Florida Power
CORPORATION

February 24, 1984
3F0284-14

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Technical Specification Change Request No. 113
Increase In Spent Fuel Enrichment

Dear Sir:

Enclosed are three (3) originals and forty (40) copies of Request No. 113 requesting amendment to Appendix A of Operating License No. DPR-72. As part of this request, the proposed pages are enclosed.

This submittal requests an increase in the allowable enrichment of the Crystal River Unit 3 fuel assemblies. A criticality safety analysis to justify an increase from 3.3 weight percent to 3.5 weight percent U-235 is included in this submittal.

Florida Power Corporation considers Request No. 113 to be a Class III Amendment per 10CFR 170.22 as it involves a single safety issue. Accordingly, a check for four thousand dollars ($4,000) is enclosed.

Sincerely,

G. R. Westafer

G. R. Westafer
Manager, Nuclear Operations
Licensing and Fuel Management

DVH/ddl

Enclosures

xc: Mr. J. P. O'Reilly
Regional Administrator, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30303

Rec'd w/check A001
621391 $4,000.00 1/1

STATE OF FLORIDA

COUNTY OF PINELLAS

G.R. Westafer states that he is the Manager, Nuclear Operations Licensing and Fuel Management for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

G R Westafer

G.R. Westafer
Manager, Nuclear Operations Licensing and Fuel Management

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 24th day of February, 1984.

Deborah Leonard

Notary Public

Notary Public, State of Florida at Large,

My Commission Expires: November 19, 1986

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF	)	
	)	DOCKET No. 50-302
FLORIDA POWER CORPORATION	)	

CERTIFICATE OF SERVICE

G.R. Westafer deposes and says that the following has been served on the Designated State Representative and the Chief Executive of Citrus County, Florida, by deposit in the United States mail, addressed as follows:

Chairman,
Board of County Commissioners
of Citrus County
Citrus County Courthouse
Inverness, FL 32650

Administrator
Radiological Health Services
Department of Health and
Rehabilitative Services
1323 Winewood Blvd.
Tallahassee, FL 32301

One (1) copy of Technical Specification Change Request No. 113, requesting amendment to Appendix A of Operating License No. DPR-72.

FLORIDA POWER CORPORATION

G.R. Westafer
Manager
Nuclear Operations Licensing and Fuel
Management

SWORN TO AND SUBSCRIBED BEFORE ME THIS 24th DAY of February 1984.

Notary Public

Notary Public, State of Florida at Large
My Commission Expires: November 19, 1986

(NOTARIAL SEAL)

FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
Docket No. 50-302/License No. DPR-72
Request No. 113, Revision 0
Increase In Spent Fuel Enrichment

LICENSE DOCUMENT INVOLVED:

Technical Specifications (Appendix A)

PORTIONS:

5.3.1. Fuel Assemblies

5.6.1. Criticality

DESCRIPTION OF REQUEST:

Florida Power Corporation requests approval to increase the Uranium 235 (U-235) loading in the spent fuel storage racks from 42.7 grams (3.3 weight percent U-235) to 46.14 grams per axial centimeter (3.5 weight percent U-235).

REASON FOR REQUEST:

Florida Power Corporation intends to increase the fuel enrichment to approximately 3.5 weight percent U-235 for Cycle VI and subsequent cycles. Because the Crystal River Unit 3 spent fuel analysis for the high density spent fuel racks assumed a 3.3 enrichment, a revised criticality safety analysis is required.

EVALUATION OF REQUEST:

A criticality safety analysis verifing that keff will not exceed .95 under normal or accident conditions has been prepared and is attached to this request. Due to more sophisticated analysis methods and improved experimental data on Crystal River Unit 3 type spent fuel storage arrays, the attached criticality analysis more accurately predicts spent fuel criticality than the March 1978 analysis, which supported a 3.3. enrichment. An analysis to support a 3.5 enrichment in the old spent fuel storage racks and new fuel storage racks has not been included because the preoperational analysis supporting that enrichment is still applicable.

REFERENCES:

S. E. Turner, Ph.D. and M. K. Gurley,
Criticality Analysis of the Crystal River Spent Fuel Storage Rack, SS 152
December, 1983.

Regulatory Guide 1.13,
Spent Fuel Storage Facility Design Basis.

ANSI/ANS 57.2,
Design Requirements for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants.

US NRC Standard Review Plan, NUREG-0800, Section 9.1.2,
Spent Fuel Storage.