

February 16, 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 RE: TESTING OF
HIGH AND LOW PRESSURE INJECTION SYSTEMS
(TAC NO. 64763)

The Commission has issued the enclosed Amendment No. 110 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 April 15, 1987.

This amendment revises the Technical Specifications surveillance requirements to allow testing of the high and low pressure injection systems in Modes 3, 4, 5, or 6, rather than in Mode 6 only.

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. 110 to DPR-72
- 2. Safety Evaluation

cc w/enclosures:
See next page

Handwritten notes and signatures:
 - *OK received 2/16/89*
 - *no all 2/16/89*
 - *note 2/16/89*
 - *OK*
 - *OK STATE inf. issuance*
 - *OGC-WF*
 - *2/10/89*
 - *DFOL*
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Mr. W. S. Wilgus
Florida Power Corporation

Crystal River Unit No. 3 Nuclear
Generating Plant

cc:

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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. 110
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 April 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.

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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. 110, 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: February 16, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 110

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

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

Remove

3/4 5-5

Insert

3/4 5-5

EMERGENCY CORE COOLING SYSTEMS
SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying the correct position of each mechanical position stop for each of the stop check valves listed in Specification 4.5.2.c.
3. Verifying that the flow controllers for the throttle valves listed in Specification 4.5.2.d. operate properly.
4. A visual inspection of the containment emergency sump which verifies that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.
5. Verifying a total leak rate less than or equal to 6 gallons per hour for the LPI system at:
 - a) Normal operating pressure or a hydrostatic test pressure of greater than or equal to 150 psig for those parts of the system downstream of the pump suction isolation valve, and
 - b) Greater than or equal to 55 psig for the piping from the containment emergency sump isolation valve to the pump suction isolation valve.
- f. At least once per 18 months during Mode 3, 4, 5, or 6, by
 1. Verifying that each automatic valve in the flow path actuates to its correct position on a high pressure or low pressure safety injection test signal, as appropriate.
 2. Verifying that each HPI and LPI pump starts automatically upon receipt of a high pressure or low pressure safety injection test signal, as appropriate.
- g. Following completion of HPI or LPI system modifications that could have altered system flow characteristics ¹, by performance of a flow balance test during shutdown to confirm the following injection flow rates into the Reactor Coolant System:

HPI System - Single Pump²

Single pump flow rate greater than or equal to 500 gpm at 600 psig.

While injecting through 4 injection Legs, the flow rate for all combinations of 3 Injection Legs greater than or equal to 350 gpm at 600 psig.

LPI System - Single Pump

1. Injection Leg A -
2800 to 3100 gpm.

2. Injection Leg B -
2800 to 3100 gpm.

¹ Flow balance tests performed prior to complete installation of modifications are valid if performed with the system change that could alter flow characteristics in effect.

² The HPI Flow Balance Test shall be performed in MODE 3.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 110 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 April 15, 1987, Florida Power Corporation (FPC, or the licensee) requested an 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 revise the surveillance requirements of paragraph 4.5.2.f to allow testing of the high and low pressure injection systems in Modes 3, 4, 5, or 6 rather than in Mode 6 only.

EVALUATION

The surveillance requirement 4.5.2.f requires verification that each automatic valve in the Emergency Core Cooling System flow path actuate to its correct position and that each High Pressure Injection (HPI) and Low Pressure Injection (LPI) pump start automatically on receipt of a high or low pressure safety injection test signal. This surveillance requirement is required to be performed at 18 month intervals in Mode 6. The licensee has requested that the TS surveillance requirement to test high and low pressure injection pumps and valves during Mode 6 be changed to allow the testing to be accomplished during Modes 3, 4, 5, or 6 because testing in Mode 6 only is not always feasible due to periods between refueling outages extending to greater than 18 months. Additionally, by providing the flexibility to perform this testing during several modes, the licensee can better optimize outage time.

The original requirement to perform the HPI and LPI testing while in Mode 6 was placed in TS to satisfy the licensee commitments for low Temperature Overpressurization Protection (LTOP). Testing the HPI pumps while the reactor vessel head was removed assured that a reactor vessel overpressure condition would not occur. In Licensee Event Report (LER) 84-23, Revision 1, dated February 10, 1986, the licensee revised its original commitments regarding LTOP providing justification to allow HPI pump testing per TS 4.5.2.f in Modes 3, 4, 5, or 6. The B&W Standard Technical Specifications (STS) permit such testing "during shutdown" (i.e., modes 3, 4, 5, and 6). Testing in these modes is acceptable, providing adequate precautions are taken to assure LTOP is provided. The licensee has shown full understanding of the necessary precautions as demonstrated by the following commitments in LER 54-23, Revision 1:

1. Crystal River Unit 3 will manually enable the power operated relief valve (PORV) low pressure setpoint (550 psig) during cooldown at 250°F and enable the PORV normal pressure setpoint (2450 psig) during heatup at 280°F.

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2. Motor operated valves (MOVs) MUV-23, MUV-24, MUV-25, and MUV-26 will be closed and de-energized with their circuit breakers "red tagged" in the "locked reset" position to the Nuclear Shift Supervisor whenever the reactor coolant temperature is below 265°F. If maintenance, testing, or other plant conditions require operation of these valves, the following requirements will be met:
 - a. Double valve isolation on the main and recirculation discharge lines is maintained between injection trains, and
 - b. The HPI pump in the affected train is de-energized with its circuit breaker "locked out" and "red tagged" to the Nuclear Shift Supervisor, and
 - c. The HPI pump suction or discharge valve in the affected train is de-energized with its circuit breaker in the "locked reset" position and "red tagged" to the Nuclear Shift Supervisor.
3. No testing of the HPI pumps (normal operation of a single makeup pump is exempt) will be performed when the reactor coolant temperature is below 280°F unless double valve isolation is maintained between the RCS and all flow paths from the pump(s) being tested.
4. CR-3 will maintain the pressurizer level at or below 180 inches during cooldowns and heatups when the reactor coolant pressure is below 550 psig and above 100 psig; pressurizer level will be maintained below 270 inches when the reactor pressure is below 100 psig.

The licensee states all administrative commitments for LTOP are incorporated into procedures and controlled by the procedure review and change process. In addition, the commitment tracking system is utilized with each procedure change to ensure that commitments are not modified unintentionally. Testing using these procedures has been successfully performed in the past.

Based on our review, we conclude that the proposed TS (supported by the licensee's commitments, the procedures implementing them, and the controls thereon) provide reasonable assurance that the LTOP will be provided and that HPI and LPI may be safety tested in Modes 3, 4, 5, or 6, as permitted by the STS.

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: February 16, 1989

Principal Contributors:

S. G. Tingen
H. Silver

DATED: February 16, 1989

AMENDMENT NO. 110 TO FACILITY OPERATING LICENSE NO. DPR-72-CRYSTAL RIVER UNIT 3

Docket File

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