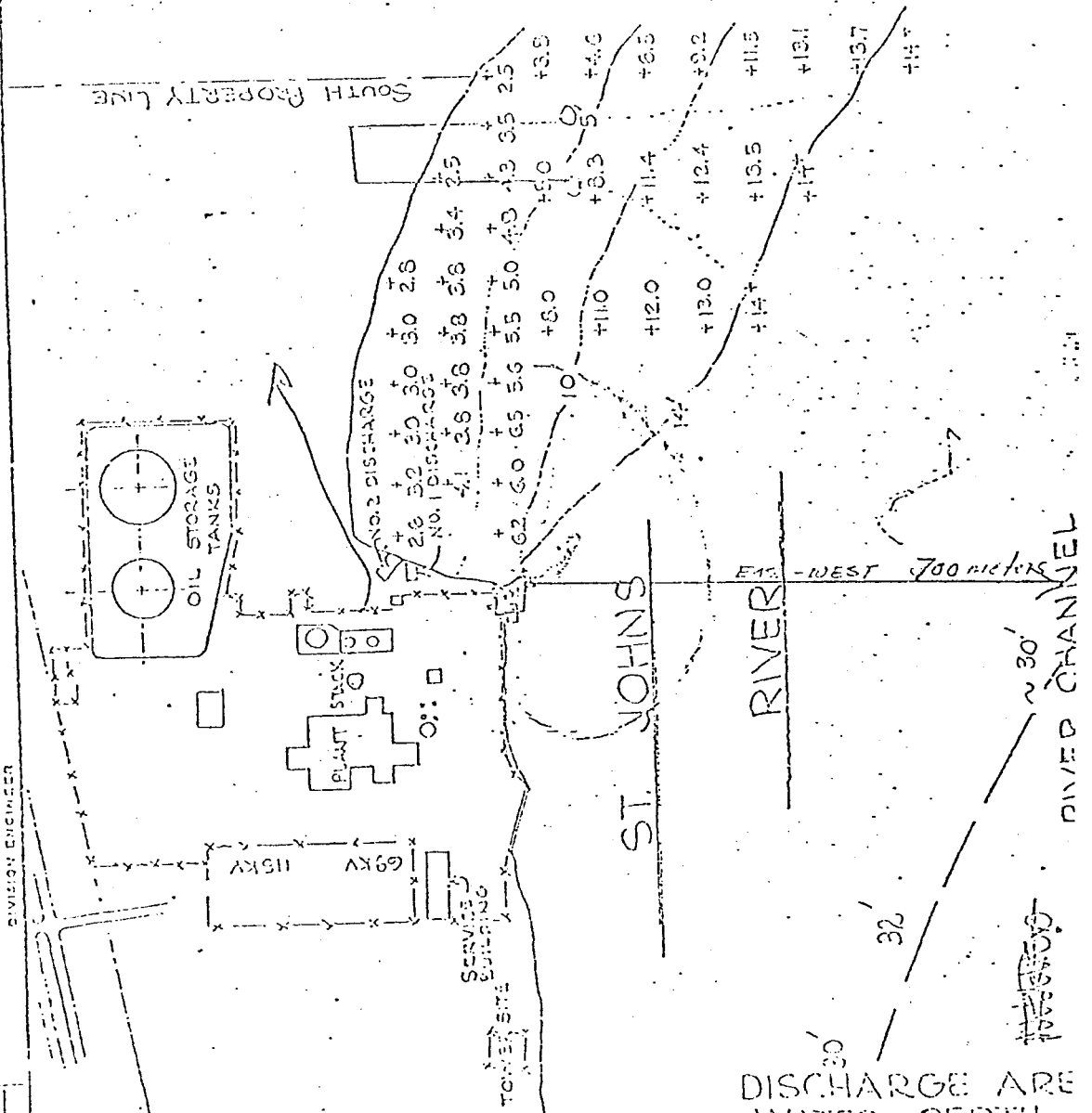
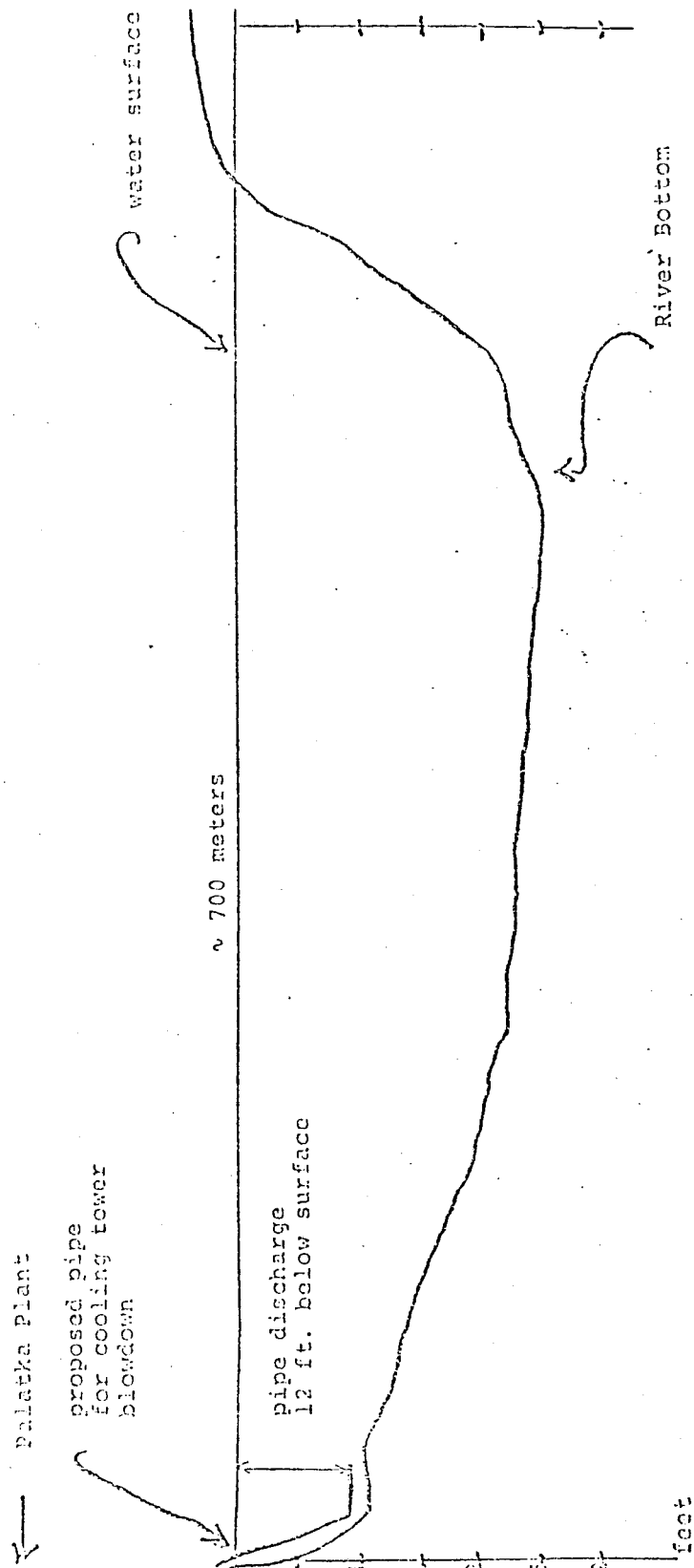


