



DEPARTMENT OF
ENVIRONMENTAL PROTECTION

SEP 27 1995

September 22, 1995

SITING COORDINATION

Mr. Hamilton Owen
Florida Department of Environmental Protection
Douglas Building, Room 953AA
2900 Commonwealth Blvd., MS 48
Tallahassee, FL 32399-3000

RECEIVED
SEP 29 1995

Bureau of
Air Regulation

Dear Mr. Owen:

Re: Crystal River Site Certification Modifications
Case Number PA 77-09

Florida Power Corporation (FPC) requests that the following changes be made to the site certification for Crystal River Units 4 and 5. Requested changes are discussed by condition of certification. The first three requested changes regard air issues, and the last two concern water requirements. A check in the amount of \$10,000 is enclosed for the review and processing of the modifications.

**Condition No. I.B.7
Salt Drift Study**

FPC formally requests that Condition I.B.7 be deleted from the site certification. As shown by documentation provided in correspondence dated May 24, 1995, which is included as Attachment 1, this study has been conducted for 14 years and has revealed that no significant damage has occurred to the vegetation surrounding the Crystal River Energy Complex from the operation of the cooling towers. Since this issue has been under review at FDEP for several months, FPC requests expedited review and processing of this portion of the modification.

Natural Gas Fuel at Unit 4

FPC has the opportunity to use natural gas as a startup and low-load stabilization fuel on an interruptible basis in Unit 4. Natural gas combustion produces lesser amounts of air pollutants than coal or fuel oil, so its use will be a benefit to the air quality in the area surrounding the Crystal River plant. FPC requests that natural gas be added as a permitted fuel for both Units 4 and 5, in the event that using gas is also feasible in Unit 5 in the future.

**Condition No. I.C.5
Sulfur Dioxide Stack Test Requirement**

Condition I.C.5 currently requires stack testing for particulates and sulfur dioxide on an annual basis. Both Units 4 and 5 have certified continuous emission monitors (CEMs) for SO₂ installed on them, as required by the site certification and Title IV of the Clean Air Act. In addition, the site certification requires that the SO₂ limit of 1.2 lb/MMBtu be complied with on a two-hour average basis. An annual stack test for SO₂ is therefore unnecessary and of no additional value. FPC requests that the requirement to conduct annual stack testing for SO₂ emissions be deleted from Condition I.C.5. A copy of a May 18, 1995 letter from Mr. Bill Proses of the DEP's Southwest District, which is included as Attachment 2, indicates his concurrence with this proposal. In addition, as recommended in Mr. Proses'

letter, the sampling procedures reference in Condition I.C.2 should be changed to 40 CFR Part 60, Appendix A.

**Condition No. II. A. 3.
Thermal Mixing Zone**

This condition currently limits the cooling tower blowdown from Units 4 and 5 to a two hour average thermal limit of 96.0°F at the point of discharge from outfalls 009 and 010 into the site discharge canal. The current NPDES permit (FL0036366) for Units 4 and 5 also limits the discharge temperature from outfalls 009 and 010 to a two hour average limit of 96.0°F (See Attachment 3). This limitation was established prior to the installation of helper cooling towers at Crystal River and when the discharge from Units 4 and 5 was necessary to help cool the discharge from Units 1, 2, and 3.

Section 316 (a) studies were conducted from June 1983 to August 1984, to evaluate the impact of the thermal discharge to the Gulf of Mexico. As a result, helper cooling towers were installed at the Crystal River Energy Complex to provide offstream cooling to mitigate prior thermal impacts to the Gulf. Based on the studies, EPA issued NPDES Permit No FL0000159 for Units 1, 2 and 3 with a site instantaneous temperature limit of 97.0°F and a three hour rolling average limitation of 96.5°F at the point of discharge into the Gulf of Mexico.

As depicted in Figure 1 (See Attached), make-up water for the Units 4 and 5 cooling towers is withdrawn from the discharge canal, downstream of the discharge from Units 1, 2 and 3 and subsequently discharged and mixed with the discharge from Units 1, 2 and 3 prior to the intake for the helper cooling towers. The helper cooling towers, which were operational in March 1993, are used as necessary to insure that the POD temperature does not exceed temperature limits.

Based on biological and water quality studies, NPDES Permit No. FL0000159 (Attachment 4) specifies a site temperature limit which protects the receiving body from unacceptable thermal impact. FPC asserts that the temperature limits for OSN 009 and 010 are unnecessary and requests that they be deleted from the conditions of certification. Concurrently, FPC is requesting that the two hour temperature limit of 96.0°F be deleted from NPDES Permit FL0036366. FPC will continue to monitor and report at the designated outfalls from Units 4 and 5. With the installation/operation of helper cooling towers, the limitation on discharge from OSN, 009, and 010 is unnecessary, restricts operating efficiency, and does not yield any environmental benefit. In fact, limiting operation of the relatively new and clean burning Units 4 and 5 could result in additional environmental impact from replacement energy that may have more emissions.

