August 5, 1977

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Docket No.: 50-302

Florida Power Corporation
ATTN: Mr. J. T. Rodgers
Assistant Vice President and
Nuclear Project Manager
P. O. Box 14042
St. Petersburg, Florida 33733

Gentlemen:

The Commission has issued the enclosed Amendment No. 6 to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant. The amendment consists of changes to the Technical Specifications in response to your application dated August 4, 1977.

This amendment revises Technical Specification 4.8.1.1.2.c.4 to extend the interval for a demonstration of diesel generator operability from the date of this amendment until the next shutdown but no later than midnight, August 22, 1977.

It is our understanding that since the delay in performing the surveillance requirement, other than that authorized by this amendment, occurred due to your misunderstanding of the surveillance intervals, you intend to review the other surveillance specifications to verify that your scheduled performance dates are acceptable.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Enclosures and cc: See next page

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DATE ➤	8/5/77	8/5/77	8/5/77	8/5/77	8/3/77	

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Enclosures:
1. Amendment No. 6
2. Safety Evaluation
3. Notice

cc w/enclosures:

Mr. S. A. Brandimore
Vice President and General Counsel
P. O. Box 14042
St. Petersburg, Florida 33733

Mr. Wilbur Langely, Chairman
Board of County Commissioners
Citrus County
Iverness, Florida 36250

U. S. Environmental Protection Agency
Region IV Office
ATTN: EIS COORDINATOR
345 Courtland Street, N. E.
Atlanta, Georgia 30308

Chief, Energy Systems Analyses Branch
(AW-459)
Office of Radiation Programs
U. S. Environmental Protection Agency
Room 645, East Tower
401 M Street, S. W.
Washington, D. C. 20460

Crystal River Public Library
Crystal River, Florida 32629

cc w/enclosures and incoming
dtd 8/4/77
Bureau of Intergovernmental Relations
660 Apalchee Parkway
Tallahassee, Florida 32304

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. 6
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 4, 1977, 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, 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:

2.C.(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 6, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 5, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 6

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed 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.

Pages

3/4 8-4

3/4 8-5

SURVEILLANCE REQUIREMENTS

c. Demonstrated OPERABLE by determining that each battery supplying DC control power to the 230kv switchyard breakers is OPERABLE;

1. At least once per 7 days by verifying that:

a) The electrolyte level of each pilot cell is between the minimum and maximum level indication marks,

b) The pilot cell specific gravity, corrected to 77°F, and full electrolyte level is $\geq$ 1.20.

c) The pilot cell voltage is $\geq$ 2.15 volts, and

d) The overall battery voltage is $\geq$ 120 volts.

2. At least once per 92 days by verifying that:

a) The voltage of each connected cell is $\geq$ 2.15 volts under float charge and has not decreased more than 0.10 volts from the value observed during the base-line tests, and

b) The specific gravity, corrected to 77°F, and full electrolyte level of each connected cell is $\geq$ 1.20 and has not decreased more than 0.01 from the value observed during the previous tests, and

c) The electrolyte level of each connected cell is between the minimum and maximum level indication marks.

3. At least once per 18 months by verifying that:

a) The cells, cell plates and battery racks show no visual indication of physical damage or adnormal deterioration.

b) The cell-to-cell and terminal connections are clean, tight and coated with anti-corrosion materials,

c) The battery charger will supply at least 95 amperes at 125 volts for at least 2 hours.

SURVEILLANCE REQUIREMENTS (Continued)

4. At least once per 18 months, by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for 1 hour when the battery is subjected to a battery service test.

5. At least once per 60 months, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test shall be performed subsequent to the satisfactory completion of the required battery service test.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the day fuel tank,

2. Verifying the fuel level in the fuel storage tank,

3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,

4. Verifying the diesel starts from ambient condition and accelerates to at least 900 rpm in $\leq$ 10 seconds,

5. Verifying the generator is synchronized, loaded to $\geq$ 1500 kw, and operates for $\geq$ 60 minutes, and

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

b. At least once each 92 days by verifying that a sample of diesel fuel from the fuel storage tank is within the acceptable limits specified in Table 1 of ASTM D975-68 when checked for viscosity, water and sediment.

c. At least once per 18 months *during shutdown by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service,

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying the generator capability to reject a load of ≥ 515 kw without tripping,

3. Simulating a loss of offsite power in conjunction with reactor building high pressure and reactor building high-high pressure test 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 ≥ 5 minutes while its generator is loaded with the emergency loads.

