Apr 29, 1998

Mr. John Paul Cowan
Vice President - Nuclear Production (NA2E)
Florida Power Corporation
Crystal River Energy Complex
15760 W. Power Line Street
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - STAFF EVALUATION AND ISSUANCE OF AMENDMENT RE: REACTOR BUILDING FAN ELECTRICAL LOGIC MODIFICATION (TAC NO. M99732)

Dear Mr. Cowan:

The Commission has issued the enclosed Amendment No. 166 to Facility Operating License No. DPR-72 for the Crystal River Unit 3. This amendment is in response to your request dated October 4, 1997, in which you proposed to revise the Final Safety Analysis Report (FSAR) and the Improved Technical Specification Bases to reflect the modified reactor building fan control logic for fan AHF-1C.

The amendment approves changes to the FSAR, and requires that the changes be submitted with the next update of the FSAR pursuant to 10 CFR 50.71(e). A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

Leonard A. Wiens, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures: 1. Amendment No. 166 to DPR-72
2. Safety Evaluation

cc w/enclosures: See next page

Distribution:	ACRS	THarris (EMail SE)	LPlisco, RII
Docket File	BClayton	JZwolinski	FHebdon
PUBLIC	LWiens	GHill (2)	WBeckner
CR-3 r/f	JWermiel	OGC	BMarcus

1/1
DF01

OFC	PDII-3/PM	PDII-3/LA	OGC *	D:PDII-3 *	
NAME	LWiens:cw	BClayton	Bachmann	FHebdon	
DATE	4/29/98	4/28/98	4/24/98	4/29/98	

OFFICIAL RECORD COPY **DOCUMENT NAME: G:\CRYSTAL\M99732.AMD**

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 29, 1998

Mr. John Paul Cowan
Vice President - Nuclear Production (NA2E)
Florida Power Corporation
Crystal River Energy Complex
15760 W. Power Line Street
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - STAFF EVALUATION AND ISSUANCE OF AMENDMENT RE: REACTOR BUILDING FAN ELECTRICAL LOGIC MODIFICATION (TAC NO. M99732)

Dear Mr. Cowan:

The Commission has issued the enclosed Amendment No.166 to Facility Operating License No. DPR-72 for the Crystal River Unit 3. This amendment is in response to your request dated October 4, 1997, in which you proposed to revise the Final Safety Analysis Report (FSAR) and the Improved Technical Specification Bases to reflect the modified reactor building fan control logic for fan AHF-1C.

The amendment approves changes to the FSAR, and requires that the changes be submitted with the next update of the FSAR pursuant to 10 CFR 50.71(e). A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Leonard A. Wiens, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures: 1. Amendment No. 166 to DPR-72
2. Safety Evaluation

cc w/enclosures: See next page

Mr. John Paul Cowan
Florida Power Corporation

cc:
Mr. Roy A. Anderson, Senior Vice President
Energy Supply
Florida Power Corporation
ATTN: Manager, Nuclear Licensing
Crystal River Energy Complex (SA2A)
15760 W. Power Line Street
Crystal River, Florida 34428-6708

Mr. R. Alexander Glenn
Corporate Counsel
Florida Power Corporation
MAC-A5A
P.O. Box 14042
St. Petersburg, Florida 33733-4042

Mr. Charles G. Pardee, Director
Nuclear Plant Operations (NA2C)
Florida Power Corporation
Crystal River Energy Complex
15760 W. Power Line Street
Crystal River, Florida 34428-6708

Mr. Robert B. Borsum
Framatome Technologies Inc.
1700 Rockville Pike, Suite 525
Rockville, Maryland 20852

Mr. Bill Passetti
Office of Radiation Control
Department of Health and
Rehabilitative Services
1317 Winewood Blvd.
Tallahassee, Florida 32399-0700

Attorney General
Department of Legal Affairs
The Capitol
Tallahassee, Florida 32304

Mr. Joe Myers, Director
Division of Emergency Preparedness
Department of Community Affairs
2740 Centerview Drive
Tallahassee, Florida 32399-2100

Chairman
Board of County Commissioners
Citrus County
110 North Apopka Avenue
Iverness, Florida 34450-4245

Mr. Robert E. Grazio, Director
Nuclear Regulatory Affairs (SA2A)
Florida Power Corporation
Crystal River Energy Complex
15760 W. Power Line Street
Crystal River, Florida 34428-6708

Senior Resident Inspector
Crystal River Unit 3
U.S. Nuclear Regulatory Commission
6745 N. Tallahassee Road
Crystal River, Florida 34428

Mr. Gregory H. Halnon
Acting Director, Quality Programs (SA2B)
Florida Power Corporation
Crystal River Energy Complex
15760 W. Power Line Street
Crystal River, Florida 34428-6708