FIGURE 4

DISCHARGE ARE
WATER DEPTH
PALATKA PLANT
FLORIDA POWER & LIGHT

CROSS SECTIONAL VIEW OF RIVER
AT PALATKA PLANT
(EAST-WEST CROSS SECTION)



Approximated from data obtained
Coast and Geodetic Survey

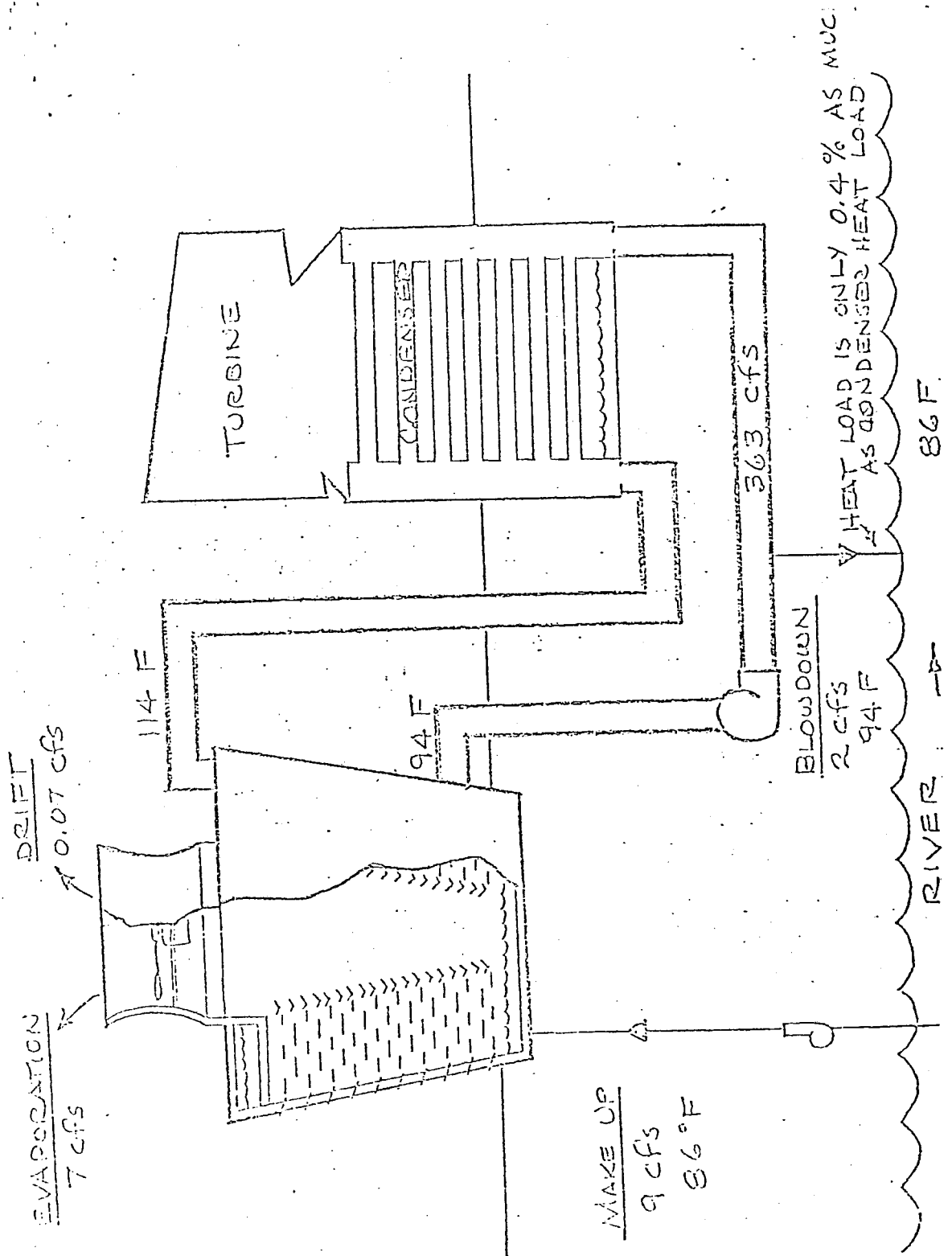
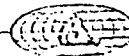


FIGURE 6

EXHIBIT 1

EAST PALATKA PLANT
COMBINED CYCLE UNITS
WATER TEMPERATURE PLUME CALCULATIONS
FOR
COOLING TOWER BLOWDOWN TO ST. JOHNS RIVER

October 1975



PROCEDURES USED:

Submerged buoyant discharges achieve dilution through initial jet momentum and buoyant rise of the plume to the water surface. The dilution at the water surface from a submerged buoyant discharge is influenced by the depth of submergence, the angle of the discharge with respect to the bottom, the absence or presence of ambient currents, and the discharge densimetric Froude number. The procedures used to calculate the dilution achieved in the rise of the plume to the surface and the distribution of excess temperatures at the surface were based on principals and theories of submerged buoyant discharges set forth and discussed in "Workbook of Thermal Plume Prediction, Volume I, Submerged Discharge, EPA-R2-72-005a, August 1972."

SITE CONDITIONS:

The point of discharge is on the east side of the St. Johns River about 3.4 river miles upstream from the U. S. G. S. Gaging Station at Palatka. A cross-sectional view of the river at the point of discharge is shown on attached drawing. Published flow records for the gaging station began in 1968, and represent flow from a contributing drainage area of 7,320 square miles. The maximum flow recorded was 31,300 cfs on November 5, 1970 and the minimum flow was a reverse flow due to tidal influence of 20,400 cfs recorded on March 24, 1968. The average discharge for the past six years of record is 8,200 cfs. A long term average would probably be in the range of 6,000 cfs.