4. Verifying the diesel generator operates for ≥ 60 minutes while loaded to ≥ 3000 kw,

5. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 3000 kw, and

6. Verifying that the automatic load sequence timers are OPERABLE with each load sequence time within ± 10%.

*For the first surveillance demonstration following the initial performance of the surveillance requirements of Section 4.8.1.1.2.c.4, this interval, including the maximum allowable extension of 25% of this interval, may be extended to the next scheduled shutdown but no later than midnight, August 22, 1977.

ELECTRICAL POWER SYSTEMS

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

1. Day fuel tank containing a minimum volume of 400 gallons of fuel,

2. A fuel storage system containing a minimum volume of 20,300 gallons of fuel, and

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes until the minimum required A.C. electrical power sources are restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2, except requirement 4.8.1.1.2.a.5.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 6 TO LICENSE NO. DPR-72

FLORIDA POWER CORPORATION, ET AL

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

DOCKET NO. 50-302

Introduction

By letter dated August 4, 1977, Florida Power Corporation (FPC) informed us that due to a misunderstanding, Technical Specification 4.8.1.1.2.c.4, a demonstration of diesel generator operability for Crystal River Unit 3 (CR-3), had not been performed during the required interval. In addition, FPC requested an extension of the surveillance time interval required under this Technical Specification. This Specification requires that each diesel generator be demonstrated operable at least once every 18 months during shutdown by verifying the diesel generator operates for $\geq$ 60 minutes while loaded to $\geq$ 3000 kw.

FPC stated that the 18-month inverval, plus the allowable extension of 25% authorized by Specification 4.0.2.a, ended on July 4, 1977. The starting point for this interval was the previous operability demonstration completed prior to initial criticality of this facility. It had been FPC's understanding that the surveillance intervals began at receipt of operating license (issued December 3, 1976) until informed otherwise by an NRC inspector.

FPC has also stated that a comparison of load demand forecasts for August 1977, to net generating capability including purchased power, indicates that the loss of CR-3 generation would result in a deficiency of approximately 350 MW(e). Therefore, they have requested an extension of the deadline for this demonstration of diesel generator operability until midnight August 22, 1977, by which time other power sources will be available.

Evaluation

The time intervals given in the Technical Specifications are set forth as general guidance for surveillance programs and are not safety limits. In the case of the diesel generators, the program specified in Specification 4.8.1.1.2.c.4 must be performed while the reactor is shutdown. The 18-month interval was determined from the fact that a

pressurized water reactor of the Crystal River Unit 3 type is expected to be shutdown for refueling about every 18 months, and that the testing of the diesel generators would be performed during reactor refueling.

In order to provide operational flexibility because of scheduling and performance considerations, Specification 4.0.2.a provides a tolerance of up to 25 percent for performing surveillance activities beyond the nominal surveillance interval.

The total time interval between successive tests of the diesel generators, as authorized by Specifications 4.8.1.1.2.c.4 and 4.0.2.a, is 22-1/2 months. FPC's failure to perform the surveillance during the past 4 weeks plus the requested additional 3 weeks, totaling 7 weeks, is short relative to the 22-1/2-month interval authorized. Therefore, the 3-week extension, in addition to the 4-week delay already incurred, does not significantly reduce the assurance that the diesel generators will be capable of performing their safety function if called upon to do so during this interval.

Additional assurance that the diesel generators will function properly is provided by FPC's performance of surveillance requirement 4.8.1.1.2.a.5. This requires that the diesel generators be operated $\geq$ 60 minutes loaded to $\geq$ 1500 kw at least once per 31 days. FPC procedures for performing this test require loading of 2750 kw.

Based on the above, we have determined that the total 7-week extension of the surveillance interval does not involve a significant increase in the probability or consequences of an accident or a significant decrease in a safety margin. Accordingly, FPC's request for an extension until midnight August 22, 1977, is acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does 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: August 5, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-302

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

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 6 to Facility Operating License No. DPR-72, issued to the 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., and the City of Tallahassee (the licensees) which revised Technical Specifications for operation of the Crystal River Unit No. 3 Nuclear Generating Plant located in Citrus County, Florida. The amendment is effective as of the date of issuance.

The amendment revises Technical Specification 4.8.1.1.2.c.4 to extend the interval for a demonstration of diesel generator operability from the date of this amendment until the next shutdown but no later than midnight, August 22, 1977.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated August 4, 1977 , (2) Amendment No. 6 to License No. DPR-72, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D.C. and at the Crystal River Public Library, Crystal River, Florida. A copy of items (2) and (3) may be obtained upon request

addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 5th day of August 1977.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors