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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 93 TO FACILITY OPERATIHG LICENSE NPF-68

AND AMENDMENT NO. 71 TO FACILITY OPERATING LICENSE NPF-81

GEORGIA POWER COMPANY, ET AL.

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-424 AND 50-425

1.0 INTRODUCTION

By letter dated October 16, 1995, as supplemented by letter dated December 22, 1995, Georgia Power Company, et al. (GPC or the licensee) proposed license amendments to change the Technical Specifications (TS) for Vogtle Electric Generating Plant (VEGP or Vogtle), Units 1 and 2. The proposed changes would add a footnote to TS 4.6.1.2.d stating the Type B and C tests scheduled for Unit 1's refueling outage, cycle 6 (1R6) will be conducted in accordance with Option B of 10 CFR Part 50, Appendix J (hereafter referred to as Option B) using the guidance of Regulatory Guide 1.163. This change is requested only for Unit 1 at this time, beginning with refueling outage 1R6, since implementation of Option B for Type A, B, and C testing for both units is being incorporated into the Improved TS that are scheduled to become effective after refueling outage 1R6. The December 22, 1995, letter provided clarifying information that did not change the scope of the October 16, 1995, application and initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

Compliance with Appendix J provides assurance that the primary containment, including those systems and components which penetrate the primary containment, do not exceed the allowable leakage rate values specified in the TS and Bases. The allowable leakage rate is determined so that the leakage assumed in the safety analyses is not exceeded.

On February 4, 1992, the NRC published a notice in the Federal Register (57 FR 4166) discussing a planned initiative to begin eliminating requirements marginal to safety which impose a significant regulatory burden. Title 10 of CFR Part 50, Appendix J, "Primary Containment Leakage Testing for Water-Cooled Power Reactors," was considered for this initiative and the staff undertook a study of possible changes to this regulation. The study examined the previous performance history of domestic containments and examined the effect on risk of a revision to the requirements of Appendix J. The results of this study are reported in NUREG-1493, "Performance-Based Leak-Test Program."

Based on the results of this study, the staff developed a performance-based approach to containment leakage rate testing. On September 12, 1995, the NRC approved issuance of this revision to 10 CFR Part 50, Appendix J, which was subsequently published in the Federal Register on September 26, 1995, and became effective on October 26, 1995. The revision added Option B "Performance-Based Requirements" to Appendix J to allow licensees to voluntarily replace the prescriptive testing requirements of Appendix J with testing requirements based on both overall and individual component leakage rate performance.

Regulatory Guide 1.163, September 1995, "Performance-Based Containment Leak Test Program," was developed as a method acceptable to the NRC staff for implementing Option B. This regulatory guide states that the Nuclear Energy Institute (NEI) document NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J" provides methods acceptable to the NRC staff for complying with Option B with four exceptions.

Option B requires that the regulatory guide or other implementation document used by a licensee to develop a performance-based leakage testing program must be included, by general reference, in the plant TS.

Regulatory Guide 1.163 specifies an extension in Type A test frequency to at least one test in 10 years based upon two consecutive successful tests. Type B tests may be extended up to a maximum of 10 years based upon completion of two consecutive successful tests and Type C tests may be extended up to 5 years based on two consecutive successful tests.

By letter dated October 20, 1995, NEI proposed TS for implementing Option B. After some discussion, the staff and NEI agreed on a set of model TS which were transmitted to NEI in a letter dated November 2, 1995. These TS are to serve as a model for licensees to develop plant-specific TS in preparing amendment requests to implement Option B.

In order for a licensee to determine the performance of each component, an administrative leakage limit is established. The administrative limit is selected to be indicative of the potential onset of component degradation. Although these limits are subject to NRC inspection to assure that they are selected in a reasonable manner, they are not TS requirements. Failure to meet an administrative limit requires the licensee to return to the minimum value of the test interval.

Option B requires that the licensee maintain records to show that the criteria for Type A, B and C tests have been met. In addition, the licensee must maintain comparisons of the performance of the overall containment system and the individual components to show that the test intervals are adequate. These records are subject to NRC inspection.

3.0 EVALUATION

In its application, the licensee requested to add a footnote to its TS on Type B and C surveillance testing. The proposed footnote reads: "Type B and C tests scheduled for refueling outage 1R6 will be conducted in accordance with Option B of 10 CFR 50 Appendix J, using the guidance of Regulatory Guide 1.163, September 1995." Although this wording is not in accordance with the recommendations delineated in the staff's November 2, 1995, letter to NEI, the licensee's proposed TS footnote is only intended to be temporary (it will be superseded when the improved standard TS are implemented after outage 1R6). Furthermore, the licensee's proposed wording is an acceptable alternative to the staff's recommendations.

The licensee requested only to implement the Type B and C tests of Option B for Unit 1's refueling outage 1R6. A schedular exemption and a related license amendment to delay the performance of the Type A test until the 1997 refueling outage were issued on August 29 and November 17, 1995, respectively. As stated in Option B, licensees may adopt either or both Option B requirements (Option B, Section III.A applies to Type A tests; Option B, Section III.B applies to Type B and C tests). Additionally, the implementation of Option B will not change the requirements for testing airlocks or purge supply and exhaust valves with resilient seals. The requirements for testing these items are specified in TS 4.6.1.2.e and f and will be unchanged by the proposed addition of the footnote to TS 4.6.1.2.d. The testing required by the existing TS for airlocks and purge supply and exhaust valves with resilient seals satisfies the requirements of Option B as implemented by Regulatory Guide 1.163, and is therefore acceptable.

Finally, the licensee requested to delete a TS footnote regarding a Type C exemption request that is no longer applicable. The staff agrees that deleting this expired footnote is an appropriate editorial change to the TS.

The licensee's request conforms to the requirements of Option B and is therefore acceptable.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards

consideration, and there has been no public comment on such finding (60 FR 62490 dated December 6, 1995). Accordingly, the amendments meet 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 amendments.

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 amendments 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 2, 1996