Specifically, FPC requests that Condition II. A. 3. be modified as follows:

The zone of thermal mixing for cooling tower blowdown shall not extend beyond the western end of the north bank of the existing discharge canal. During discharge, the blowdown from the cooling towers for Units No. 4 & 5 shall be withdrawn at the point of lowest temperature of the recirculating cooling water prior to the addition of makeup water. ~~The temperature at the point of discharge into the discharge canal shall not be greater than at 96.0°F, maximum two (2) hour average. The temperature of the water at the end of the discharge canal shall not exceed the limitations of Paragraph 17-3.05(3)(d) when only Units 4 & 5 are operating and one or more of the circulating water pumps from the existing units are operating. The temperature at the point of discharge into the discharge canal and into the Gulf of Mexico shall comply with temperature limitations specified in NPDES permits NO. FL0036366 and FL0000159 respectively.~~

**Condition No. II. A. 7.
Cooling Tower Blowdown**

This condition of certification currently prohibits the discharge of detectable amounts of materials added for corrosion inhibition, including but not limited to zinc and chromium in the cooling tower blowdown from Units 4 and 5.

Mr. Hamilton Owen
September 22, 1995
Page Three

FPC requests that this prohibition be deleted from the conditions of certification. NPDES Permit No. FL0036366 and Chapter 62.620, FAC currently provide for the authorization of the use of chemicals (such as corrosion inhibitors) provided the discharge of the chemical is not toxic to aquatic life, does not contain priority pollutants and will not discharge pollutants in excess of the water quality standards.

This blanket prohibition of the use and subsequent discharge of corrosion inhibitors for treatment of the condensers at Units 4 and 5 appears to be overly restrictive and puts the units at an economic disadvantage since treatment of the condenser tubes could extend the life of the condensers and provide for a substantial cost savings compared to the complete replacement of the condenser tubes. FPC requests that Condition No. II. A. 7 be deleted from the conditions of certification and allow the EPA and FDEP Industrial Wastewater Section (as a result of delegation) to determine on a case-by-case basis if the use and subsequent discharge of the material is prohibited during the review process.

Thank you for your consideration of these requests. Please contact Mr. Mike Kennedy at (813) 866-4344 if you have questions regarding air issues, and Ms. Manitia Moultrie at (813) 866-4667 for questions pertaining to water issues.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. Pardue", is written over a horizontal line.

W. Jeffrey Pardue, C.E.P.
Director
Environmental Services Department

cc: Mr. William Thomas, DEP - Tampa



**Florida
Power**
CORPORATION

P. O. BOX 14042
ST. PETERSBURG, FL 33733-4042
(813) 866-5257

REMITTANCE ADVICE

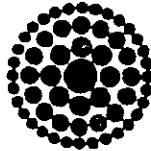
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CHECK DATE 09/05/95 VENDOR FLA DEPT OF ENVIRONMENTAL VENDOR NO. 278473 CHECK NO. 1756701

INVOICE NO.	DATE	OUR ORDER NO.	VOUCHER	GROSS AMOUNT	DISCOUNT	NET AMOUNT
CK96650	08/29/95		9508154583	10,000.00	.00 TOTAL	10,000.00 10,000.00

THE ATTACHED REMITTANCE IS IN FULL SETTLEMENT OF ACCOUNT AS STATED. IF NOT CORRECT PLEASE RETURN TO ABOVE ADDRESS.

Accounts Payable Department B3F
P.O. Box 14042
St. Petersburg, FL 33733-4042



**Florida
Power**
CORPORATION

63-115
831

DATE 09/05/95 CHECK NO. 1756701

PAY:

\$10*THOUSAND*DOLLARS AND 00 CENTS

\$****10,000.00

SunBank / Mid-Florida

TO
THE
ORDER
OF

FLA DEPT OF ENVIRONMENTAL
PROTECTION
2600 BLAIR STONE RD
TALLAHASSEE FL 32399-2400

Void after 60 days

J. H. Smallwood
Treasurer

⑈ 1001756701 ⑈ ⑈ 06310115316990032052736 ⑈

I N T E R O F F I C E M E M O R A N D U M

Date: 04-Aug-1995 07:16pm EST
From: Alvaro Linero TAL
LINERO_A
Dept: Air Resources Management
Tel No: 904/921-9532
SUNCOM: 291-9532

TO: Trudie Bell TAL (BELL_T)
TO: Hamilton Buck Oven TAL (OVEN_H)
CC: Tom Rogers TAL (ROGERS_T)

Subject: FPC Salt Drift Study

Trudie. Please refer to my E-Mail of July 14. Do you have any comment before I go ahead and tell these guys they have met PSD permit requirements for initial intensive Phase of study. I plan to tell them that they can stop (assuming their certification remains unaffected or they get it changed) for three years and then monitor again for one year to see if situation has stabilized. I would tell them they have done enough, but then I would be saying essentially that there is no impact. There was impact, but it was not definitively possible for them to separate plant impact from natural phenomena.