Daily water temperatures, discharge, and maximum and minimum tide levels for the gage at Palatka are reported in Water Resources

Data for Florida, Parts I and Part II. Copies of this data for water year 1974 are attached hereto.

CRITERIA:

A conservative approach was taken in calculating the plume parameters. Although the period of slack tide is relatively short, the calculations were made for discharge into still water. The following criteria were used:

Discharge Rate - 1,430 gpm, 3.2 cfs

Pipe Diameter - 10"

Angle of Discharge - Horizontal

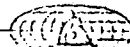
Depth of Water at Low Tide - 9 feet

Excess Temperature - 10°F

River Flow - Zero

RESULTS:

Water temperatures and plume dimensions resulting from the calculations are shown on attached drawing along with a plan view of the excess temperatures (rise above ambient) at the water surface.



Attachments

- (1) Water Temperatures, W.R.D., Florida, 1974, Part 2, page 49
- (2) Discharges , W.R.D., Florida, 1974, Part 1, page 80
- (3) Maximum Gage Height Part 1, page 81
- (4) Minimum Gage Height Part 1, page 82
- (5) Cross-Sectional View of River at Palatka Plant
- (6) Plume Parameters - Cooling Tower Blowdown

6234559 22. Johns River at Falsch., Min.

DEPT. OF AGRICULTURE, 1930 sq. ft. (15,500 sq. ft.), approximately, includes layover freight, a dried alcohol area of about 67 sq. ft. (1,150 sq. ft.), which is concentrated in the west for postage.

FIGURE 2. *Phytophthora*-chestnut analysis: June to October 1962, December 1964 to July 1973 (weekly), January 1974 to current year.
Water temperature: October 1959 to July 1973 (weekly), January 1974 to current year.

PERIOD OF RECORD.—Chemical analyzed: June to October 1961, December 1964 to July 1971 (weekly), January 1971 to current year.
Water temperature: October 1959 to July 1971 (weekly), January 1971 to current year.

EGGINGS, January to September 1974.--Spentite conductance: Eastern daily, 1,750 micromhos June 13, 21, 22; w/olizus daily, 290 micromhos June 13, 21, 22.

Partial of records: Specific conductance (11/3): Maximum daily, 1,250 micromhos June 15, 21, 22; minimum daily, 220 micromhos Feb. 10, 13.

water temperatures (1974): Vietnam, 30.5°C Aug. 31, Sept. 1-2; China, 14.0°C Feb. 27.

TEMPERATURE (DEG. C) OF WATER, PERIOD JULY 1 TO SEPTEMBER 1976
(ONCE-DAILY)

[illegible]

CRK. ST. JOHN'S RIVER BASIN

0224450 St. John's River at Palatka, Fla.

Location—Lat. 28°33'40", Long. 81°33'10", in NW quarter sec. 7, T.10 S., R.22 E., Putnam County, near center of span under bridge on U.S. Highway 17 at Palatka, 6.3 mi (10.1 km) downstream from Dunn Creek and 78 mi (126 km) upstream from mouth.

Drainage Area—7,045 sq mi (18,273 sq km), revised, includes Bayne Wildlife, a divided alluvial area of about 650 sq mi (1,681 sq km), which is noncontributing except for passage.

Period of Record—January 1952 to current year.

Gauging—Stage and collection-meter recorded. Datum of gage is 10.50 ft (3.048 m) below mean sea level.

Average Discharge—5 years, 8,175 cfs (231.5 cu m/s), 5,425,000 acre-ft/yr (1.10 cu km/yr).

Extremes—Current year: Maximum daily discharge, 24,200 cfs (700 cu m/s) Oct. 31; maximum gage height, 13.01 ft (3.955 m) Sept. 24; Maximum daily reverse flow, 9,210 cfs (261 cu m/s) Nov. 14; minimum gage height, 7.25 ft (2.213 m) Jan. 25, Mar. 21.
Period of record: Maximum daily discharge, 31,300 cfs (915 cu m/s) Nov. 5, 1970; maximum gage height, 13.50 ft (4.237 m) Sept. 30, 1959; minimum daily reverse flow, 20,400 cfs (578 cu m/s) Jan. 6, 1959, corrected; minimum gage height, 8.54 ft (2.603 m) Feb. 16, 1971.

Remarks—Records fair. Flow affected by tide. Discharge computed using continuous velocity record obtained from recording gagefloats. This stage record published in the maximum and minimum tide event for each calendar day. Records of chemical analysis and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22,400	20,100	13,900	15,000	-2,270	12,800	14,900	10,700	6,833	19,300	22,900	22,100
2	15,500	17,400	12,600	11,000	4,940	13,800	17,300	8,070	9,430	20,800	21,300	21,500
3	12,000	15,000	6,710	5,000	10,900	12,600	9,933	7,440	4,275	21,000	19,400	15,700
4	10,500	16,900	11,100	12,000	-547	11,000	10,700	3,470	-6,520	21,700	18,800	18,000
5	7,700	13,900	17,000	6,000	144	7,770	4,150	2,900	-7,940	21,300	17,100	11,300
6	3,840	79	1,900	10,000	4,550	8,350	755	-3,540	-1,570	21,600	19,900	13,500
7	1,750	6,770	3,410	13,000	7,310	6,950	6,150	-1,750	4,140	21,900	18,600	18,400
8	8,400	5,900	-713	10,000	5,930	2,900	9,270	-231	5,330	19,000	19,500	20,000
9	13,000	10,700	3,900	7,000	912	5,900	670	844	7,110	19,100	17,800	15,600
10	10,500	-6,100	10,500	14,000	-504	5,250	292	4,900	8,570	21,300	19,700	12,400
11	9,700	-7,650	11,500	6,000	3,510	5,630	5,200	15,100	13,700	20,900	14,200	13,300
12	9,750	-850	15,100	7,000	4,500	263	6,570	14,200	6,000	15,100	10,500	15,900
13	9,700	13,600	14,700	6,000	6,700	-6,670	8,130	-3,120	6,500	3,320	17,000	19,700
14	9,210	10,400	15,000	10,000	11,200	-9,210	11,400	1,800	1,910	13,100	19,400	16,500
15	16,100	17,500	13,100	12,000	13,600	6,040	9,600	2,530	5,020	17,900	24,300	17,400
16	17,400	10,900	3,270	16,400	7,000	13,700	4,590	5,250	6,070	23,800	21,900	16,500
17	9,700	12,600	10,900	16,700	-4,140	13,700	4,100	4,810	11,400	21,300	19,900	21,100
18	-713	11,000	13,700	11,200	2,620	19,300	-2,650	5,300	10,800	19,700	16,700	16,900
19	3,400	11,700	8,600	3,510	10,300	12,300	1,620	7,760	5,600	20,300	16,900	16,500
20	3,310	12,100	13,700	9,310	8,330	11,100	3,750	2,740	7,150	18,300	16,800	15,100
21	6,810	13,500	20,700	11,200	7,440	13,600	3,230	-5,230	9,640	16,800	11,000	21,300
22	4,150	11,100	19,400	8,530	10,100	-3,470	5,970	-3,440	7,100	5,640	15,500	22,000
23	4,610	9,000	15,000	8,040	7,200	-3,130	6,450	4,330	8,020	9,850	18,900	885
24	3,570	11,500	16,000	9,940	5,460	315	3,840	4,200	17,500	14,800	24,800	-4,150
25	6,700	12,700	14,900	10,700	1,450	560	-6,810	2,810	2,910	21,600	23,000	137
26	11,300	14,100	10,000	11,000	4,910	-4,910	-4,850	7,470	874	23,000	24,500	17,200
27	16,700	14,200	12,000	11,100	1,610	4,460	49	5,150	7,110	23,100	22,300	27,000
28	19,000	16,800	14,000	12,700	8,400	9,070	6,830	1,410	11,700	22,500	24,200	27,900
29	22,300	8,070	16,000	12,800	-----	17,700	6,160	6,290	10,300	17,300	21,600	25,300
30	24,700	6,740	13,000	10,100	-----	17,600	10,300	9,640	19,900	18,500	25,200	17,700
31	28,200	-----	11,000	5,000	-----	16,800	-----	10,300	-----	20,400	25,000	-----
TOTAL	511,307	339,720	372,657	313,530	167,425	209,702	153,072	133,393	203,614	573,123	603,900	493,473
MEAN	11,010	11,020	12,020	10,110	5,255	6,767	5,102	4,293	6,707	18,490	19,640	15,450
MIN	28,200	29,100	20,700	10,700	13,600	17,700	16,900	15,100	19,900	23,500	25,200	27,900
MAX	-753	-7,550	-713	3,510	-4,140	-9,210	-5,810	-5,230	-7,940	3,320	10,500	-4,150
AC-FT	677,000	656,000	737,200	621,900	272,400	415,100	303,600	254,000	403,900	1,137M	1,208M	978,800

