

**BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In Re: Tampa Electric Company)
 Big Bend Station Unit 4)
 Modification of Conditions)
 of Certification)
 Hillsborough County, Florida)

DEP FILE NO. PA79-12J
OGC CASE NO. 99-1780

DEPARTMENT OF
ENVIRONMENTAL PROTECTION
FEB 08 2000
SITING COORDINATOR

**FINAL ORDER MODIFYING
CONDITIONS OF CERTIFICATION**

On August 17, 1981, the Governor and Cabinet, sitting as the Siting Board, issued a final order approving certification for the Tampa Electric Company Big Bend Station Unit 4 electrical power plant site. That certification order approved the construction and operation of a 425 megawatt (MW), coal-fired power plant unit and associated facilities located at the existing Big Bend Station in Hillsborough County, Florida.

On July 19, 1999, NPDES Permit No. FL000817 REV A for this facility was revised. The revision concerned discharge of the waste stream from the Flue Gas Desulfurization (FGD) treatment facility. Pursuant to Section 403.516(1)(b), Florida Statutes and Rule 62-17.211(4), F.A.C., the Department is modifying the conditions of certification for the facility to conform to changes in the NPDES permit.

Copies of the proposed modifications were made available for public review. On October 29, 1999, all parties to the original proceeding were sent a Notice of Receipt of Request for Modification of Power Plant Certification. A Notice of Intent to Issue Proposed Modification of Power Plant Certification was mailed to all parties to the original proceeding on November 3, 1999, and was published in the *Florida Administrative Weekly* on November 12, 1999. The notice specified that parties to the original certification hearing had 45 days from the issuance of the notice by mail to such party's last address of record to object to the proposed modification. Any other person whose interests would be substantially affected had 30 days from the date of publication of the public notice to object in writing. No written objections to the proposed modifications have been received by the Department. Accordingly, in the absence of any timely objection,

IT IS ORDERED:

The proposed changes to Tampa Electric Company's ("TECO's") Big Bend Station Unit 4 as described in the September 10, 1999, request for modification are APPROVED.

Pursuant to Section 403.516(1)(b), F.S., the conditions of certification for TECO's Big Bend Station Unit 4 are MODIFIED as follows:

I. Air

The construction and operation of the Big Bend Unit 4 at the Tampa Electric Company steam electric power plant site shall be in accordance with all applicable provisions of Chapters ~~17-2, 17-4, 17-5 and 17-7,~~ 62-4, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-296, 62-297, 62-302, and 62-701, Florida Administrative Code. In addition to the foregoing, the permittee shall comply with the following conditions of certification:

A. Emission Limitations

No change.

B. Air Monitoring Program

1. - 3. No change.

4. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports, in accordance with ~~DER-DEP~~ publication, Standard Sampling Techniques and Methods of Analysis for the Determination of Air Pollutants from Point Sources, July, 1975.

5. - 6. No change.

C. Stack Testing:

1. No change.

2. Performance tests shall be conducted and data reduced in accordance with methods and procedures in accordance with ~~DER's-DEP's~~ Standard Sampling Techniques and Methods of Analysis for Determination on Air Pollutants from Point Sources, July, 1975.

3. - 5. No change.

D. Reporting

1. - 2. No change.

3. Beginning one month after certification, the permittee shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental ~~Regulation~~Protection, 2600 Blair Stone Road, M.S. 48, Tallahassee, Florida 32301.

II. Water Discharges

Any discharges into any waters of the State during construction and operation of Big Bend Unit 4 shall be in accordance with all applicable provisions of Chapter 17 62-301, Florida Administrative Code, and 40 CFR 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category except as provided herein. Also, the permittee shall comply with the following conditions of certification:

A. Plant Effluents and Receiving Body of Water

1. - 3. No change.

4. Chemical Wastes

All discharges of low volume wastes (demineralizer regeneration, floor drainage, lab drains and similar wastes) shall comply with Chapter 17 62-302. If violations of Chapter 17 62-302 occur, corrective action shall be taken. These wastewaters shall be discharged to an adequately sized and constructed treatment facility. Preoperational and operational metal cleaning wastes, low volume wastes, boiler fireside wash, air preheater wash, and stack wash shall be disposed of in an adequately sized percolation pond and spray irrigation facility. The low volume liquid waste stream from the flue gas desulfurization system (FGD) may be discharged from internal outfall IO130 to outfalls DO011, DO012, DO013, or DO014 in accordance with the provisions of Permit No. FL0000817 REV A.