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
61 Forsyth Street, SW., Suite 23T85
Atlanta, GA 30303-3415

Mr. Kerry Landis
U.S. Nuclear Regulatory Commission
61 Forsyth Street, SW., Suite 23T85
Atlanta, GA 30303-3415

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

FLORIDA POWER CORPORATION
CITY OF ALACHUA
CITY OF BUSHNELL
CITY OF GAINESVILLE
CITY OF KISSIMMEE
CITY OF LEESBURG
CITY OF NEW SMYRNA BEACH AND UTILITIES COMMISSION,
CITY OF NEW SMYRNA BEACH
CITY OF OCALA
ORLANDO UTILITIES COMMISSION AND CITY OF ORLANDO
SEMINOLE ELECTRIC COOPERATIVE, INC.
CITY OF TALLAHASSEE

DOCKET NO. 50-302

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 166
License No. DPR-72

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Florida Power Corporation, et al. (the licensees) dated October 4, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (I) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, changes to the updated Final Safety Analysis Report (FSAR) to reflect changes to the Reactor Building Cooling Fan AHF-1C electrical logic at Crystal River Unit 3, as set forth in the application for amendment by Florida Power Corporation dated October 4, 1997 are authorized. The licensee shall submit the revised description authorized by this amendment with the next update of the FSAR in accordance with 10 CFR 50.71(e).

3. This license amendment is effective as of its date of issuance and shall be implemented as specified in (2), above.

FOR THE NUCLEAR REGULATORY COMMISSION

Frederick J. Hebdon

Frederick J. Hebdon, Director
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Date of Issuance: April 29, 1998

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 166 TO FACILITY OPERATING LICENSE NO. DPR-72

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

DOCKET NO. 50-302

1.0 INTRODUCTION

By letter dated October 4, 1997, Florida Power Corporation provided plans to modify the reactor building fan cooler (RBFC) electrical logic and requested an amendment to the Crystal River Unit 3 Operating License that would authorize changes to Technical Specification Bases and the Final Safety Analysis Report (FSAR). The licensee determined that the proposed changes would constitute an Unresolved Safety Question and thus require staff approval prior to implementation.

During a loss-of-coolant accident (LOCA), reactor building cooling is provided by the reactor building spray system and the RBFC system. The reactor building fan cooler (RBFC) system has three fan coolers (AHF-1A, AHF-1B, and AHF-1C). Currently either AHF-1A or AHF-1B is automatically started in response to a reactor building isolation and cooling (RBIC) signal and the RBFC that is not started is configured as an automatic backup in case the first RBFC does not start. Presently AHF-1C is not used in response to an RBIC signal. The proposed modifications would allow AHF-1C to be substituted for either AHF-1A or AHF-1B as the lead or backup RBFC.

2.0 EVALUATION

AHF-1C was originally designed as a swing fan to be used as a substitute or supplement during normal cooling and was administratively removed from service because of potential excessive diesel loading concerns and service water limitations. The licensee has proposed a modification to the electrical logic to allow AHF-1C to be substituted for either AHF-1A or AHF-1B. In order to prevent loading more than one RBFC on an emergency diesel generator and to ensure proper alignment of the RBFCs and the power sources, the licensee has provided automatic start permissive interlocks, relays, operating procedures, and alarms. The logic would allow any one of the three RBFCs to be selected as the lead RBFC and either of the two remaining RBFCs to be selected as the automatic backup in the event of RBIC signal.

The new logic circuit adds a level of complexity to the starting of the RBFCs because its proper operation depends upon additional interlocks, relays, and relay contacts that have been added to provide this new logic. A potential single failure in the logic circuits that could result in no RBFCs operating is bounded by the licensee's previous analysis that was performed to evaluate failure of the service water system, resulting in no cooling water to the RBFCs. This condition was previously evaluated and found acceptable because reactor building cooling can be accomplished by the use of both trains of the reactor building spray system. Based on the above evaluation, the staff concludes that the Unresolved Safety Question regarding new credible failure modes is bounded by the licensee's previous analysis and the proposed modification continues to provide reasonable assurance that adequate containment cooling would be available when required. Therefore, the staff finds the proposed modification of the RBFC electrical logic to be acceptable.

3.0 STATE CONSULTATION

Based upon written notice of the proposed amendment, the Florida State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATIONS

The amendment changes requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The U.S. Nuclear Regulatory Commission staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding (63 FR 2423). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

Based on its evaluation, the staff concludes that the proposed modifications to the AHF-1C electrical logic are acceptable because new credible failure modes are bounded by a previously approved analysis. The staff, therefore, concludes that the licensee's proposed changes to FSAR and Bases sections of the plant technical specifications are acceptable.

Principal Contributor: Barry S. Marcus

Dated: April 29, 1998