Cal. Yr 1973 TOTAL 3,376,445.00 MEAN 9.251 MAX 23.200 MIN -17.700 AC-FT 6,697,033
Cal. Yr 1974 TOTAL 3,830,690.00 MEAN 10.610 MAX 23.200 MIN -9.210 AC-FT 7,697,030

NOTE—Negative figures indicate reverse flow.

MAXIMUM GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.00	11.65	11.23	11.38	10.72	10.79	10.65	10.73	10.80	11.64	11.44	11.26
2	12.06	11.56	11.23	11.15	10.81	10.55	10.66	10.70	10.63	11.60	11.42	11.23
3	12.11	11.56	11.45	11.17	10.76	10.53	10.76	10.73	11.61	11.49	11.51	11.60
4	12.15	11.67	11.62	10.96	10.73	10.55	10.83	10.71	11.26	11.43	11.54	11.43
5	12.17	11.67	11.62	10.89	11.13	10.61	11.61	10.96	11.56	11.52	11.87	11.79
6	12.62	11.87	11.27	10.80	11.16	10.55	11.65	11.12	11.55	11.58	11.64	11.97
7	12.59	11.95	11.39	11.65	11.19	10.73	10.85	11.20	11.49	11.56	11.65	11.88
8	12.62	11.69	11.71	11.21	11.67	10.72	10.95	11.22	11.29	11.65	11.57	12.61
9	12.68	11.77	11.66	11.19	11.15	10.71	10.97	11.33	11.24	11.61	11.65	12.25
10	12.69	12.31	11.60	11.25	11.16	10.70	10.80	11.27	11.10	11.57	11.75	12.32
11	12.66	12.55	11.55	11.20	11.11	10.74	10.97	11.05	11.01	11.44	11.84	12.35
12	12.62	12.63	11.66	11.25	11.93	10.79	10.97	10.61	11.03	11.71	12.64	12.37
13	12.55	12.15	11.61	11.23	11.69	11.27	10.83	10.97	11.10	11.67	12.63	12.30
14	12.50	11.90	11.26	11.21	10.84	11.38	10.59	11.63	11.26	11.82	11.94	12.35
15	12.35	11.73	11.26	11.13	10.63	11.25	10.44	10.65	11.38	11.73	11.96	12.35
16	12.21	11.51	11.45	10.93	10.93	10.92	10.56	10.97	11.45	11.71	11.95	12.35
17	12.39	11.53	11.37	10.65	11.23	10.70	10.79	10.95	11.25	11.64	11.98	12.29
18	12.53	11.70	11.29	10.77	11.05	10.57	10.79	10.93	11.22	11.59	12.60	12.25
19	12.46	11.66	11.45	11.64	11.39	10.69	10.93	10.91	11.34	11.61	12.09	12.41
20	12.55	11.63	11.45	11.00	11.00	10.69	10.89	10.91	11.33	11.56	12.18	12.35
21	12.65	11.57	11.25	10.95	10.99	10.47	10.95	11.32	11.33	11.57	12.23	12.10
22	12.71	11.60	10.80	10.97	10.70	10.71	11.01	11.46	11.30	12.60	12.73	11.95
23	12.65	11.65	11.25	10.95	10.98	11.25	10.89	11.37	11.27	12.62	12.14	12.60
24	12.97	11.58	11.39	10.96	10.85	11.27	10.77	11.13	11.13	11.59	11.95	12.61
25	12.98	11.59	11.62	10.91	10.58	11.59	11.10	11.11	11.62	11.71	11.83	12.92
26	12.82	11.49	11.19	10.83	10.84	11.65	11.16	11.10	11.88	11.50	11.73	12.61
27	12.65	11.47	11.38	10.79	10.81	11.59	11.15	11.63	12.06	11.33	11.65	12.55
28	12.54	11.32	11.68	10.53	10.88	11.43	11.05	11.14	11.99	11.40	11.55	12.33
29	12.33	11.21	11.55	10.54	-----	11.27	10.93	11.07	11.95	11.40	11.55	12.15
30	11.08	11.35	11.41	10.58	-----	10.95	10.70	11.02	11.69	11.50	11.51	12.17
31	11.34	-----	11.42	10.60	-----	10.80	-----	10.83	-----	11.59	11.34	-----
MEAN	12.44	11.70	11.38	10.97	10.98	10.92	10.96	11.02	11.35	11.63	11.89	12.18
MAX	12.98	12.58	11.84	11.39	11.39	11.65	11.16	11.44	12.05	12.62	12.23	12.01
MIN	11.34	11.21	10.99	10.54	10.63	10.47	10.44	10.61	10.60	11.33	11.34	11.23

CAL YR 1973 MEAN 11.55 MAX 12.98 MIN 10.56
WTR YR 1974 MEAN 11.44 MAX 12.01 MIN 10.44

GAGE ST. JOHN'S RIVER TIGHT
0176150 St. Johns River at Palatka, Fla.

