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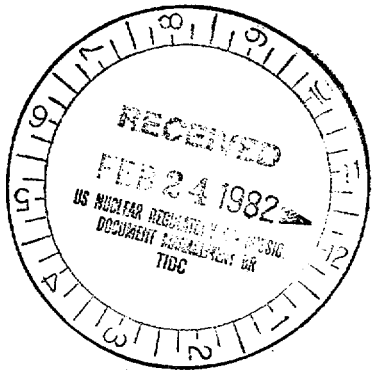
Docket No. 50-302



Mr. J. A. Hancock
Vice President
Nuclear Operations
Florida Power Corporation
ATTN: Manager, Nuclear Licensing
P. O. Box 14042; M.A.C. H-2
St. Petersburg, Florida 33733

Dear Mr. Hancock:

The Commission has issued the enclosed Amendment No. 51 to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated February 8, 1982 (TS Change Request No. 93).

This amendment allows a one time only bypassing of the reactor coolant pump power monitor trip function at less than 40% full power in order to conduct tests. The tests involve switchover between the startup and the unit auxiliary transformers while monitoring the reactor coolant flow and the 6900 volt bus current and voltage.

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

Sincerely,

"ORIGINAL SIGNED BY"

Sydney Miner, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Amendment No. 51
2. Safety Evaluation
3. Notice

cc w/enclosures:
See next page

FR NOTICE + AMENDMENT

OFFICE	ORB#4:DL	ORB#4:DP	C-ORB#4:DL	AD:OR:DL	OELD		
SURNAME	RIngram	SMiner:sm	JStolz	TNovak	KARMAN		
DATE	2/11/82	2/11/82	2/11/82	2/12/82	2/13/82		

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

February 16, 1982

DISTRIBUTION:
Docket File
ORB#4 Rdg
RIngram

Docket No. 50-302

Docketing and Service Section
Office of the Secretary of the Commission

SUBJECT: CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (12) of the Notice are enclosed for your use.

☐ Notice of Receipt of Application for Construction Permit(s) and Operating License(s).

☐ Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.

☐ Notice of Availability of Applicant's Environmental Report.

☐ Notice of Proposed Issuance of Amendment to Facility Operating License.

☐ Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.

☐ Notice of Availability of NRC Draft/Final Environmental Statement.

☐ Notice of Limited Work Authorization.

☐ Notice of Availability of Safety Evaluation Report.

☐ Notice of Issuance of Construction Permit(s).

☒ Notice of Issuance of Facility Operating License(s) or Amendment(s).

☒ Other: Amendment No. 51.
Referenced documents have been provided PDR.

Division of Licensing, ORB#4
Office of Nuclear Reactor Regulation

Enclosure:
As Stated

OFFICE →	ORB#4:DL					
SURNAME →	RIngram;cf					
DATE →	2/16/82					

NRC FORM 102 (1-76)

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

February 12, 1982

Docket No. 50-302

Mr. J. A. Hancock
Vice President
Nuclear Operations
Florida Power Corporation
ATTN: Manager, Nuclear Licensing
P. O. Box 14042; M.A.C. H-2
St. Petersburg, Florida

Dear Mr. Hancock:

The Commission has issued the enclosed Amendment No. 51 to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated February 8, 1982 (TS Change Request No. 93).

This amendment allows a one time only bypassing of the reactor coolant pump power monitor trip function at less than 40% full power in order to conduct tests. The tests involve switchover between the startup and the unit auxiliary transformers while monitoring the reactor coolant flow and the 6900 volt bus current and voltage.

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

Sincerely,

Sydney Miner, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosures:
1. Amendment No. 51
2. Safety Evaluation
3. Notice

cc w/enclosures:
See next page

Crystal River Unit No. 3
Florida Power Corporation

50-302

cc w/enclosure(s):

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

Regional Radiation Representative
EPA Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Crystal River Public Library
668 N. W. First Avenue
Crystal River, Florida 32629

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 220, 7910 Woodmont Avenue
Bethesda, Maryland 20814

Mr. Tom Stetka, Resident Inspector
U.S. Nuclear Regulatory Commission
Route #3, Box 717
Crystal River, Florida 32629

Mr. Dan C. Poole
Nuclear Plant Manager
Florida Power Corporation
P. O. Box 219
Crystal River, Florida 32629

cc w/enclosure(s) & incoming dtd.:
2/8/82

Bureau of Intergovernmental Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

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

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission, Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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. 51
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 February 8, 1982, 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) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 51 , 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

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 12, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 51

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.

