

February 5, 2002

Mr. James Scarola, Vice President
Shearon Harris Nuclear Power Plant
Carolina Power & Light Company
Post Office Box 165, Mail Code: Zone 1
New Hill, North Carolina 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF
AMENDMENT REGARDING TECHNICAL SPECIFICATION CHANGE OF
PRESSURIZER LEVEL (TAC NO. MB1921)

Dear Mr. Scarola:

The Nuclear Regulatory Commission has issued Amendment No. 109 to Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit 1, in response to your request dated May 7, 2001, as supplemented June 29, 2001. The amendment revises Technical Specification (TS) 3/4.4.3 "Pressurizer - Reactor Coolant System" to eliminate the pressurizer water volume in the specification and change the "volume" to "level" in TS 3.4.3, Surveillance Requirement 4.4.3, and the associated Bases.

A copy of the Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's regular bi-weekly *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. 50-400

Enclosures:

1. Amendment No. 109 to NPF-63
2. Safety Evaluation

cc w/enclosures:
See next page

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CAROLINA POWER & LIGHT COMPANY, et al.
DOCKET NO. 50-400
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 109
License No. NPF-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company, (the licensee), dated May 7, 2001, as supplemented June 29, 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. NPF-63 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 109 , are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 5, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 109

FACILITY OPERATING LICENSE NO. NPF-63

DOCKET NO. 50-400

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

3/4 4-10
B 3/4 4-2

Insert Pages

3/4 4-10
B 3/4 4-2

REACTOR COOLANT SYSTEM

3/4.4.3 PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.3 The pressurizer shall be OPERABLE with a water level of less than or equal to 92% of indicated span, and at least two groups of pressurizer heaters each having a capacity of at least 125 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With only one group of pressurizer heaters OPERABLE, restore at least two groups to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With the pressurizer otherwise inoperable, be in at least HOT STANDBY with the Reactor Trip System breakers open within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The pressurizer water level shall be determined to be within its limit at least once per 12 hours.

4.4.3.2 c The capacity of each of the above required groups of pressurizer heaters shall be verified by energizing the heaters and measuring circuit power (kW) at least once per 18 months.

BASES

SAFETY VALVES (Continued)

overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE, an operating RHR loop, connected to the RCS, provides overpressure relief capability and will prevent RCS overpressurization. In addition, the Overpressure Protection System provides a diverse means of protection against RCS overpressurization at low temperatures.

During operation, all pressurizer Code safety valves must be OPERABLE to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss-of-load assuming no reactor trip until the second Reactor Trip System trip setpoint is reached (i.e., no credit is taken for a direct Reactor trip on the loss-of-load) and also assuming no operation of the power-operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Code.

3/4.4.3 PRESSURIZER

The limit on the maximum water level in the pressurizer assures that the parameter is maintained within the normal steady-state envelope of operation assumed in the SAR. The limit is consistent with the initial SAR assumptions. The 12-hour periodic surveillance is sufficient to ensure that the parameter is restored to within its limit following expected transient operation. The maximum water level also ensures that a steam bubble is formed and thus the RCS is not a hydraulically solid system. The requirement that a minimum number of pressurizer heaters be OPERABLE enhances the capability of the plant to control Reactor Coolant System pressure and establish natural circulation.

3/4.4.4 RELIEF VALVES

In MODES 1, 2, and 3 the power-operated relief valves (PORVs) provide an RCS pressure boundary, manual RCS pressure control for mitigation of accidents, and automatic RCS pressure relief to minimize challenges to the safety valves.