MINIMUM GAGE HEIGHTS IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.83	10.35	10.01	9.94	9.55	9.53	9.37	9.35	9.63	10.20	10.10	9.91
2	11.65	11.36	11.07	9.81	9.52	9.34	9.33	9.37	9.65	10.19	10.25	9.93
3	11.15	10.46	10.31	9.83	9.42	9.25	9.34	9.36	9.62	10.26	10.25	9.99
4	11.23	10.33	10.19	9.49	9.76	9.30	9.59	9.41	10.09	10.23	10.35	10.16
5	11.39	10.41	10.05	9.46	9.78	9.34	9.53	9.59	10.32	10.33	10.35	10.45
6	11.41	10.60	9.95	9.61	9.83	9.34	9.51	9.90	10.22	10.32	10.54	10.69
7	11.65	11.80	10.30	9.84	9.61	9.32	9.47	9.90	10.14	10.28	10.33	10.62
8	11.58	10.66	10.56	9.79	9.51	9.33	9.35	9.03	10.11	10.30	10.35	10.63
9	11.62	10.50	10.56	9.89	9.80	9.29	9.32	10.05	10.02	10.43	10.35	11.00
10	11.62	10.62	10.34	9.95	9.83	9.38	9.51	10.06	9.65	10.91	10.35	11.13
11	11.47	11.22	10.12	9.93	9.64	9.31	9.59	9.72	9.76	10.31	10.63	11.26
12	11.53	11.25	10.62	9.97	9.77	9.47	9.65	9.48	9.84	10.44	10.92	11.27
13	11.53	10.80	9.63	9.77	9.54	9.54	9.51	9.64	9.97	11.03	11.79	11.21
14	11.13	10.55	9.97	9.79	9.69	9.53	9.35	9.83	10.03	10.75	10.67	11.04
15	11.23	10.39	9.94	9.87	9.50	10.09	9.25	9.84	10.10	10.53	10.61	11.06
16	11.02	10.33	10.16	9.73	9.51	9.84	9.37	9.75	10.07	10.27	10.63	11.11
17	11.12	10.37	10.28	9.55	9.54	9.66	9.50	9.79	9.91	10.06	10.67	11.05
18	11.55	10.56	10.68	9.48	9.80	9.48	9.70	9.45	9.97	10.09	10.75	11.05
19	11.54	10.51	10.10	9.77	9.84	9.45	9.51	9.53	9.95	10.05	10.83	11.20
20	11.51	10.45	10.32	9.90	9.70	9.31	9.70	9.67	9.98	10.03	10.85	11.21
21	11.69	10.42	9.72	9.67	9.72	9.23	9.77	10.02	9.95	10.28	11.03	10.99
22	11.57	10.39	9.47	9.70	9.63	9.55	9.52	10.05	9.95	10.59	11.63	10.84
23	11.87	10.39	9.93	9.70	9.62	9.88	9.42	9.47	9.52	10.72	10.98	11.17
24	11.78	10.41	10.29	9.73	9.63	10.05	9.65	9.55	9.85	10.64	10.78	11.77
25	11.88	10.63	9.82	9.65	9.55	9.94	9.55	9.74	10.02	10.38	10.71	12.05
26	11.71	10.26	10.09	9.51	9.59	10.19	9.82	9.77	10.54	10.16	10.56	11.65
27	11.55	10.18	9.88	9.59	9.44	10.35	9.40	9.85	10.99	10.12	10.41	11.75
28	11.41	9.96	9.67	9.23	9.71	10.18	9.78	9.81	10.71	10.04	10.29	11.12
29	11.23	10.26	10.15	9.24	-----	9.72	9.54	9.93	10.43	10.31	10.20	10.94
30	10.76	10.20	10.23	9.29	-----	9.75	9.59	9.49	10.32	10.31	10.05	11.07
31	10.14	-----	9.76	9.35	-----	9.59	-----	9.54	-----	10.17	9.92	-----
MEAN	11.33	10.49	10.07	9.68	9.49	9.41	9.54	9.75	10.09	10.33	10.54	10.86
MAX	11.83	11.25	10.56	9.97	9.90	10.35	9.82	10.05	10.99	10.92	11.02	12.05
MIN	10.14	9.96	9.47	9.23	9.42	9.23	9.25	9.34	9.63	10.03	9.92	9.91

CAL YR 1973 MEAN 10.23 MAX 11.92 MIN 9.21
 WTR YR 1974 MEAN 10.18 MAX 12.05 MIN 9.23

CROSS SECTIONAL VIEW OF RIVER
AT PALATKA PLANT
(EAST-WEST CROSS SECTION)

