

**Florida
Power**
CORPORATION
Crystal River Unit 3
Docket No. 50-302

January 20, 1992
3F0192-12

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Environmental Protection Plan

Dear Sir:

Please find attached a copy of correspondence dated November 26, 1991, to the Environmental Protection Agency concerning a minor modification to the NPDES Permit FL0000159 for the monitoring and reporting of discharge flow from the Crystal River site. The submittal of this correspondence to the NRC is required in accordance with the Environmental Protection Plan, Section 3.2.

Sincerely,

P. M. Beard, Jr.
Senior Vice President
Nuclear Operations

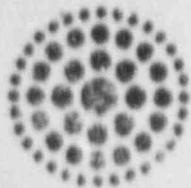
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Attachment

xc: Regional Administrator, Region II
Senior Resident Inspector
NRR Project Manager

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**Florida
Power**
CORPORATION

November 26, 1991

Certified Mail

Mr. James Scarbrough, Chief
Facilities Performance Branch
U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, GA 30365

Dear Mr. Scarbrough:

Re: Crystal River Power Plant Units 1, 2, & 3
NPDES Permit FL0000159
Flow Reduction

Pursuant to a telephone conversation between Mr. Charles Kaplan of your office and Ms. Manita Moultrie of my staff on November 20, 1991, Florida Power Corporation (FPC) hereby requests a minor modification to the subject permit regarding monitoring and reporting of Crystal River site discharge flow during the winter flow reduction season. A summary of the conversation and proposed wording of the modification are provided below.

Summary of Flow Reduction Conversation (11/20/91)

In a November 7, 1991 letter from W. Jeffrey Padue to Mr. Kaplan, FPC outlined two alternatives for measurement of total site discharge flow during the November 1 to April 30 annual flow reduction period.

1. **Electronic Flow Monitors** - FPC has installed electronic (doppler effect) flow monitors, but these instruments have so far been unreliable.
2. **Fixed Valve Position** - The throttling valves which have been installed in the condenser discharge piping of Units 1&2 may be set to achieve the desired flow, based upon a valve position - flow curve developed by dye dilution testing.

The reasons for rejection of Alternative 1 were discussed. At present, two unavoidable conditions in the condenser discharge piping at Crystal River Units 1&2 - air leakage and non-laminar flow - significantly impair the performance of these monitors. FPC will continue to explore the capabilities of the electronic (doppler effect) flow monitors, but another method of flow monitoring must be implemented to support the February 28, 1992 beginning of the first flow reduction season.

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It was agreed by Mr. Kaplan that EPA will accept Alternative 2. FPC will proceed to implement this alternative, incorporating the following considerations.

- A series of dye dilution tests will be performed on each condenser over a range of valve settings to establish the valve position - flow curve for each throttling valve.
- The flow measured during dye dilution testing will be normalized to mean tide level. The valve position will be set during reduced flow operation based upon these normalized flows.
- Upon implementation of flow reduction, the throttling valves will be set as necessary to achieve the 15% reduction in total site discharge. Valve positions may be changed to respond to changing conditions, such as a condenser or unit being out of service.
- Monitoring during flow reduction season will consist of maintaining hourly pump logs (exactly as is done during the remainder of the year) and recording the position of the throttling valves.
- The reported flow will be determined from the pump logs and valve position - flow curves. In essence, the valve position - flow curves will take the place of the pump curves during flow reduction season.
- Dye dilution testing will be performed to re-establish the valve position - flow curve for a specific circulating water pump circuit if modifications are made to the circulating water system (flumes, condenser, etc.).

Proposed Modification

PART I.A.2.a:

Add reference to Footnote 5 under "Sample Type" entry for "Flow (MGD)" as follows:

Pump logs *S/*

PART I.A.2:

Add footnote 5 as follows:

S/ Supplement with valve position log during flow reduction season (reference November 26, 1991 letter [Pardue to Patrick (EPA)]).

PART I.A.3.a:

Add reference to Footnote 4 under "Sample Type" entry for "Flow (MGD)" as follows:

Pump logs *S/*

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PART I.A.3:

Add Footnote 4 as follows:

4/ Supplement with valve position log during flow reduction season (reference: November 26, 1991 letter [Pardue to Patrick (EPA)]).

If you have any questions or comments, please contact Ms. Manitia Moultrie at (813) 866-4667.

Sincerely,



W. Jeffrey Pardue, Manager
Environmental Programs

cc: 1-10/91/patr.30

Mr. Charles H. Kaplan, P.E., EPA
Dr. Richard Garrity, FDER, Tampa