



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  
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. 145  
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 June 13, 1991, as supplemented November 6, 1991, 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.

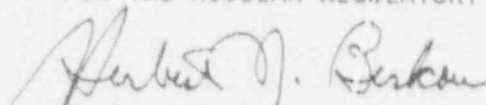
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-72 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 145, 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 start of the Cycle 9 mid-cycle outage, and shall be implemented before start-up from the Cycle 9 mid-cycle outage.

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: July 23, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 14F

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 Pages

3/4 6-12  
3/4 6-13  
B3/4 6-3

Insert Pages

3/4 6-12  
3/4 6-13  
B3/4 6-3

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months by verifying a total leak rate  $\leq 6$  gallons per hour for the system at:
  - 1. Normal operating pressure or a hydrostatic test pressure of  $\geq 190$  psig for those parts of the system downstream of the pump suction isolation valve, and
  - 2.  $\geq 55$  psig for the piping from the containment emergency sump isolation valve to the pump suction isolation valve.
- d. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

## CONTAINMENT SYSTEMS

### CONTAINMENT EMERGENCY SUMP pH CONTROL SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.6.2.2 The containment emergency sump pH control system shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4

#### ACTION:

Restore the containment emergency sump pH control system to OPERABLE within 72 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.2.2 At least once per refueling interval:

1. Verify that a minimum of  $250 \pm 4 \text{ ft}^3$  of trisodium phosphate dodecahydrate [ $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O} \cdot \frac{1}{2}\text{NaOH}$ ] (TSP-C) is contained within the three (3) TSP-C storage baskets.
2. Verify that a representative sample of TSP-C from a storage basket has a density of  $\geq 53 \text{ lbs/ft}^3$ .
3. Verify that the solubility of a representative sample of  $0.50 \pm 0.05$  lbs of TSP-C when submerged, without agitation, in  $20 \pm 1$  gallons of borated water taken from the BWST, heated to  $180^\circ\text{F} \pm 10^\circ\text{F}$ , raises the pH of the borated water to  $\geq 7.0$  within 4 hours.

DELETED

CRYSTAL RIVER - UNIT 3

3/4 6-13

Amendment No. ~~17, 46, 64~~, 145



CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION.

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3.6.2.3 At least two independent containment cooling units shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With one of the above required containment cooling units inoperable, restore at least two units to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

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4.6.2.3 At least the above required cooling units shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
  1. Starting (unless already operating) each unit from the control room,
  2. Verifying that each unit operates for at least 15 minutes, and
  3. Verifying a cooling water flow rate of  $\geq$  500 gpm to each unit cooler.
- b. At least once per 18 months by verifying that each unit starts automatically on low speed upon receipt of a containment cooling actuation test signal.

## CONTAINMENT SYSTEMS

### BASES

#### 3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. Containment isolation within the required time limits ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA. Containment Isolation Valves and their required isolation times are addressed in the FSAR. The opening of a closed inoperable containment isolation valve on an intermittent basis during plant operation is permitted under administrative control. Operating procedures identify those valves which may be opened under administrative control as well as the safety precautions which must be taken when opening valves under such controls.

#### 3/4.6.4 COMBUSTIBLE GAS CONTROLS

The OPERABILITY of the equipment and systems required for the detection and control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within containment below its flammable limit during post-LOCA conditions. The purge system is capable of controlling the expected hydrogen generation associated with 1) zirconium-water reactions, 2) radiolytic decomposition of water and 3) corrosion of metals within containment. These hydrogen control systems are consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a LOCA," March 1971.

In addition to the two in-place hydrogen monitors, there are two portable hydrogen analyzing units. In the event that one hydrogen monitor is inoperable, one of the portable units may be used to monitor the hydrogen concentration in the Reactor Building.

The use of the hydrogen purge lines during operations is restricted to the 6-inch valve pairs LRV-70/71 and 72/73 since, these valves are capable of closing during a LOCA or steam line break accident. Therefore, the SITE BOUNDARY dose guideline values of 10 CFR Part 100 would not be exceeded in the event of an accident during containment purging operation. Operation will be limited to 1000 hours during a calendar year. Only one valve pair may be opened at a time. The total time the hydrogen purge valves may be open during MODES 1, 2, 3, and 4 in a calendar year is a function of anticipated need and operating experience. Only safety-related reasons; e.g., containment pressure control or the reduction of airborne radioactivity to facilitate personnel access for surveillance and maintenance activities, should be used to support additional time requests. Only safety-related reasons should be used to justify the opening of these hydrogen purge valves during MODES 1, 2, 3, and 4 in any calendar year regardless of the allowable hours.



## CONTAINMENT SYSTEMS

### BASES

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#### 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

##### 3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the containment spray system ensures that containment depressurization and cooling capability will be available in the event of a LOCA. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses. The leak rate surveillance requirements assure that the leakage rates assumed for the system during the recirculation phase will not be exceeded.

##### 3/4.6.2.2 CONTAINMENT EMERGENCY SUMP pH CONTROL SYSTEM

The OPERABILITY of the containment emergency sump pH control system ensures that sufficient trisodium phosphate dodecahydrate [ $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O} \cdot \frac{1}{2}\text{NaOH}$ ] (TSP-C) is maintained in the three TSP-C storage buckets to increase the pH of the water in the emergency sump to at least 7.0 following a LOCA. The pH is measured at  $77^\circ\text{F} \pm 2^\circ\text{F}$ . The sump water pH must be increased to at least 7.0 to reduce the potential for elemental iodine re-evolution and long-term stress corrosion during the recirculation mode of ECCS operation.

##### 3/4.6.2.3 CONTAINMENT COOLING SYSTEM

The OPERABILITY of the containment cooling system ensures that 1) the containment air temperature will be maintained within limits during normal operation, and 2) adequate heat removal capacity is available when operated in conjunction with the containment spray systems during post-LOCA conditions.