UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 36 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 December 28, 1990, as supplemented April 10, 1991, September 29, 1992, and February 10, 1993, Carolina Power & Light Company (CP&L or the licensee) submitted a request for changes to the Shearon Harris Nuclear Power Plant, Unit 1 (SHNPP) Technical Specifications (TS). The amendment revises the Action Requirements associated with TS 3.1.2.2, Flow Paths - Operating; TS 3.1.2.4, Charging Pumps - Operating; and TS 3.7.1.1 - Safety Valves. The April 10, 1991, September 29, 1992, and February 10, 1993, letters provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

Currently, these specifications are applicable in plant operating Modes 1, 2, and 3, but require the facility to be placed in Mode 5 (Cold Shutdown) if any of the above equipment is out of service and operability cannot be restored within the time interval allowed by the Limiting Condition for Operation (LCO). The proposed changes would modify the current requirement to specify that the facility be placed in Mode 4 (Hot Shutdown), instead of the Mode 5 (Cold Shutdown), if equipment associated with the TS cannot be restored to operable status within the specified allowed outage time. The proposed changes also establish six hours as the time allowed to reach Mode 4 upon exceeding an allowable outage time.

The staff compared the December 28, 1990, amendment request with the improved Standard Technical Specifications (STS) provided in the enclosure to the June 30, 1992, letter from Thomas Murley, NRC, to the four nuclear supply system vendor owners groups and concluded that the incorporation of selected portions of the STS would be in keeping with the Technical Specification Improvement Program.

In a July 9, 1992, letter to the licensee, the staff suggested that, as a step toward achieving standardization of TS within the industry, TS 3.1.2.2., Flow Paths - Operating, and TS 3.1.2.4, Changing Pumps - Operating, may be relocated in accordance with the STS.

The staff also stated its belief that, in addition to changing TS 3.7.1.1 to be consistent with the STS, the incorporation of TS 3.7.4, Atmosphere Dump Valves (ADVS), from the STS, would also be a significant step in achieving

standardization of TS within the industry. In its letter of September 29, 1992, the licensee advised the staff that it did not intend to adopt the changes identified.

During a meeting on November 12, 1992, and in a letter dated January 26, 1993, the licensee stated that it had no plans to implement the STS at SHNPP.

2.0 EVALUATION

In its letter of January 26, 1993, the licensee stated that the amendment request had utilized the guidance contained in Generic Letter 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operation and Surveillance Requirements." That general guidance is that TS should be constructed such that Action Statements only require shutdown to the first mode in which the TS is not applicable. In STS issued earlier and in many plant TS including those for SHNPP, several TS required shutdown to the second mode beyond the modes of applicability. To evaluate the requested changes to TS 3.1.2.2, Reactivity Control Systems, Flow Paths - Operating, and TS 3.1.2.4, Reactivity Control Systems, Charging Pumps - Operating, the staff reviewed the comparable TS for the shutdown condition (TS 3.1.2.1 Flow Path-Shutdown and TS 3.1.2.3 Charging Pump-Shutdown) which are applicable in Modes 4, 5, and 6. In these modes, the specifications for the shutdown condition (TS 3.1.2.1 and TS 3.1.2.3) only require one flow path and one charging pump to be OPERABLE and furthermore they prohibit plant operation with two pumps in Mode 4 when the temperature of one or more of the RCS cold legs is less than or equal to 325°F. Therefore, the requested changes provide the required shutdown to the first mode in which the TS is not applicable. The staff concludes that the proposed changes eliminate potential misunderstandings and, therefore, are acceptable.

The staff reviewed the proposed change to TS 3.7.1.1, Safety Valves, and in a letter to the licensee dated July 9, 1992, the staff stated its belief that, in addition to changing this TS to be consistent with the STS, the incorporation of TS 3.7.4, Atmospheric Dump Valves (ADVs), from the STS, would also be a significant step in achieving standardization of TS within the industry. However, the licensee in its September 29, 1992, letter stated "... the new TS for Atmospheric Dump Valves is neither related to the changes or the purpose for CP&L's Request for License Amendment nor part of the Westinghouse Standard Technical Specifications upon which the current SHNPP Technical Specifications are based." In a meeting with the licensee on January, 29, 1993, the staff asked whether the main steam safety valves subject to TS 3.7.1.1 provide a safety function in Mode 4 (Hot Shutdown). In a letter dated February 10, 1993, the licensee stated that the main steam safety valves provide no heat removal safety function in Mode 4 and TS 3.6.3, Containment Isolation Valves, requires their operability in Mode 4 as containment isolation valves. In the absence of a heat removal safety function in Mode 4, the staff concludes that operability of the ADVs in Mode 4 is not required.

In addition, the staff reviewed TS 3.4.1.4, Hot Shutdown, and notes that this TS allows plant operation in Mode 4 using two or more steam generators for rejecting heat to the secondary system. With the main steam lines isolated,

cooling would be by the auxiliary feedwater system and the ADVs. Thus, and as reflected in the STS, operation of the auxiliary feedwater system and the ADVs is required in Modes 1, 2 and 3, and in Mode 4 when using the steam generators for heat removal function. The licensee's position during this review is that adoption of the STS for the ADVs in the SHNPP is a backfit issue. The staff concludes that the implementation of the requested change in TS 3.7.1.1, Safety Valves, is acceptable independent of lack of actions relating to TS for the ADVs.

While the staff continues to encourage licensees to voluntarily adopt provisions that are in the STS, the staff concludes that for this particular license action, compliance with the STS is not necessary.

Furthermore, TS 3.1.2.2, TS 3.1.2.4, and TS 3.7.1.1 are applicable in Modes 1, 2, and 3; however, the current Action Requirements call for a reduction to Mode 5 (Cold Shutdown) within the next 30 hours if the associated equipment cannot be restored to operable status within the allowable outage time. The proposed change revised the Action Requirements for TS 3.1.2.2, TS 3.1.2.4, and TS 3.7.1.1 to place the unit in Mode 4 (Hot Shutdown) within the next 6 hours upon exceeding the allowable outage time. The staff finds the proposed change to 6 hours to be consistent with the intent of TS 3.0.1 and its associated TS Bases described in Generic Letter 87-09, and based on the above review, the staff concurs with the licensee's analyses for the above proposed changes, and found the proposed changes to be acceptable.

3.0 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.

4.0 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. 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 (56 FR 6869). 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.

5.0 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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