



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20565-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 73 TO FACILITY OPERATING LICENSE NPF-68  
AND AMENDMENT NO. 52 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 November 19, 1993, Georgia Power Company, et al. (the licensee) proposed license amendments to change the Technical Specifications (TS) for Vogtle Electric Generating Plant (Vogtle), Units 1 and 2. The proposed changes would add a footnote to TS Table 3.3-2, Engineered Safety Features Actuation System Instrumentation, modifying the Mode for which Functional Unit 6.e, "Trip of All Main Feedwater Pumps, Start Motor-Driven Pumps," is required to be operable. The proposed footnote states "Not required in MODE 2 when Auxiliary Feedwater is operating to supply the steam generators."

During a normal plant startup, entry is made into Mode 2 while feeding the steam generators using the auxiliary feedwater (AFW) system. The main feedwater (MFW) pumps are then individually trip tested and started in Mode 2 when sufficient steam has been generated to operate the feedwater pump turbines. Both MFW pumps must be reset when performing a MFW pump trip test to prevent an AFW actuation. The current wording of the TSs requires that the plant enter a limiting condition for operation (LCO) when both MFW pumps are reset.

The requested change would allow operation in Mode 2 with a non-operating feedwater pump in the reset condition, provided that the AFW is providing water to the steam generators. If the non-operating feedwater turbine trip is reset, the AFW start signal will not be received. Therefore, the engineered safety features actuation system (ESFAS) instrumentation of Functional Unit 6.e in TS Table 3.3-2 is considered to be inoperable if a feedwater pump turbine is reset from the tripped condition but not operating.

These conditions could also result in an unnecessary AFW actuation signal if an MFW pump turbine trips during the time when AFW is supplying the steam generators. The proposed change to the TSs would allow MFW pump testing without entering an LCO and would prevent unnecessary AFW actuation signals when AFW is already supplying feedwater to the steam generators.

## 2.0 EVALUATION

The current wording of the TS requires this instrumentation to be operable prior to entry into Mode 2. During normal plant startups, the steam generators (SG) are fed by the AFW system until after entry into Mode 2. The first turbine driven MFW pump is then started, tested, and aligned to supply the SGs prior to stopping the AFW pumps. Then the second MFW pump is started. In order to comply with the current TS requirements during the time when the AFW is supplying the SGs and one MFW pump is being started, it is necessary that the non-operating MFW pump turbine be in the tripped condition. Under such circumstances, a trip of the operating MFW turbine will initiate an AFW start signal. This AFW start signal would be unnecessary because the AFW would already be in operation. In this case, operator action may be required to prevent excess flow to the SGs since the AFW flow control valves will open on an AFW start signal.

The proposed TS change would avoid such conditions by allowing the non-operating MFW turbine to be placed in the reset condition, provided that the SGs are being supplied by the AFW pumps. Both motor driven AFW pumps are operating when AFW is in operation in Mode 2. The wording of the change is such that the requirement for ESFAS instrumentation operability is unaffected when an MFW pump is providing feedwater to the SGs. The purpose of the ESFAS instrumentation is to start the AFW system in the event of a loss of main feedwater to the SGs due to tripping of MFW pumps. Since the effect of the proposed change to the TS is to allow the instrumentation to be inoperable only if the AFW is already supplying the SGs, the change will not affect the ability of the ESFAS instrumentation to perform its safety function.

Based on its evaluation as described above, the staff concludes that the proposed TS change is consistent with the accident analyses in the Final Safety Analysis Report and with related Vogtle TS for the ESFAS. The staff, therefore, concludes that the proposed change is acceptable.

## 3.0 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.

## 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements 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 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 (58 FR 67847). 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.

#### 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

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