5. - 8. No change.

9. FGD Chloride Bleedstream

The bleedstream from the FGD system shall be treated, ~~to control pH, turbidity, solids and toxic metals prior to discharge into the cooling water system.~~ The following effluent limitations will apply:

Effluent	Daily Maximum	Maximum 30-Day Daily Average
TSS	100 mg/l	30 mg/l
Oil and Grease	20 mg/l	15 mg/l
pH	6-9	6-9

The design plans and specifications of the treatment system shall be submitted to the Department for review and approval prior to construction. discharged and monitored in accordance with the provisions of Permit No. FL0000817 REV A.

a. Such discharge shall be limited and monitored by the permittee as specified below:

(Chart added here.)

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS	MONITORING REQUIREMENTS		
	Maximum Instantaneous	Measurement Frequency	Sample Type	Sample Point
Flow, MGD	See Item c. below	Continuous	Recorder	NA
Total Suspended Solids, mg/l	30.0	Quarter	Grab	EFF-3
Oil & Grease, mg/l	15.0	Quarter	Grab	EFF-3
Total Recoverable Arsenic (total), ug/l	Report ¹	Quarter	Grab	EFF-3
Total Recoverable Chromium, ug/l	Report ¹	Quarter	Grab	EFF-3
Total Recoverable Copper, ug/l	Report ¹	Quarter	Grab	EFF-3
Total Recoverable Lead, ug/l	Report ¹	Quarter	Grab	EFF-3
Total Recoverable Mercury, ug/l	Report ¹	Quarter	Grab	EFF-3
Total Recoverable Nickel, ug/l	Report ¹	Quarter	Grab	EFF-3
Total Recoverable Selenium, ug/l	Report ¹	Quarter	Grab	EFF-3
Gross Alpha, pCi/l	Report ¹	Quarter	Grab	EFF-3
Radium (226&228), pCi/l	Report ¹	Quarter	Grab	EFF-3
pH, standards units (range)	See Item d. below	Quarter	Grab	EFF-3

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1. After four quarters of reporting the permittee may request by minor permit revision a reduction or discontinuance of monitoring for these parameters.

b. The facility shall at all times ensure that treated effluent from Outfall IO130 is being discharged to one of four once-through cooling water (OTCW) outfall discharge pipes that is discharging at a flow rate of approximately 250,000 gpm. This shall be achieved by rerouting the flow from IO130 to another OTCW outfall pipe if flow in the first outfall pipe is being discontinued or reduced.

c. The maximum daily average and monthly average shall be reported.

d. The pH shall not be less than 6.0 nor greater than 9.0 standard units.

e. The Department reserves the right to require toxicity testing during the first year after start-up of the new FGD treatment system if monitoring results required above indicate a potential for toxicity violations at the point of discharge to State waters.

f. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

EFF-3 - At a location after final treatment but prior to discharge to Outfalls DO011, DO012, DO013, or DO014.

10. - 13. No change.

B. Water Monitoring Programs

The permittee shall monitor and report to the Department the listed parameters on the basis specified herein. The methods and procedures utilized shall receive written approval by the Department. The monitoring program may be reviewed annually by the Department, and a determination may be made as to the necessity and extent of continuation, and may be modified in accordance with Condition No. XXV.

1. No change.
2. Biological Monitoring
 - a. Thermal Studies

Sampling shall be done on a bimonthly basis commencing one month after certification and shall continue for a period of one year after Unit 4 is on line. Such sampling shall consist of a baseline survey and an intensive survey. Sampling methodology shall be the same as that in the 1979 aquatic biology studies. Deviations from that methodology shall be approved by the DERDEP.

All raw data shall be available upon request by DERDEP. At the end of the first year of post-operational study, the Department shall review all of the data in the form of an annual report and shall determine if mitigative action must be taken by TECO and shall determine if the impacts of the thermal discharge are in compliance with the requirements of Section ~~17-3-05(1)~~(~~62-302.520~~, F.A.C. and if the thermal mixing zone granted by Condition II.A.3. is appropriate. If the data are sufficient to convince the Department that severe thermal effects have been confined to an acceptably limited area, the monitoring studies shall be terminated. If not, the studies shall be continued until such time as the thermal impact can be thoroughly evaluated.

