April 7, 1987

Docket No. 50-302

Mr. Walter S. Wilgus
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Dear Mr. Wilgus:

The Commission has issued the enclosed Amendment No. 98 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 September 2, 1986, as supplemented January 15, 1987,(No. 146).

This amendment relaxes the requirements for diesel generator (DG) testing in Section 3.8.1.1, Actions a, b, c and d. The requirements to demonstrate DG operability within one hour of loss of AC power source and every eight hours thereafter are deleted. Instead TS 3.8.1.1.a and b require that operability be demonstrated within 24 hours, and TS 3.8.1.1.c and d require demonstration of operability within eight hours.

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

Sincerely,

Brenda Mozafari

Brenda Mozafari, Project Manager
PWR Project Directorate #6
Division of PWR Licensing-B

Enclosures:
1. Amendment No. 98 to DPR-72
2. Safety Evaluation

cc w/enclosures:
See next page

PBD-6	PBD-6	PBD-6	PBD-6	PBD-6	OGC
RIngram	HSilver	BMozafari:bd	RWeller	JStolz	
3/23/87	3/23/87	3/23/87	3/25/87	3/25/87	3/30/87

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Mr. W. S. Wilgus
Florida Power Corporation

Crystal River Unit No. 3 Nuclear
Generating Plant

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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. 98
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 September 2, 1986, as supplemented January 15, 1987, 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:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 98 , 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

John F. Stolz, Director
PWR Project Directorate #6
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 7, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 98

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	Insert
3/4 8-1	3/4 8-1
3/4 8-2	3/4 8-2
B 3/4 8-1	B 3/4 8-1

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A. C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

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

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Two separate and independent diesel generators each with:

1. A separate day fuel tank containing a minimum volume of 400 gallons of fuel,

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

3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one of the above offsite circuits inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and 4.8.1.1.2.a.4 within 24 hours, unless the diesel generators are already operating. Restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one diesel generator inoperable, demonstrate the operability of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and 4.8.1.1.2.a.4 within 24 hours. Restore two diesel generators to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and 4.8.1.1.2.a.4 within 8 hours, unless the diesel generator is already operating. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION (continued)

d. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two off-site circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each independent circuit between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability.

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring unit power supply from the normal circuit to the alternate circuit.

BASES

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources is consistent with the initial condition assumptions of the safety analyses and is based upon maintaining at least one of each of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

For the purposes of the diesel generator start testing, "ambient condition" means the diesel engine coolant and oil are being continuously circulated and maintained at a temperature consistent with the manufacturer's recommendations.

All preplanned diesel generator starts, including action statement required starts, may be preceded by prelube and or other warmup procedures recommended by the manufacturer. Additionally, except for the 18-month simulated loss of offsite power diesel test, all preplanned diesel generator runs, including action statement required runs, may be gradually loaded, reloaded and unloaded as recommended by the manufacturer. The purpose of following these manufacturer's recommendations is to minimize the mechanical and thermal stress and wear on the diesel engine.

Diesel generator operability is normally demonstrated by carrying load. Because the diesel generator can be affected by offsite disturbances when it is synchronized with the grid, the diesel loading may be limited or eliminated during inclement weather (i.e., lightning, etc.) or any other time loading would present a safety concern. In cases as outlined above, diesel operability is not contingent upon loading.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown and refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 98 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 September 2, 1986, as supplemented January 15, 1987, Florida Power Corporation (FPC or the licensee) requested amendment to the Technical Specifications (TSs) appended to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). The proposed amendment would relax the requirements for diesel generator (DG) testing in Section 3.8.1.1, Actions a, b, c and d. The licensee proposes to delete the requirement to demonstrate DG operability within one hour and every eight hours thereafter. In lieu of the preceding, the licensee proposes to substitute a requirement to demonstrate DG operability within 24 hours for Actions a and b, and within eight hours for Actions c and d.

EVALUATION

The licensee's proposal addresses two areas of NRC staff concern. One deals with increasing DG reliability by decreasing the frequency of DG testing. The proposed TS change would reduce the number of tests per DG in Actions a and b from a possible nine tests in 72 hours to one test in 72 hours. There would also be a commensurate reduction in tests per DG in Actions c and d. The proposed changes are consistent with the current NRC staff position with regard to the concept of reducing DG testing and the specific number of tests required for a given period of time. The second area of NRC staff concern deals with activity at a nuclear plant immediately following degradation or loss of an AC power source. Our opinion is that activities in this event should be concentrated on ensuring adequate core cooling and determining the cause of degradation or loss of the AC power source. The requirement to demonstrate DG operability within one hour after the above loss takes operators away from potentially more critical activities. Therefore, the licensee's proposal to delete this requirement and substitute a requirement to demonstrate DG operability within 24 hours is also consistent with the current NRC staff position.

Based on our review, we conclude that the licensee's proposed TS Section 3/4.8.1, in general, is acceptable for the above stated reasons. In the January 15, 1987 supplement, the licensee submitted a revision to Section 3/4.8, Electrical Power Systems Bases. NRC staff had expressed concern that the licensee's proposal indicated that DG operability can be demonstrated by performing Surveillance Requirement 4.8.1.1.2.a.4. This

portion of the surveillance deals with demonstrating that the DG starts and accelerates to rated speed and voltage. It does not require that the DG be loaded. It is our position that a demonstration of DG operability includes the ability to accept and carry load. We acknowledge, however, that there are circumstances under which paralleling a DG with the grid for the purpose of loading is not recommended. These circumstances include any time there is grid instability, or potential instability such as when a hurricane or fire threatens transmission lines.

The January 15, 1987 Bases revision contains a commitment to demonstrate DG operability by carrying load unless circumstances would constrain loading. Thus, DG loading may be limited or eliminated during inclement weather or whenever loading would present a safety concern. We have determined the change to the Bases is an acceptable method of addressing the above mentioned concerns.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in surveillance requirements. 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) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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: April 7, 1987

Principal Contributors: E. Tomlinson