



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 25 TO FACILITY OPERATING LICENSE NPF-68
AND AMENDMENT NO. 6 TO FACILITY OPERATING LICENSE NPF-81
GEORGIA POWER COMPANY, ET AL.
DOCKETS NOS. 50-424 AND 50-425
VOGTLÉ ELECTRIC GENERATING PLANT, UNITS 1 AND 2

1.0 INTRODUCTION

By letter dated September 26, 1989, Georgia Power Company, et al., (GPC or the licensee) requested a change to the Technical Specifications (TSs) for Vogtle Electric Generating Plant (VEGP), Units 1 and 2. The proposed change would revise TS 3.1.1.3, "Moderator Temperature Coefficient," to allow operation of Unit 2 with a slightly positive moderator temperature coefficient (MTC) below 100% power. The current TSs require a negative value for Unit 2 MTC at all power levels.

2.0 EVALUATION

The licensee has provided the following information in support of their request:

The proposed change for Unit 2 is identical to that previously approved for Unit 1 on October 4, 1988. The Westinghouse licensing report that was submitted with the Unit 1 change was applicable for both Units 1 and 2 reload core designs. The Westinghouse report was accepted by the NRC as the basis for the current Unit 1 MTC TS requirement for reload cores, and also forms the basis for the Unit 2 change for reload cores.

TS 3.1.1.3 ensures that the value of the MTC remains within the limits assumed in the Final Safety Analysis Report (FSAR) transient and accident analyses. In keeping with this basis, Westinghouse performed the necessary transient and accident analyses with the proposed MTC values to ensure that the results remained within all design and safety criteria. The Westinghouse analysis is described in the report entitled "Positive Moderator Temperature Coefficient and RWST/Accumulator Boron Concentration Increase Licensing Report for Vogtle Electric Generating Plant Units 1 and 2." This report was submitted to NRC as Enclosure 1 to GPC letter SL-4682, dated May 19, 1988. The information contained in the report was also incorporated into the FSAR as Section 15B.

Operation with a slightly positive MTC does not exceed any safety-related design criteria and results in significant benefits. These benefits include (1) a reduction in the number of burnable poison (BP) rods required to maintain a negative MTC value at all power levels, (2) reduced BP handling requirements,

(3) fewer problems associated with the storage and disposal of spent BPs, (4) a reduced probability of enforcing administrative control rod withdrawal limits at low power, (5) higher energy 18-month operating cycles, (6) increased fuel discharge burnups, and (7) decreased fuel costs.

Two points should be noted regarding the applicability of the Westinghouse report to Unit 2. First, the increases in refueling water storage tank boron concentration, accumulator boron concentration, and shutdown margin requirements discussed in the report have already been implemented on Unit 2. These changes were incorporated into the Unit 1 and Unit 2 TSs prior to their issuance with the Unit 2 Operating License. Second, the "revised" Vogtle steam generator tube rupture analysis referenced in the report has been approved by NRC. This approval was documented in the NRC letter to GPC dated November 15, 1988. The revised analysis, which includes the effect of a positive MTC, therefore represents the current Unit 2 licensing basis.

The NRC staff has reviewed the licensee's request. Since the request is identical to that approved by the NRC staff for Unit 1, the NRC staff finds that operation of Unit 2 with a slightly positive MTC below 100% power is acceptable. Therefore, the NRC staff finds the requested amendment to be acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes in surveillance requirements. The 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. 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.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register on November 15, 1989 (54 FR 47603), and consulted with the State of Georgia. No public comments were received, and the State of Georgia 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: January 4, 1990