2014-2015

unapproved
for cooling tower
operation

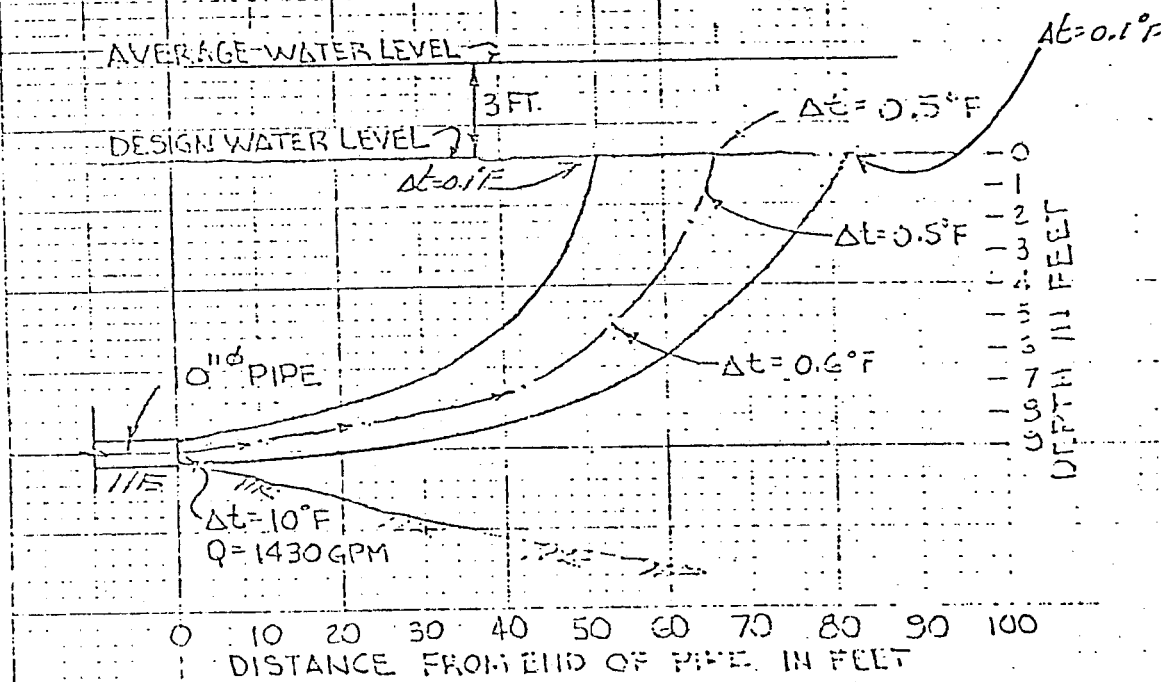
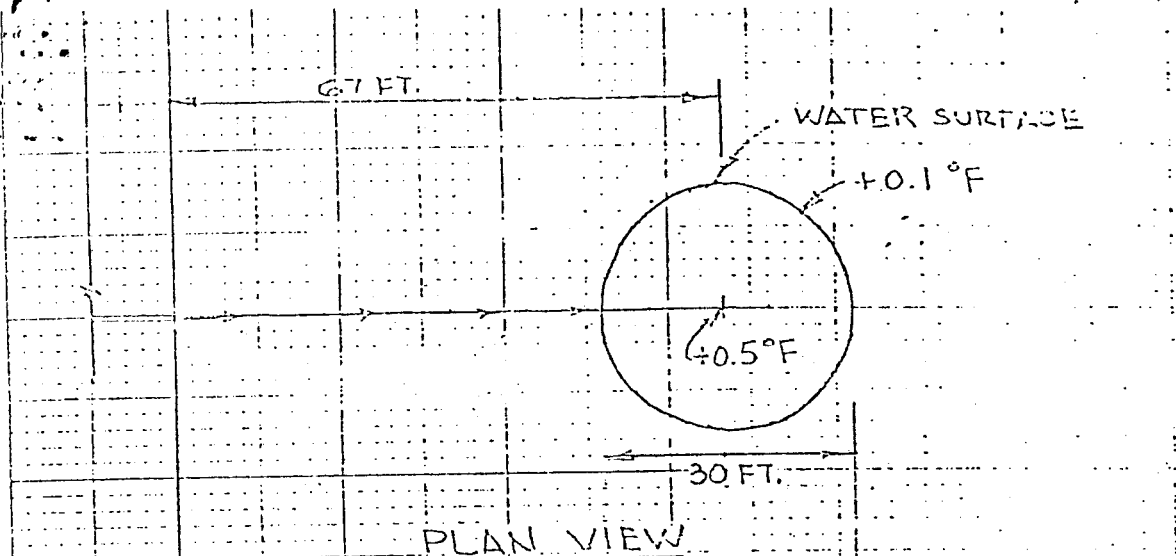
the district

700,000,000

river station.

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Approximated from data obtained.
Coast and Geodetic Survey.



PLUME PARAMETERS
COOLING TOWER BLOWDOWN

BEFORE THE DEPARTMENT OF ENVIRONMENTAL
REGULATION

In The Matter Of:)	
)	
FLORIDA POWER & LIGHT COMPANY,)	
PALATKA STATION:)	Docket No. _____
Modification of conditions)	
of certification No. PPS-74-01)	
)	
PUTNAM COUNTY, FLORIDA,)	
)	
Permittee.)	
_____)	

STIPULATION OF PARTIES MODIFYING
CERTAIN CONDITIONS OF CERTIFICATION

All of the parties who previously entered appearances in the original site certification proceeding conducted pursuant to Part II of Chapter 403, Florida Statutes, and resulting in the issuance of the above noted Certification No. PPS-74-01, hereby stipulate and agree (pursuant to §120.57(3), Florida Statutes, and §17-17.16, Florida Administrative Code), as follows:

1. The signatories to this Stipulation include all of the parties to the above mentioned certification proceeding, including the Department of Environmental Regulation (previously the Department of Pollution Control).
2. On October 16, 1974, the Permittee, Florida Power & Light Company, was issued site certification (No. PPS-74-01) by the Board of the Department of Pollution Control authorizing it to construct and operate an expansion of the Permittee's electric power plant at its Palatka site (also known as the "Putnam Plant") subject to terms of the "Conditions of Certification" attached hereto as Exhibit "A".
3. On June 2, 1975, by letter, Permittee requested certain modifications and amendments to the "Conditions of Certification" previously issued.
4. The requested modifications and amendments are supported by the "Rationale and Justifications for Proposed Modification of the Conditions of Certification of PPS-74-01" attached hereto as Exhibit "B".

5. The "Conditions of Certification" previously made a part of the original Certification Agreement and certification are amended and modified to read as follows:

"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 Chapter 17-2.04(e).
- "2. Stack Height: Minimum stack heights shall be 53 feet above grade. Stacks with a height of at least 150 feet shall be constructed prior to burning residual fuel oil containing more than 0.35% sulfur, except as provided for in "Warranty Testing".

Warranty Testing: The permittee may burn fuel oil containing more than 0.35% sulfur, but not more than 0.7% sulfur, during an initial twelve month warranty testing period: provided, however, that during this test period, the burning of fuel oil containing more than 0.35% sulfur shall be suspended by the permittee during such times that sustained winds may 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, during each period that fuel oil containing more than 0.35% sulfur is burned. Such wind data shall be reported monthly to the Lower St. Johns Subdistrict 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; the permittee shall submit to the Department the details of its measuring plans at least 30 days prior to burning of fuel oil containing more than 0.35% sulfur.