Providing an RCS pressure boundary and manual RCS pressure control for mitigation of a steam generator tube rupture (SGTR) are the safety-related functions of the PORVs in MODES 1, 2, and 3. The capability of the PORV to perform its function of providing an RCS pressure boundary requires that the PORV or its associated block valve is closed. The capability of the PORV to perform manual RCS pressure control for mitigation of a SGTR accident is based on manual actuation and does not require the automatic RCS pressure control function. The automatic RCS pressure control function of the PORVs is not a safety-related function in MODES 1, 2, and 3. The automatic pressure control function limits the number of challenges to the safety valves, but the safety valves perform the safety function of RCS overpressure protection. Therefore, the automatic RCS pressure control function of the PORVs does not have to be available for the PORVs to be operable.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 109 TO FACILITY OPERATING LICENSE NO. NPF-63

CAROLINA POWER & LIGHT COMPANY

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

1.0 INTRODUCTION

By letter dated May 7, 2001, as supplemented by letter dated June 29, 2001, Carolina Power & Light Company (the licensee) submitted a request for a change to the Shearon Harris Nuclear Power Plant (HNP) Technical Specifications (TS). The proposed change would revise TS 3/4.4.3 to eliminate the pressurizer water volume value, and change "volume" to "level" in TS 3.4.3, Surveillance Requirement 4.4.3.1, and the associated Bases.

The licensee submitted this license amendment request to amend the HNP TS for the pressurizer to be consistent with the corresponding TS in the Improved Technical Specifications (NUREG-1431, Standard Technical Specifications Westinghouse Plants, WOG ITS 3.4.9, "Pressurizer" and SR 3.4.9.1).

2.0 PROPOSED CHANGES

HNP proposes to revise the TS 3/4.4.3 "Pressurizer - Reactor Coolant System" and Surveillance Requirement (SR) 4.4.3.1 for monitoring pressurizer water volume by eliminating the value specified for the pressurizer water volume and replace the term "volume" with the more appropriate term "level."

Current TS 3/4.4.3 Wording:

"The pressurizer shall be OPERABLE with a water volume of less than or equal to 1227 cubic feet, equivalent to 92% of indicated span, and at least two groups of pressurizer heaters each having a capacity of at least 125 kW."

Proposed Wording for TS 3/4.4.3:

"The pressurizer shall be OPERABLE with a water level of less than or equal to 92% of indicated span, and at least two groups of pressurizer heaters each having a capacity of at least 125 kW."

Current TS SR 4.4.3.1 Wording:

"The pressurizer water volume shall be determined to be within its limit at least once per 12 hours."

Proposed Wording for TS SR 4.4.3.1:

"The pressurizer water level shall be determined to be within its limit at least once per 12 hours."

3.0 EVALUATION

The proposed change is purely administrative in nature since it deletes from the TS a value for the water volume, namely the "water volume of less than or equal to 1227 cubic feet," which cannot be directly monitored, and in its place inserts a limit to the pressurizer level, namely "water level of less than or equal to 92%," which can be monitored and is used as the control parameter. Further, the volume specified in the current TS is redundant information to the level limit in the specification, since the water volume of less than or equal to 1227 cubic feet is "equivalent to 92% of indicated span."

The operation of the reactor coolant system is not affected by the changes. There is no revision to operating setpoints or conditions associated with levels. The changes, which consist of removing the volume (a specific value) and replacing it with a level, do not affect the plant operation and control. There is no change to the maximum setpoint for level or operational limit. There is no change to the margin of safety as described in the Updated Final Safety Analysis Report.

The license amendment request to amend the HNP TS for the pressurizer is consistent with the corresponding TS in the Improved Technical Specifications (ITS), (NUREG-1431, Standard Technical Specifications Westinghouse Plants, WOG ITS 3.4.9, "Pressurizer" and SR 3.4.9.1). The ITS only identify a limit for percent pressurizer level. Thus, the specification is made consistent with the ITS with this change. No change to the HNP TS for the pressurizer level value is being proposed.

Therefore, the staff concludes that the license amendment requested by the licensee to revise 1) TS 3/4.4.3 to eliminate the pressurizer water volume value and change "volume" to "level," 2) TS Surveillance 4.4.3.1 to change "volume" to "level," and 3) the associated Bases is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

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 a surveillance requirement. The NRC staff 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 38760). 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 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: February 5, 2002

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