(1) Baseline Survey

In order to put the 1979 benthic study in proper ecological perspective regarding the regular cyclical biotic fluctuations which are known to occur in Tampa Bay, the following program shall be implemented:

- i. Benthic macroinvertebrate sampling shall be carried out on a bimonthly basis one month after the time of enactment of certification until a period of 12 months prior to commencement of operation of Unit 4. Five stations corresponding to stations 5, 6, 8, 11, and 12 of the 1979 Benthic Ecology Study* shall be sampled according to the methods outlined in the TECO benthic report. Deviations from that methodology shall be approved by the DERDEP.

- ii. and iii. No change.

*"A Study of Thermal Effects on Benthic Communities of Big Bend, Tampa Bay (Florida)", July 1980. TECO

(2) Intensive Survey

In order to adequately assess the thermal impact of Big Bend Unit 4 in conjunction with the combined plume discharge from Units 1, 2, and 3, the following biological monitoring program shall be implemented one year before and shall continue for one year after commencement of operation of Unit 4. A proposal for these intensive studies shall be prepared by the applicant and shall be submitted to ~~DERDEP~~ for approval at least 18 months prior to commercial operation of Unit 4. Such a proposal shall reflect the methodologies employed during the 1979 study so that both data sets can be compared for evaluation of thermal impact from Unit 4.

i. - iii. No change.

b. No change.

III. No change.

IV. Control Measures During Construction

A. No change.

B. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and appropriate local health agency. The sewage treatment plant shall be operated in accordance with Chapters ~~17-3, 17-6, 17-16, 62-302, 62-600, and 62-601~~ and ~~17-19~~, F.A.C. section 403.867, F.S. and the rules promulgated thereunder.

C. - D. No change.

V. Solid Wastes

Solid wastes resulting from construction or operation shall be disposed of in accordance with the applicable regulations of Chapters ~~17-7~~ 62-701 and 62-702, F.A.C. The permittee shall submit a program for approval outlining the methods to be used in handling and disposal of solid wastes. Such program shall indicate at the least methods for erosion control, covering, vegetation and quality control.

Open burning in connection with land clearing shall be in accordance with Chapter ~~17-5~~ 62-256, F.A.C. No additional permits shall be required, but the Division of Forestry shall be

notified prior to burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

VI. - VII. No change.

VIII. Potable Water Supply System

The potable water supply system shall be designed and operated in conformance with Chapter ~~17-22-62-555~~, F.A.C. Information as required in ~~Chapter 17-22-108 62-555~~, F.A.C. shall be submitted to the Department prior to construction and operation. The operator of the potable water supply system shall be certified in accordance with section Chapter 17-16, FAC-403.067, F.S. and the rules promulgated thereunder.

IX. - X. No change.

XI. Construction in Waters of the State

A. Intake and Discharge

1. No construction on sovereignty submerged lands shall commence without obtaining lease or title from the Department of ~~Natural Resources~~ Environmental Protection.

2. - 5. No change.

B. No change.

C. Newman Branch

1. No change.

2. To mitigate against the loss of the grass pond in the area designated as Phase I of the FGD/gypsum disposal area, TECO shall reconstruct the northernmost east-west drainage canal. The side slopes of this drainage canal from Beach Road to the eastern side of the Phase I area shall be reduced to at least 6:1 (horizontal to vertical). Such reconstruction shall be done in a manner to prevent violation of ~~Section 17-3-121~~ Chapter 62-302, F.A.C., Water Quality Criteria, and in accordance with the plans approved by the Department.

XII. FGD/Gypsum Landfill

The proposed FGD/gypsum landfill area shall be monitored and studied pursuant to a detailed groundwater testing and monitoring program as defined in Condition III D.

The results of the program will be used by the Department in determining whether TECO

has affirmatively demonstrated that Florida Water Quality Criteria (Chapter ~~17-3~~ 62-302, F.A.C.) will not be violated.

If the Department determines that TECO has failed to affirmatively demonstrate that Florida Water Quality Criteria (Chapter ~~17-3~~ 62-302, F.A.C.) will not be violated, TECO shall within 90 days of such determination present to the Department a plan of correction (which may include, if appropriate, an impermeable liner) for review and approval by the Department and for timely implementation by TECO.

Construction of perimeter berms shall be in conformance with the provisions of Chapter ~~17-9~~ 62-672, F.A.C., regarding earthen dams.

