

October 17, 1989

Docket No. 50-302

DISTRIBUTION  
See attached sheet

Mr. W. S. Wilgus  
Vice President, Nuclear Operations  
Florida Power Corporation  
ATTN: Manager, Nuclear Licensing  
P. O. Box 219  
Crystal River, Florida 32629

Dear Mr. Wilgus:

SUBJECT: CRYSTAL RIVER UNIT 3 - ISSUANCE OF AMENDMENT (TAC NO. 74163 )

The Commission has issued the enclosed Amendment No. 123 to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated August 9, 1989.

This amendment extends, on a one-time basis, the surveillance interval for the emergency diesel generator full load test until Refuel 7, currently scheduled to start in March, 1990.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Harley Silver, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 123 to DPR-72
- 2. Safety Evaluation

cc w/enclosures:  
See next page

\*SEE PREVIOUS CONCURRENCE

LA:PDII-2  
\*DMiller  
10/12/89

PM:PDII-2  
\*HSilver:jd  
10/12/89

D:PDII-2  
\*HBerkow  
10/12/89

OGC *CR auth*  
10/13/89

SELB *FR*  
FRosa  
10/12/89

*WSD*  
10/16/89

*DF01*  
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Mr. W. S. Wilgus  
Florida Power Corporation

Crystal River Unit No. 3 Nuclear  
Generating Plant

cc:

Mr. A. H. Stephens  
General Counsel  
Florida Power Corporation  
MAC - A5D  
P. O. Box 14042  
St. Petersburg, Florida 33733

State Planning and Development  
Clearinghouse  
Office of Planning and Budget  
Executive Office of the Governor  
The Capitol Building  
Tallahassee, Florida 32301

Mr. P. F. McKee, Director  
Nuclear Plant Operations  
Florida Power Corporation  
P. O. Box 219-NA-2C  
Crystal River, Florida 32629

Chairman  
Board of County Commissioners  
Citrus County  
110 North Apopka Avenue  
Inverness, Florida 32650

Mr. Robert B. Borsum  
Babcock & Wilcox  
Nuclear Power Generation Division  
1700 Rockville Pike, Suite 525  
Rockville, Maryland 20852

Mr. Rolf C. Widell, Director  
Nuclear Operations Site Support  
Florida Power Corporation  
P.O. Box 219-NA-2I  
Crystal River, Florida 32629

Senior Resident Inspector  
Crystal River Unit 3  
U.S. Nuclear Regulatory Commission  
15760 West Powerline Street  
Crystal River, Florida 32629

Mr. Gary L. Boldt  
Vice President, Nuclear Production  
Florida Power Corporation  
P. O. Box 219-SA-2C  
Crystal River, Florida 32629

Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
101 Marietta Street N.W., Suite 2900  
Atlanta, Georgia 30323

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

Administrator  
Department of Environmental Regulation  
Power Plant Siting Section  
State of Florida  
2600 Blair Stone Road  
Tallahassee, Florida 32301

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

DATED: October 17, 1989

AMENDMENT NO. 123 TO FACILITY OPERATING LICENSE NO. DPR-72-CRYSTAL RIVER UNIT 3

Docket File

NRC & Local PDRs

PDII-2 Reading

S. Varga, 14/E/4

G. Lainas, 14/H/3

H. Berkow

D. Miller

H. Silver

G. Wunder

S. Saba, 8/D/20

F. Rosa, 8/D/20

OGC-WF

D. Hagan, 3302 MNBB

E. Jordan, 3302 MNBB

B. Grimes, 9/A/2

T. Meek(4), P1-137

Wanda Jones, P-130A

J. Calvo, 11/F/23

J. Miller, 11/F/23

ACRS (10)

GPA/PA

OC/LFMB

M. Sinkule, R-II

cc: Plant Service list



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

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  
SEBRING UTILITIES COMMISSION  
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. 123  
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 August 9, 1989, 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.

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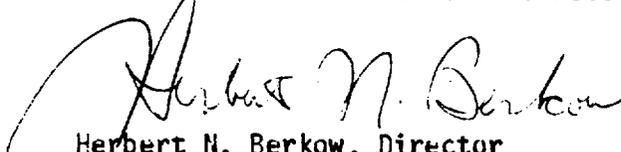
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-72 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 123, are hereby incorporated in the license. Florida Power Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 17, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 123

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove

3/4 8-5  
3/4 8-6c

Insert

3/4 8-5  
3/4 8-6c

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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2. Verifying the generator capability to reject a load of  $\geq 515$  kw without tripping.
- \*3. Simulating a loss of offsite power in conjunction with Reactor Building high pressure and Reactor Building high-high pressure tests signals, and;
  - a) Verifying de-energization of the emergency buses and load shedding from the emergency busses,
  - b) Verifying that the 4160 v. emergency bus tie breakers open,
  - c) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer, and operates for  $\geq 5$  minutes while its generator is loaded with the emergency loads.
- \*\*4. Verifying the diesel generator operates for at least 60 minutes.
- \*\*\* During the first 5 minutes but no greater than 6 minutes of this test the diesel generator shall be loaded to greater than or equal to 3248 kw but less than 3300 kw and during the remaining time of this 60 minute test, the diesel generator shall be loaded to greater than or equal to 2750 kw but less than 3000 kw,
- \*\*5. Verifying that the auto-connected loads to each diesel generator for the worst case diesel generator operating condition do not exceed 3248 kw, and
6. Verifying that the automatic load sequence timers are OPERABLE with each load sequence time interval within  $\pm 10\%$ .

