

October 16, 2001

Mr. Dale E. Young, Vice President  
Crystal River Nuclear Plant (NA1B)  
ATTN: Supervisor, Licensing & Regulatory Programs  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - ISSUANCE OF AMENDMENT REGARDING  
ALLOWANCE OF A ONE-TIME EXTENSION OF COMPLETION TIME FOR  
TECHNICAL SPECIFICATION LCO 3.7.18 AND AN ASSOCIATED WAIVER OF  
LCO 3.0.4 REQUIREMENTS (TAC NO. MB1617)

Dear Mr. Young:

The Commission has issued the enclosed Amendment No. 200 to Facility Operating License No. DPR-72 for the Crystal River Unit 3. The amendment consists of changes to the existing Technical Specifications in response to your letter dated March 28, 2001, as supplemented July 19, and October 2, 2001. The amendment revises Improved Technical Specification 3.7.18, "Control Complex Cooling System," to allow a one-time increase in the completion time for restoring an inoperable Control Complex Cooling System train from 7 to 35 days. The ability to apply the one-time 35-day Completion Time to each Control Complex Cooling System train will expire on December 31, 2002. Regulatory commitments have been made by Florida Power Corporation in the March 28, 2001, letter to the Nuclear Regulatory Commission.

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

Sincerely,

*/RA/*

John M. Goshen, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures:

1. Amendment No. 200 to DPR-72
2. Safety Evaluation

cc w/encls: See next page

October 16, 2001

Mr. Dale E. Young, Vice President  
Crystal River Nuclear Plant (NA1B)  
ATTN: Supervisor, Licensing & Regulatory Programs  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 - ISSUANCE OF AMENDMENT REGARDING  
ALLOWANCE OF A ONE-TIME EXTENSION OF COMPLETION TIME FOR  
TECHNICAL SPECIFICATION LCO 3.7.18 AND AN ASSOCIATED WAIVER OF  
LCO 3.0.4 REQUIREMENTS (TAC NO. MB1617)

Dear Mr. Young:

The Commission has issued the enclosed Amendment No. 200 to Facility Operating License No. DPR-72 for the Crystal River Unit 3. The amendment consists of changes to the existing Technical Specifications in response to your letter dated March 28, 2001, as supplemented July 19, and October 2, 2001. The amendment revises Improved Technical Specification 3.7.18, "Control Complex Cooling System," to allow a one-time increase in the completion time for restoring an inoperable Control Complex Cooling System train from 7 to 35 days. The ability to apply the one-time 35-day Completion Time to each Control Complex Cooling System train will expire on December 31, 2002. Regulatory commitments have been made by Florida Power Corporation in the March 28, 2001, letter to the Nuclear Regulatory Commission.

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

Sincerely,

**/RA/**

John M. Goshen, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures:

1. Amendment No. 200 to DPR-72
2. Safety Evaluation

cc w/encls: See next page

**DISTRIBUTION:**

PUBLIC	RidsRgn2MailCenter (JMonninger)	MReinhart(e-mail)
PDII-2 Reading	JGoshen (e-mail)	RidsOgcRp
RidsNrrDlpmLpdii2 (RCorreia)	RidsAcrsAcnwMailCenter	GHill (2) (Hard copy)
BClayton (Hard copy)	RidsNrrDlpmLpdii (HBerkow)	JSchiffgens(e-mail)
GHubbard	WBeckner	

**Accession Number ML012900273**

\*See previous concurrence

OFFICE	PDII-2/PM	PDII-2/LA	SPLB/SC *	PDII-2/SC	OGC *
NAME	JGoshen	BClayton	GHubbard	RCorreia	DCummings
DATE	10/11/01	10/11/01	10/01/01	10/15/01	10/05/01

OFFICIAL RECORD COPY



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  
SEMINOLE ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-302

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 200  
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 March 28, 2001, as supplemented July 19, and October 2, 2001, 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. 200, 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 and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Richard P. Correia, Chief, Section 2  
Project Directorate II  
Division of Project Licensing Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the  
Technical Specifications

Date of Issuance: October 16, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 200

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.

Remove

3.7-37

B 3.7-87

Insert

3.7-37

B 3.7-87

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 200 TO FACILITY OPERATING LICENSE NO. DPR-72  
FLORIDA POWER CORPORATION, ET AL.  
CRYSTAL RIVER UNIT NO. 3 NUCLEAR GENERATING PLANT  
DOCKET NO. 50-302

## 1.0 INTRODUCTION

By letter dated March 28, 2001, as supplemented July 19, and October 2, 2001, Florida Power Corporation (FPC, the licensee) submitted a request for changes to the Crystal River Unit 3 (CR-3) Technical Specifications (TS) and associated Bases pages. The U.S. Nuclear Regulatory Commission (NRC) requested additional information by letter dated May 24, 2001. FPC responded to this request by letter dated July 19, 2001. The amendment provides a temporary change to the CR-3 TS and the licensee supported its request with a safety assessment.