Under my scenario would they still need to pay for a certification change? The program would not be ended, but rather considered to have been fulfilled (at least an intensive phase).

I have already floated the concept of a hiatus to FPC rather than a complete stop.

Please copy Tom Rogers on your response. Thanks.

July 14, 1995

Mr. W. Jeffrey Pardue, Director
Environmental Services Department H2G
P. O. Box 14042
St. Petersburg 33733

Re: Crystal River Salt Drift Study, PA 77-09

Dear Mr. Pardue:

The Department has reviewed the recent status reports and your requests to discontinue the salt drift monitoring effort. It is the opinion of the Department that your effort to-date satisfies at least an intensive salt drift data gathering phase.

We ~~will~~ do not need to revise the PSD permit but consider Condition 5c to have been partially fulfilled. The impacts you attribute to the plant appear consistent with the predictions of the Environmental Impact Statement you submitted under pursuit of approval of the NPDES permit. Your report cited other phenomena such as hurricanes, salt spray due to increasing Gulf water level and receding coastline which may explain the more significant vegetative deterioration in the vicinity. We are unable to conclusively separate these effects from those of the plant. Therefore we will require that you continue the overall program at a reduced intensity by monitoring during 1998 and intermittently thereafter until it is evident that the situation has stabilized or that the effects from the plant can conclusively be separated from natural processes.

Mr. Hamilton S. Oven, Administrator of the Siting Coordination Office already advised you that a modification fee must be submitted if you wish to delete the monitoring program as a requirement of the Certification. However, since we will only approve reduction of the program at this time, it will not likely be possible to remove it from the Certification.

If you have any questions regarding this matter, please call Al Linero at (904)488-1344.

Sincerely

Howard Rhodes

cc: Winston Smith, EPA
Buck Oven, PPS

I N T E R O F F I C E M E M O R A N D U M

Date: 14-Jul-1995 12:08pm EST
From: Alvaro Linero TAL
LINERO_A
Dept: Air Resources Management
Tel No: 904/921-9532
SUNCOM: 291-9532

TO: Hamilton Buck Oven TAL (OVEN_H)
TO: Trudie Bell TAL (BELL_T)

Subject: Salt Drift Study

I received a letter from Dave Voight of FPC with whom I talked prior to Buck's letter of May 24, 1995. I don't think we can conclude that there is no significant impact because we cannot separate plant impacts from natural phenomena in a conclusive manner. The PSD permit allows them to eliminate the program if data indicate that there are no significant impacts.

If the criterion had been that they could eliminate the program after documenting the impact, we could say they had fulfilled the conditions in my opinion. Maybe they can ask that the criterion be changed but it would mean public notice and you might still require the fee (most of which I presume they would get back if unused).

Let me know what you think of my approach. We can revise it and address it through PPS office to include your comments. If you want us to handle it, I'll send my letter (with your revisions) to Clair for review and then to EPA for comment prior to sending it to FPC.



July 5, 1995

RECEIVED
JUL 12 1995
Bureau of
Air Regulation

Mr. Al Linero, Supervisor
Air Permitting Section
Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Dear Mr. Linero:

Re: Crystal River Salt Drift Study

During our recent telephone conversation concerning the Crystal River Salt Drift Study, you asked that the results of the study be compared to the predictions of the final Environmental Impact Statement. I have located a copy of the EIS and have enclosed a copy of the pertinent pages.

We believe the EIS prediction that "widespread damage is unlikely" (page 1-48) has been confirmed by the 13 years of the salt drift study. Therefore, the study should be determined to be complete according to Condition 5.c. of our PSD permit number PSD-FL-007, which satisfies the original Conditions of Certification for units 4 and 5, and the study should be ended.

Thank you for your consideration of this matter. Please contact either Mr. Mike Kennedy at (813) 866-4344 or me at (813) 866-5166 if you have any questions or if you need additional information.

Sincerely,

David K. Voigts, Ph.D.
Senior Ecologist

Enclosure
DKV/BB