



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-63
CAROLINA POWER & LIGHT COMPANY, et al.
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-400

1.0 INTRODUCTION

By letter dated December 18, 1989, as supplemented January 22, 1990, the Carolina Power & Light Company (CP&L) submitted a request for changes to the Shearon Harris Nuclear Power Plant, Unit 1, Technical Specifications (TS). The requested changes would revise Table 3.7-6, Item 19, Maximum Temperature for the Tank Area, from 122°F to 104°F and delete Item 17, Maximum Temperature for the Fuel Pool Cooling Pump and Heat Exchanger Area. The January 22, 1990, letter provided clarifying information that did not change the proposed determination of no significant hazards consideration as published in the Federal Register (55 FR 14503) dated April 18, 1990.

2.0 EVALUATION

A discrepancy between Table 3.7-6, Item 19, Maximum Temperature for the Tank Area, in the TS and the Final Safety Analysis Report (FSAR), Figure 3.11B-15, was identified. Currently, the maximum temperature limit for the tank area is listed as 122°F. FSAR Figure 3.11B15, however, shows the normal maximum temperature in this area to be 104°F. Further, a review of the heating, ventilation and air conditioning design calculations indicated the normal maximum temperature in the tank area should be 104°F and the safety related equipment in this area is environmentally qualified for a maximum normal temperature of 104°F. Therefore, the current value in TS Table 3.7-6, Item 19, is in error and changing 122°F to the correct and more conservative value of 104°F is acceptable.

The Bases for TS 3/4.7.12 states that operation of equipment at excessive ambient temperatures may be detrimental to the long-term operability of the equipment. Therefore, the area temperature limitations of TS 3/4.7.12 ensure that when safety related equipment is required to operate that it will not be subjected to temperatures in excess of the equipment's environmental qualification. Further, the Limiting Condition for Operation applicability statement states that the limits imposed by TS 3/4.7.12 are only applicable when the equipment in each area is required to be operable as defined by other system specific TS. However, unlike the other areas,

there is no equipment within the fuel pool cooling pump and heat exchanger area required operable by TS. As a result, the 104°F temperature limitation provided in Item 17 is never implemented.

In addition, the fuel pool cooling system in the fuel pool cooling pump and heat exchanger area is environmentally qualified for a maximum normal temperature of 120°F, but the maximum normal and post-accident peak temperature will be maintained to no more than 104°F by a safety related ventilation system with redundant trains. As a result, the fuel pool cooling system equipment will not be subjected to temperatures in excess of the equipment qualifications or the long-term operability of the system and will not be impaired. Therefore, deletion of the redundant and unimplemented temperature limit for the fuel pool cooling pump and heat exchanger area is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted areas as defined in 10 CFR Part 20. The 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 this amendment involves no significant hazards consideration, and there has been no public comment on such finding. Accordingly, this 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 this amendment.

4.0 CONCLUSION

The Commission made a proposed determination that this amendment involves no significant hazards consideration which was published in the Federal Register (55 FR 14503) on April 18, 1990, and consulted with the State of North Carolina. No public comments or requests for hearing were received, and the State of North Carolina did not have any comments.

The staff 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: September 6, 1990

Principal Contributor: R. Becker



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