The amendment would revise the CR-3 Improved TS (ITS) Limiting Condition for Operation (LCO) 3.7.18, "Control Complex Cooling System," to allow a one-time increase in the completion time for restoring an inoperable Control Complex Cooling System (CCCS) train from 7 to 35 days. FPC also requested that the requirements of LCO 3.0.4, which are applicable to the current ITS LCO 3.7.18, be waived during the extended one-time 35-day completion time for each CCCS train. Approval of the amendment and waiver would expire December 31, 2002.

The July 19, and October 2, 2001, letters provided clarifying information that did not change the proposed no significant hazards consideration finding of the original *Federal Register* notice.

## 2.0 BACKGROUND

As a result of a recent evaluation of the CCCS chillers by FPC and York International (the chiller vendor), it was determined that the chiller evaporator and condenser tubes and tube support plates, key components to chiller reliability, should be replaced within the next 2 years. FPC estimates that 21 days are needed to complete the necessary chiller repairs for each train. Hence, in accordance with current ITS requirements, refurbishment can only be performed with the plant in Modes 5 or 6 (cold shutdown or refueling) with no movement of irradiated fuel assemblies in progress. Based on the schedule for the 2001 refueling outage and current ITS LCO 3.7.18 requirements, FPC estimates that adding the refurbishment of one of the chillers to the scope of the outage would increase the outage duration by 6 days and the cost by \$4.5 million. The one-time extension of the completion times to 35 days for each chiller would allow the repairs to be made with the plant in Mode 1 (power operation) and preclude the need for an unscheduled Mode 5 maintenance outage or increases to the scope and duration of the 2001 and 2003 refueling outages. FPC would refurbish the "B" train during the first quarter of 2002 and the "A" train during the second quarter. The request for waiver of LCO 3.0.4 during the extended completion times would allow CR-3 to return to power operations with one operable train while chiller repairs are in progress on the other.

### 3.0 EVALUATION

The CCCS consists of two 100% capacity trains. Each train contains a chiller and chilled water pump powered from the same 1E electrical bus, and a duct-mounted air to water heat exchanger and is capable of maintaining normal control complex air temperature between 70 and 80 degrees F. The system is designed to provide sufficient cooling to satisfy personnel occupancy requirements and ensure that the thermal operability requirements of safety-related equipment located within the control complex, which includes the control room and the Engineered Safeguards (ES) 4160 volt and ES 480 volt switchgear rooms, the 1E battery charger and inverter rooms, the remote shutdown room, and the rooms housing the Emergency Feedwater Initiation and Control System cabinets are met. The Appendix R Chilled Water System can be aligned to provide backup cooling for control complex vital equipment located outside the control room.

According to the licensee, the only risk significant impact on core damage from chiller failure is the loss of heating, ventilation and air conditioning support to the emergency feedwater (EFW) control cabinets. Loss of cooling to the EFW control cabinets can cause the EFW control valves to inadvertently close. The licensee performed a probabilistic safety analysis of the change in plant configuration associated with the planned refurbishment of the chillers and requested a one-time ITS change and waiver. The estimated change in conditional core damage probability (CCDP) associated with one chiller out of service is  $6.3E-07$  per chiller, without taking credit for the Appendix R Chilled Water System. Taking into account the potential for realignment of the Appendix R Chilled Water System to cool control complex vital equipment, the estimated change in CCDP is  $2.6E-08$  per chiller.

Although the NRC staff did not review the details of the licensee's numerical analysis nor independently develop a numerical model of the proposed plant configuration during CCCS chiller refurbishment, the staff finds the associated increase in risk acceptably small for the following reasons:

1. Within the previous quarter, quarterly preventive maintenance, in accordance with CR-3 Preventive Maintenance Procedure PM-136, will have been performed on the CCCS train that will be operating when chiller repairs begin.
2. Should the operating train of the CCCS fail, the licensee will align the Appendix R Chilled Water System to supply 100% of the cooling requirements of the vital equipment areas of the control complex in less than 1 hour. Prior to starting chiller repairs, annual preventive maintenance will be performed on the Appendix R Chilled Water System, in accordance with CR-3 PM-139, and refresher training on the guidance used to align the Appendix R Chilled Water System to provide cooling to the control complex, CR-3 Operating Procedure OP-409, will be conducted.
3. Prior to initiation of chiller refurbishment, a portable 15-ton cooling unit will be staged and available to provide cooling for the control room within 1 hour. Should the operating train of the CCCS fail, the licensee will initiate cooling to the control room using the portable unit. This requires routing expandable ductwork from the unit into the control complex through the vestibule and control complex habitability envelope doors and starting the unit, according to guidance provided in CR-3 Maintenance Procedure MP-193.