- "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 each stack 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 three days two ambient air, West-Coke, monitoring devices for sulfur dioxide and two suspended particulate sampling devices. After six months of operation, the Department may allow sampling on a six day interval. The location of these ambient air samplers shall be determined by consultation with the Lower St. Johns Subdistrict Manager of the Department. The data collected will be reported to the Subdistrict

Manager quarterly by the last day of each month following the reporting period, utilizing the 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 Subdistrict Manager:

<u>Effluent Characteristics</u>	<u>Limitations</u>	<u>Monitoring</u>
a. 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 pump logs
b. 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 logs) at any point between the blowdown charge at the cooling tower and the P.O.D. cooling water into the river.
c. Phosphate to Blowdown tank	50 ppm	Weekly
d. Dissolved solids	6000 ppm	Daily
e. pH	6.0 - 8.5	Daily
f. 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 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.

"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 Lower St. Johns Subdistrict 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 non-compliance, 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 non-compliance; 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 Lower St. Johns Subdistrict 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 so notified.
- "17. 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.
- "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 Departmental 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 April 1, 1977, 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 July 1, 1978.
- "22. After December 31, 1976 or six months after commencement of boiler operations, whichever event 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 Subdistrict 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 residuals 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/barrow 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
P. O. Box 47
DeLand, Florida 32720

and with:

Mr. J. A. Crookshank, Jr.
Maintenance Engineer, Putnam County
P. O. 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 soil 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."

6. The Governor and Cabinet are hereby requested to take all actions necessary to adopt, confirm, and implement this stipulation and agreement, pursuant to the authority granted to them by Part II, Chapter 403, Florida Statutes, the Florida Electric Power Plant Siting Act as amended by Section 5.(1), the Florida Environmental Reorganization Act of 1975 (Chapter 75-22), including the modification of the previously executed Certification Agreement.

WITNESS our hands and seals effective as of the 7th day of May, 1976.

Signed, sealed and delivered
in the presence of:

Linda Bechtel

Mary A. Mundy
AS to Joseph W. Landers, Jr.

[Signature]

[Signature]
AS to Randolph G. Whittle, Jr.

[Signature]
Joseph W. Landers, Jr., Secretary
Department of Environmental Regulation
2562 Executive Center Circle, East
Tallahassee, Florida 32301

[Signature]
Randolph G. Whittle, Jr., Acting Director
Division of State Planning
Department of Administration
660 Apalachee Parkway
Tallahassee, Florida 32304

Carolyn C. Mason
As to Joseph A. McGlothlin

As to Raymond B. Bunton

As to Florida Power & Light Company

Joseph A. McGlothlin
Joseph A. McGlothlin, Esquire
Attorney, Public Service Commission
700 South Adams Street
Tallahassee, Florida 32304

Raymond B. Bunton
Raymond B. Bunton, Designee
Putnam County Board of County
Commissioners
Palatka, Florida

FLORIDA POWER & LIGHT COMPANY

By: Randall D. Aldridge
Vice-President

Attest: Astrid Pfeiffer
Secretary

(SEAL)
FLORIDA POWER & LIGHT
COMPANY

RATIONALE AND JUSTIFICATIONS
FOR PROPOSED MODIFICATION OF THE CONDITIONS OF
CERTIFICATION OF PPS-74-01

Permittee and the Department of Environmental Regulation (the "Department") propose the following modifications and amendments to the original conditions of certification (only those original conditions which are changed, modified, or renumbered are included below):

~~2.---The stack height shall be not less than 150 feet high.~~

2. Stack Height: Minimum stack heights shall be 53 feet above grade. Stacks with a height of at least 150 feet shall be constructed prior to burning residual fuel oil containing more than 0.35% sulfur, except as provided for in "Warranty Testing".

Warranty Testing: The permittee may burn fuel oil containing more than 0.35% sulfur, but not more than 0.7% sulfur, during an initial twelve month warranty testing period: provided, however, that during this test period, the burning of fuel oil containing more than 0.35% sulfur shall be suspended by the permittee during such times that sustained winds may 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, during each period that fuel oil containing more than 0.35% sulfur is burned. Such wind data shall be reported monthly to the Lower St. Johns Subdistrict 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; the permittee shall submit to the Department the details of its measuring plans at least 30 days prior to burning of fuel oil containing more than 0.35% sulfur.

Rationale and Justification

Based upon the appropriate application of modeling (previously submitted during the public hearing of this matter), to stack heights of approximately 60 feet, and based upon the use of the lower 0.35% sulfur fuel, the permittee believes that the impact on air quality will be less than that shown in the model testified to at the original certification hearings. The modification will allow the permittee to test the units under warranty conditions during the first twelve months of boiler operation, while safeguarding air quality. An estimated capital cost savings to the permittee of \$4,000,000 will be realized through the use of lower sulfur fuel.

4. The permittee shall install and operate continuous monitoring devices on each stack for the following: opacity, nitrogen oxides. Records of such monitoring shall be available for inspection.

Rationale and Justification

Clarification requested by the department.

5. The permittee shall install and operate continuously for a 24-hour period every three days two continuous ambient air, West-Gaeke, monitoring devices for sulfur dioxide and two suspended particulate samplers sampling devices. After six months of operation, the Department may allow sampling on a six day interval. The location of these ambient air samplers shall be determined by consultation with the Northeast-Regional-Administrator-of-the Department Lower St. Johns Subdistrict Manager of the Department. The data collected will be reported to the Regional-Administrator Subdistrict Manager monthly quarterly by the 10th last day of each subsequent month following the reporting period, utilizing the SAROAD or other mutually acceptable format.

Rationale and Justification

The language modification is based upon agreement between permittee and DER Technical Staff as being satisfactory, from a scientific standpoint, to insure that the Department standards will be complied with. Furthermore, the more restrictive limitations of condition #2, resulting in a reduced air quality impact after the twelve month warranty testing period reduce the necessity for continuous monitoring. The change will result in a capital saving to the permittee of approximately \$20,000.

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.

Rationale and Justification

Grammatical; adds clarification.

7. The following parameters shall be reported monthly to the Regional-Administrator Subdistrict Manager:

Rationale and Justification

Conforms language to the Environmental Reorganization Act of 1975.

Effluent Characteristics

Limitations

Monitoring

1. Flow

1430-gpm-to existing plant intake 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 on pump logs.

Rationale and Justification

Relocation of the discharge pipe was made to reduce the cost by approximately \$50,000 and to improve the efficiency of the old plant. This modification, requested by permittee, will require permittee's cooling tower to be operated at the maximum number of concentration cycles allowed by best engineering practice, while taking into account the dependence of cooling tower operation upon the quality of the make-up water taken from the St. Johns River and the seasonal fluctuations thereof.

2. 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.

Rationale and Justification

The change is made on permittee's request and demonstration pursuant to §17-3.05(3)(f), F.A.C. which authorizes the Department to establish zones of mixing for blowdown discharges from recirculated cooling water systems (cooling towers) and to measure compliance at the P.O.D. A more detailed explanation of this change is incorporated in Attachment "A" which is made a part of this Exhibit "B".