XIII. - XIV. No change.

XV. 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 notify the ~~Manager~~ Director of ~~DER's~~ DEP's Southwest District Office by telephone during the working day in which permittee becomes aware of said noncompliance and shall confirm this situation in writing within seventy-two (72) hours supplying the following information:

A. - B. No change.

XVI. - XVII. No change.

XVIII. Right of Entry

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

A. - D. No change.

XIX. - XXIX. No change.

XXX. Variances

TECO is granted variances for discharges of the FGD system blowdown pursuant to Sections 403.201 and 403.511(2), F.S., for a period of two years from October 1, 1989 for the following parameters:

a. Arsenic - ~~17-3.061(2)(a)~~ 62-302.530(5), F.A.C.

- b. Cadmium - ~~17-3.121(9)~~ 62-302.530(16), F.A.C.
- c. Chromium - ~~17-3.061(2)(d)~~ 62-302.530(20), F.A.C.
- d. Copper - ~~17-3.121(11)~~ 62-302.530(24), F.A.C.
- e. Iron - ~~17-3.121(16)~~ 62-302.530(39), F.A.C.
- f. Mercury - ~~17-3.121(18)~~ 62-302.530(42), F.A.C.
- g. Nickel - ~~17-3.121(19)~~ 62-302.530(45), F.A.C.
- h. Selenium - ~~17-3.121(26)~~ 62-302.530(59), F.A.C.

During the period that the variance is in effect, TECO shall (1) determine the concentrations of the above metals as well as lead in the two discharge systems; (2) operate the FGD blowdown treatment system so as to minimize the metal content of the discharge from the system; and (3) submit reports of the above studies by October 31, 1990, and June 30, 1991.

Upon receipt of the aforementioned reports, the Secretary shall determine whether the variances should be renewed and may impose appropriate conditions to minimize the discharges and their impacts.

Any party to this Notice 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 Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; 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 Department of Environmental Protection.

DONE AND ENTERED this 7th day of ~~January~~^{February} 2000, in Tallahassee, Florida.

STATE OF FLORIDA, DEPARTMENT
OF ENVIRONMENTAL PROTECTION



DAVID B. STRUHS

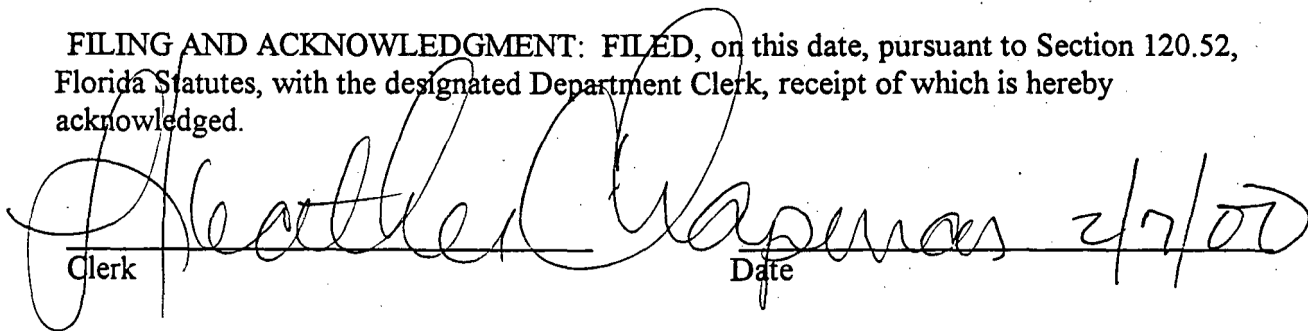
SECRETARY

3900 Commonwealth Boulevard

Tallahassee, FL 32399-3000

Telephone: (850) 488-1554

FILING AND ACKNOWLEDGMENT: FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

Date

CERTIFICATE OF SERVICE

I CERTIFY that a true and correct copy of the foregoing Final Order Modifying Conditions

of Certification was mailed to:

Lawrence N. Curtin, Esquire
Holland & Knight
Post Office Drawer 810
Tallahassee, Florida 32302

Stephanie G. Kruer, Esquire
Department of Community Affairs
2740 Center View Drive
Tallahassee, Florida 32399-2100

Michael Palecki, Chief
Bureau of Electric & Gas
Florida Public Service Commission
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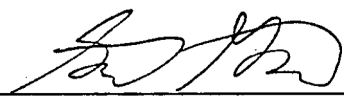
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Gwen L. Shofner, P.E.
Administrator - Water Programs
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Tampa Electric Company
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on this 7th day of February 2000.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



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