3/4 3-2

3/4 3-3

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1.1 As a minimum, the Reactor Protection System instrumentation channels and bypasses of Table 3.3-1 shall be OPERABLE with RESPONSE TIMES as shown in Table 3.3-2.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1.1 Each Reactor Protection System instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the MODES and at the frequencies shown in Table 4.3-1.

4.3.1.1.2 The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each channel affected by bypass operation.

4.3.1.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

TABLE 3.3-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

	FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1.	Manual Reactor Trip	1	1	1	1, 2 and *	8
2.	Nuclear Overpower	4	2	3	1, 2	2#
3.	RCS Outlet Temperature--High	4	2	3	1,2	3#
4.	Nuclear Overpower Based on RCS Flow and AXIAL POWER IMBALANCE	4	2(a)	3	1, 2	2#
5.	RCS Pressure--Low	4	2(a)	3	1, 2	3#
6.	RCS Pressure--High	4	2	3	1, 2	3#
7.	Variable Low RCS Pressure	4	2(a)	3	1, 2	3#
8.	Reactor Containment Pressure--High	4	2	3	1, 2	3#
9.	Intermediate Range, Neutron Flux and Rate	2	0	2	1, 2 and *	4
10.	Source Range, Neutron Flux and Rate					
	A. Startup	2	0	2	2## and *	5
	B. Shutdown	2	0	1	3, 4 and 5	6
11.	Control Rod Drive Trip Breakers	2 per trip system	1 per trip system	2 per trip system	1, 2 and *	7#
12.	Reactor Trip Module	2 per trip system	1 per trip system	2 per trip system	1, 2 and *	7#
13.	Shutdown Bypass RCS Pressure--High	4	2	3	2**, 3** 4**, 5**	6#
14.	Reactor Coolant Pump Power Monitors	4	2(a,b)	3	1***, 2***	3#

TABLE 3.3-1 (Continued)

TABLE NOTATION

* With the control rod drive trip breakers in the closed position and the control rod drive system capable of rod withdrawal.

** When Shutdown Bypass is actuated.

*** For one time only, the reactor coolant pump power monitor trip function may be manually bypassed in Modes 1 and 2 (at less than 40% Full Power) for the duration of special testing. These tests are to be conducted following startup from the unit outage which began on January 28, 1982.

\# The provisions of Specification 3.0.4 are not applicable.

\#\# High voltage to detector may be deenergized above 10^{-10} amps on both Intermediate Range channels.

(a) Trip may be manually bypassed when RCS pressure $\leq$ 1720 psig by actuating Shutdown Bypass provided that:

(1) The Nuclear Overpower Trip Setpoint is $\leq$ 5% of RATED THERMAL POWER,
(2) The Shutdown Bypass RCS Pressure--High Trip Setpoint of $\leq$ 1720 psig is imposed, and
(3) The Shutdown Bypass is removed when RCS pressure > 1800 psig.

(b) Trip may be manually bypassed when reactor power is less than 40% to perform the following operations:

(1) Switchover between Startup and Unit Auxiliary Transformers,
(2) Energizing an idle Reactor Coolant Pump, or
(3) Deenergizing an active Reactor Coolant Pump.

ACTION STATEMENTS

ACTION 1 - With the number of channels **OPERABLE** one less than required by the Minimum Channels **OPERABLE** requirement, restore the inoperable channel to **OPERABLE** status within 48 hours or be in at least **HOT STANDBY** within the next 6 hours and/or open the control rod drive trip breakers.