Phosphate from to
Blowdown tank

50 ppm

Daily Weekly

Rationale and Justification

This modification requested by permittee will also allow sampling at a point where water chemistry samples are normally taken. Frequency of sampling was decreased to avoid excess data collection on the basis that the phosphate impact on the receiving body of water from blowdown will be negligible. To comply with the initial phosphate monitoring condition would require excess manhours for a negligible environmental impact.

. Dissolved Solids	6000 ppm	Daily
. pH	6.0 - 8.5	Daily
. Floating solids and visible foam	None visible	None

~~6. The phosphate concentration of the 50-gpm "Blowdown Tank" shall not exceed 50 ppm. The dilution as required to the "Blowdown Tank" and "Holdup Tank" will not be allowed. The discharge of phosphate not to exceed 50 ppm and Total Dissolved Solids not to exceed 6000 ppm shall be achieved by appropriate treatment.~~

Rationale and Justification

Duplicative of conditions 7c. and d. as modified; deleted to avoid confusion and misinterpretation.

~~9. Effluents to the existing plant intake shall not be more than 1430 gpm and shall be placed into the intake in such a manner as to preclude direct discharge to the St. Johns River.~~

Rationale and Justification

Duplicative of conditions 7a. and b. as modified; deleted to avoid confusion and misinterpretation.

8. Renumbered; same as original condition 10.

9. ~~11.~~ Noncompliance Notification:

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specification in this certification, the permittee shall provide prompt notification to the Northeast Regional Administrator Lower St. Johns Subdistrict 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 non-compliance, and shall submit with the following information in writing, within ~~forty-eight (48)~~ 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.

Rationale and Justification

Conforms language to Environmental Reorganization Act. The ninety-six hour time limit will allow permittee adequate time to comply information required to be submitted.

10. Renumbered; same as original condition 12.

11. Renumbered; same as original condition 13.

12. ~~14-~~ Bypassing:

Any diversion or bypass of facilities necessary to maintain compliance with the terms and conditions of this certification is prohibited, except ~~(1)~~ (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-Regional-Administrator~~ Lower St. Johns Subdistrict Manager of the Department in-writing of each such diversion or bypass ~~within-24-hours~~ in accordance with the procedure contained in condition #9 of this certification.

Rationale and Justification

Conforms numbers; conforms language to Environmental Reorganization Act, and NPDES permit requirements.

13. Renumbered; same as original condition 15.

14. ~~16-~~ Right of entry:

The permittee shall allow the ~~Director~~ Secretary of the Florida Department of ~~Pollution-Control~~ 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 the 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

Rationale and Justification

Conforms language to Environmental Reorganization Act.

15. 17- 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 provision of §403.512, Chapter 403, Florida Statutes, or for failure to comply with the terms and conditions of the certification.

Rationale and Justification

Technical amendment requested by the department.

16. and 17. Renumbered; same as original conditions
18. and 19.

18. 20- Nothing in this certification shall be construed to preclude the institution of any legal action or relieve the permittee from any the responsibilities, requirements, liabilities, or penalties established pursuant to any applicable state statutes, or regulation, including departmental rules and regulations promulgated by the Department pursuant to Chapter 403, F.S.

Rationale and Justification

Change requested by the department to clarify that the permittee must, in addition to the specific terms of the certification, comply with the general requirements of applicable statutes and rules. Should any such terms or conditions of the certification conflict with such requirements of applicable statutes or regulations, the terms of the certification shall prevail. The department and the permittee agree that neither this condition #13 nor any other term of this certification shall constitute a waiver of permittee's right to challenge, in an appropriate administrative forum or in a court of competent jurisdiction, any existing or future statutory provision or rule or regulation of the department or any other agency which may apply to the certified site.

19. and 20. Renumbered; same as original conditions
21. and 22.

21. 23- 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 April 1, 1977, 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 ~~within six~~

~~(12)-months-of-the-date-of-commencement-of-plant-operation no~~
later than July 1, 1978.

Rationale and Justification

This modification will allow the permittee to evaluate nekton return methods after the expected plant shakedown period.

22. 24- After December 31, 1976, or six months after
commencement of boiler operations, whichever event 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. ~~No-discharge-of-total~~
~~residual-chlorine-is-allowed-from-one-unit-while-another-unit-at~~
~~the-same-station-is-being-chlorinated.~~ 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
~~Regional-Administrator~~ Subdistrict 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) ~~chemical-seawaging~~ 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 residuals shall be submitted within twelve
twenty-four months of commencement of plant operation. Subsequently,
chlorination procedures to reduce total chlorine residuals shall be
implemented to the extent practicable.

Rationale and Justification

Conforms language to Environmental Reorganization Act.
Permits boiler shakedown period prior to requiring
compliance; recognizes that both units use a common
cooling tower; specifies permissible sampling points;
coordinates DER and EPA study factors; allows study
submission one year after initial twelve month warranty
period.

23. Renumbered; same as original condition 25.

24. 26- There shall be no discharge release from containment devices or structures of polychlorinated biphenyl transformer fluids compounds to waters-of-the-state the environment.

Rationale and Justification

Requested by department as being consistent with present environmental control of such compounds.

25. through 29. Renumbered; same as original conditions
27. through 31.

~~32.--The-permittee-as-condition-precedent-to-issuance-of-this certification-shall-submit-an-application-fee-the-total-amount-of which-shall-not-exceed-\$25,000-to-be-applied-toward-the-costs-of any-study-investigation-hearing-or-processing-procedures-conducted pursuant-to-Section-403-501-through-403-516-F.S.~~

Rationale and Justification

Condition already met.

30. 33- Renewal Review of Site Certification:

~~This-certification-shall-expire-five-years-from-date-of-issuance. It-is-renewable-by-the-Department-upon-receipt-of-a-request-from the-permittee.--The-permittee-shall-file-a-written-request-for renewal-of-site-certification-no-later-than-120-days-prior-to-the expiration-date.--Within-60-days-of-receipt-of-a-request-for renewal-of-site-certification-the-Department-shall-request-additional-necessary-information.~~

~~The-Department-shall-renew-the-site-certification-upon-a finding-of-the-permittee's-compliance-with-the-conditions-of this-original-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.

Rationale and Justification

Makes this condition consistent with those currently being imposed by the DER on other power plant certification applicants.

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.

Rationale and Justification

Makes this condition consistent with those currently being imposed by the DER on other power plant certification applicants.