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- \* This test shall be performed in MODE 3
  - \*\* These revised requirements shall apply only until the end of Cycle VII.
  - \*\*\* The specified 18 month frequency may be waived until the end of Cycle VII.

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- \*3. Simulating a loss of offsite power in conjunction with Reactor Building high pressure and Reactor Building high-high pressure tests signals, and
  - a) Verifying de-energization of the emergency buses and load shedding from the emergency buses,
  - b) Verifying that the 4160 v. emergency bus tie breakers open,
  - c) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency buses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer, and operates for  $\geq 5$  minutes while its generator is loaded with the emergency loads.
- \*\*4. Verifying the diesel generator operates for at least 60 minutes.  
\*\*\* During the first 5 minutes but no greater than 6 minutes of this test, the diesel generator shall be loaded to greater than or equal to 3248 kw but less than 3300 kw and during the remaining time of this 60 minute test, the diesel generator shall be loaded to greater than or equal to 2750 kw but less than 3000 kw,
- \*\*5. Verifying that the auto-connected loads to each diesel generator for the worst case diesel generator operating condition do not exceed 3248 kw, and
- 6. Verifying that the automatic load sequence timers are OPERABLE with each load sequence time interval within  $\pm 10\%$ .

- 
- \* This test shall be performed in MODE 3.
  - \*\* These revised requirements shall apply only until the end of Cycle VII.
  - \*\*\* The specified 18 month frequency may be waived until the end of Cycle VII.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 123 TO FACILITY OPERATING LICENSE NO. DPR-72

FLORIDA POWER CORPORATION, ET AL.

CRYSTAL RIVER UNIT NO. 3 NUCLEAR GENERATING PLANT

DOCKET NO. 50-302

INTRODUCTION

By letter dated August 9, 1989, Florida Power Corporation (FPC or the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). The proposed amendment would extend, on a one-time basis, the surveillance interval for the diesel generator full load test until the Cycle VII reload. The surveillance interval, as it stands now, ends on October 21, 1989, and Cycle VII reload is scheduled for March 1990.

EVALUATION

CR-3 has two Emergency Diesel Generators (EDG). The continuous rating of each unit is 2750kW, the 2000-hour rating is 2750kW to 3000kW, and the 30-minute rating is 3000kW to 3300kW. The full load test includes operation for 5 minutes in the 30-minute rating and for 55 minutes in the 2000 hour rating. Allowable operation in the 30-minute rating, in which the maximum engineered safeguards auto-start load for EDG 1A presently falls, is cumulative.

Currently, TS 4.8.1.1.2.d.4 and 4.8.1.2.2.d.4 require that a full load test be performed every 18 months. The TS currently allow an extension not to exceed 25% of the surveillance interval.

Due to an unplanned outage to repair a reactor coolant pump, the surveillance interval, with maximum extension, runs out before the end of the current fuel cycle. The licensee's proposed changes would allow operation until the end of the current fuel cycle without conducting the full-load test. This would effectively extend the surveillance interval for 5 to 6 months.

The full load tests were last performed on both EDG on December 7, 1987. Since then, EDG 1A has been operated for less than 200 hours, and EDG 1B for less than 170 hours, at an average load of approximately 2500kW. EDG 1B has also been operated for 2 hours at 2900kW. It is expected that each EDG will accumulate 60-70 additional hours of operation between now and the end of the current fuel cycle.

In March of 1989, the licensee performed an inspection of both EDG in accordance with the manufacturer's recommendations. Based on the results of this inspection, it is expected that the EDG will remain capable of supplying the required

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loads until Reload VII. The run time since the last load test and the expected additional run time are small and the probability of a wear failure in the requested extension period is low.

In addition, other EDG tests have been and will continue to be performed as specified in the TS.

The staff has reviewed the licensee's proposal and, based on the above, concludes that there is little chance of failure of the EDG to carry the required load in the event of a postulated accident during the requested extension period. In addition, the proposed amendment would increase the time the EDG would be available to carry the maximum engineered safeguards load by eliminating running of the EDG in the 30-minute rating. At the next outage, the system will be modified so that the test load will be reduced to below the 30-minute rating. We find, therefore, that the licensee's proposal is acceptable.

#### EXIGENT CIRCUMSTANCES

In conformance with 10 CFR 50.91, the Commission issued a "Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing" which was published in the Federal Register on September 29, 1989 (54 FR 40221).

As discussed above, the present TS requirements are such that the full load test must be performed by October 21, 1989 or the plant must be shut down. If the test were to be conducted, the portion of the test at a power level within the 30-minute rating would reduce the time that the EDG would be available to carry the maximum engineered safeguards load. Therefore, we conclude that exigent circumstances exist and that the amendment should be issued promptly.

There were no public comments in response to the Federal Register notice.

#### FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated because the EDGs are expected to be capable of performing their intended function for the remainder of the present fuel cycle.

Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed change introduces no new mode of plant operation nor does it require any physical modifications to the plant.

Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety because previous tests and inspections and the low run time since lead us to conclude that the EDGs are expected to be capable of carrying the required load in the event of a postulated accident. In addition, not performing the full load test would increase the margin of safety since it would increase the length of time the EDG would be available to carry the maximum engineered safeguards load in the event of a postulated accident.

Based on the above, the staff concludes that the amendment meets the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendment does not involve significant hazards considerations.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a surveillance requirement. We have determined that the amendment involves 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. Accordingly, this 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 this amendment.

#### CONCLUSION

We have concluded, based on the considerations discussed above, that (1) because the requested changes do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: October 17, 1989

#### Principal Contributors:

S. Saba  
G. Wunder  
H. Silver