4. According to the CR-3 ITS, should the operating train of the CCCS fail during chiller refurbishment the plant is required to be in Mode 3 (Hot Standby) within 6 hours and Mode 5 (Cold Shutdown) within 36 hours. This minimizes the time the plant would have to depend on backup cooling equipment and associated plant configuration.
5. The licensee has stated that during the time the recommended chiller repairs are in progress, maintenance and surveillance activities that have the potential to impact the performance of the redundant CCCS train, required support systems, and/or backup systems will be controlled in accordance with the normal work controls process. As part of this process, weekly qualitative and quantitative assessments of scheduled on-line maintenance activities, and additional risk assessments of emergent work activities will be performed in accordance with the guidance provided in CR-3 Compliance Procedure CP-253. If the results of these assessments indicate an increase in risk, appropriate actions to control temporary and aggregate risk increases and minimize risk increases above the overall plant baseline will be implemented in accordance with CP-253.

The numerical results of the licensee's analysis support the conclusion that the increase in risk associated with the proposed amendment is acceptably small. What the NRC staff considers to be a small estimated change in CCDP is discussed in Regulatory Guide 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications" and Standard Review Plan 16.1, "Risk-Informed Decisionmaking: Technical Specifications." However, it should be noted that neither of these guidance documents is rigorously applicable to "temporary" nor "one-time" changes.

Procedural guidance for plant startup and power escalation does not direct the performance of any activities that would impact the operating CCCS train, the Appendix R Chilled Water System, or required support systems. In addition, since the control complex safety-related equipment that is required to be operable in Mode 1 is the same as that required to be operable in Mode 3, power escalation will not increase the heat removal requirements for the operating CCCS train. For these reasons, and those stated above, the NRC staff believes that any additional risk that may be associated with the waiver of LCO 3.0.4 requirements during the requested one-time extensions is also acceptably small and finds this acceptable.

#### 4.0 STATE CONSULTATION

Based upon a letter dated March 8, 1991, from Mary E. Clark of the State of Florida, Department of Health and Rehabilitative Services, to Deborah A. Miller, Licensing Assistant, U.S. Nuclear Regulatory Commission, the State of Florida does not desire notification of issuance of license amendments.

#### 5.0 ENVIRONMENTAL CONSIDERATIONS

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC has 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 20006). Accordingly, the 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 the amendment.

## 6.0 CONCLUSION

The licensee has requested a license amendment that would revise LCO 3.7.18, "Control Complex Cooling System," to allow a one-time increase in the completion time for restoring an inoperable CCCS train from 7 to 35 days, and has also requested that the requirements of LCO 3.0.4, which are applicable to the current ITS LCO 3.7.18, be waived during the requested one-time 35-day completion time extension for each CCCS train. The NRC staff finds the risk associated with requested amendment and waiver acceptable.

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: John Schiffgens, NRR

Date: October 16, 2001

Florida Power Corporation

**CRYSTAL RIVER UNIT NO. 3  
GENERATING PLANT**

cc:

Mr. R. Alexander Glenn  
Associate General Counsel (MAC-BT15A)  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733-4042

Chairman  
Board of County Commissioners  
Citrus County  
110 North Apopka Avenue  
Inverness, Florida 34450-4245

Mr. Daniel L. Roderick  
Plant General Manager  
Crystal River Nuclear Plant (NA2C)  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

Ms. Sherry L. Bernhoft  
Manager Regulatory Affairs  
Crystal River Nuclear Plant (NA2H)  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

Mr. Michael A. Schoppman  
Framatome ANP  
1911 North Ft. Myer Drive, Suite 705  
Rosslyn, Virginia 22209

Senior Resident Inspector  
Crystal River Unit 3  
U.S. Nuclear Regulatory Commission  
6745 N. Tallahassee Road  
Crystal River, Florida 34428

Mr. William A. Passetti, Chief  
Department of Health  
Bureau of Radiation Control  
2020 Capital Circle, SE, Bin #C21  
Tallahassee, Florida 32399-1741

Mr. Richard L. Warden  
Manager Nuclear Assessment  
Crystal River Nuclear Plant (NA2C)  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

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

Mr. Joe Myers, Director  
Division of Emergency Preparedness  
Department of Community Affairs  
2740 Centerview Drive  
Tallahassee, Florida 32399-2100