ACTION 2 - With the number of **OPERABLE** channels one less than the Total Number of Channels, **STARTUP** and/or **POWER OPERATION** may proceed provided all of the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within one hour.

b. The Minimum Channels **OPERABLE** requirement is met: however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

and the inoperable channel above may be bypassed for up to 30 minutes in any 24 hour period when necessary to test the trip breaker associated with the logic of the channel being tested per Specification 4.3.1.1, and

c. Either, THERMAL POWER is restricted to $\leq$ 75% of RATED RATED THERMAL and the Nuclear Overpower Trip Setpoint is reduced to $\leq$ 85% of RATED THERMAL POWER within 4 hours or the QUADRANT POWER TILT is monitored at least once per 12 hours.

ACTION 3 - With the number of OPERABLE channels one less than the Total Number of Channels STARTUP and POWER OPERATION may proceed provided both of the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within one hour.

b. The Minimum Channels OPERABLE requirement is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, and the inoperable channel above may be bypassed for up to 30 minutes in any 24 hour period when necessary to test the trip breaker associated with the logic of the channel being tested per Specification 4.3.1.1.

Action 4 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement and with the THERMAL Power level:

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 51 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 application dated February 8, 1982, Florida Power Corporation (FPC or the licensee) requested changes to the Technical Specifications (TSs) of Facility Operating License No. DPR-72 for operation of the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). These changes would allow a one time only operation at less than 40% power with the reactor coolant pump power monitor trip bypassed while conducting tests. The tests involve the switchover between the startup and the unit auxiliary transformers while monitoring the reactor coolant flow and the 6900 volt bus current and voltage.

Discussion and Evaluation

The pump power monitors are devices that monitor the electrical power to each of the four reactor coolant pumps at CR-3. These monitors trip the reactor on a loss of power or a draw of too much power from two or more reactor coolant pumps. Therefore, the system determines a loss or a reduction of the reactor coolant flow by monitoring the reactor coolant pump power and detecting an inoperable pump by abnormal power conditions.

The pump power monitors were installed to allow CR-3 reactor power to be increased from 2452 Mwt to 2544. The NRC authorized this power increase on July 21, 1981. The pump power monitors had not been required for the lower, 2452 Mwt, reactor power level because the response of other reactor protection systems was fast enough to detect pump failure at that power level.

FPC has recently experienced reactor trips from the pump power monitor system when starting reactor coolant pumps and when switching electrical power from the CR-3 auxiliary transformers to the startup transformer. On three occasions (twice in Mode 3 during startup and once in Mode 1 during controlled shutdown), the pump power monitor trip has caused a reactor trip. Testing in Mode 3 indicated that the monitored parameter (bus power in watts) did in fact go through a very short-lived (< 1 sec.) transient when energizing an idle reactor coolant pump. It is thought that a similar transient occurred during the switchover from the unit auxiliary to the startup transformer and that it could occur when deenergizing an active reactor coolant pump.

The proposed tests will measure trip function parameters during unit operation and transformer switchover. The results of these tests will be used to determine trip setpoints which will avoid spurious trips while maintaining the reactor coolant pump power monitor safety function. This TS change will allow the testing to be performed.

We have determined that operation at 40% or less reactor power with the pump power trip bypassed during the proposed testing is acceptable because: 1) the pump power trip is primarily needed at or near full power operations to compensate for slower reactor times of other reactor protection systems, and 2) the pump power monitor trip is backed up by the flux-flow trip and a high pressure trip for a loss of two or more reactor coolant pumps.

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: February 12, 1982

The following NRC personnel have contributed to this Safety Evalution: Sydney Miner.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-302

FLORIDA POWER CORPORATION, ET AL

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 51 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 the Technical Specifications (TSs) for operation for the Crystal River Unit No. 3 Nuclear Generating Plant (the facility) located in Citrus County, Florida. The amendment is effective as of the date of issuance.

The amendment allows a one time only bypassing of the reactor coolant pump power monitor trip function at less than 40% full power in order to conduct tests. The tests involve switchover between the startup and the unit auxiliary transformers while monitoring the reactor coolant flow and the 6900 volt bus current and voltage.

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 or negative declaration and 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 February 8, 1982, (2) Amendment No. 51 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, NW, Washington, D.C., and at the Crystal River Public Library, 668 N.W. First Avenue, 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 Licensing.

Dated at Bethesda, Maryland, this 12th day of February 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing