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Georgia Power

The Southern Electric System

C. K. McCoy
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Vogtle Project

July 31, 1992

ELV-03723

Docket Nos. 50-424
50-425

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
ADDITION OF FEEDWATER ISOLATION SYSTEMS

In accordance with the provisions of 10 CFR 50.90 and 10 CFR 50.59, Georgia Power Company (GPC) hereby proposes to amend the Vogtle Electric Generating Plant (VEGP) Unit 1 and Unit 2 Technical Specifications, Appendix A to Operating Licenses NPF-68 and NPF-81.

This amendment modifies the Technical Specifications by adding new specification 3.7.1.6, entitled Main Feedwater Isolation Systems. This specification requires that the main feedwater isolation valves be operable. This addition to the Technical Specifications is not a result of any change to the design or analyses. The inclusion of this specification allows the Technical Specifications to more accurately address the components that form the primary success path for mitigation of design basis events. Georgia Power Company requests approval of this Technical Specification change by June 1, 1993.

The proposed changes and bases for the changes are described in enclosure 1 to this letter. Enclosure 2 provides an evaluation pursuant to 10 CFR 50.92 showing that the proposed changes do not involve significant hazards considerations. Instructions for incorporation of the proposed changes into the Technical Specifications and a copy of the proposed changes are provided in enclosure 3.

In accordance with 10 CFR 50.91, the designated state official will be sent a copy of this letter and all enclosures.

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Mr. C. K. McCoy states that he is a vice president of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company and that, to the best of his knowledge and belief, the facts set forth in this letter and enclosures are true.

GEORGIA POWER COMPANY

By: *C. K. McCoy*
C. K. McCoy

Sworn to and subscribed before me this 31st day of July, 1992.

Mary A. Bentley
Notary Public

CKM/HWM/gmb

Enclosures:

1. Basis for Proposed Change
2. 10 CFR 50.92 Evaluation
3. Instructions for Incorporation and Revised Pages

c(w): Georgia Power Company
Mr. W. B. Shipman
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebnetter, Regional Administrator
Mr. D. S. Hood, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

State of Georgia
Mr. J. D. Tanner, Commissioner, Dept. of Natural Resources

ENCLOSURE 1
VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
ADDITION OF FEEDWATER ISOLATION SYSTEMS

BASIS FOR PROPOSED CHANGE

Proposed Change

The proposed change adds new specification 3/4.7.1.6, entitled Main Feedwater Isolation Systems, and associated bases. The specification requires that the main feedwater isolation and regulating valves and their respective bypass valves be operable or isolated when the reactor is in Modes 1 or 2. Appropriate action statements and surveillance requirements are included. The exact text of the new specification is included with enclosure 3.

Basis

A main feedwater isolation valve (MFIV) and an associated main feedwater isolation bypass valve (BFIV) is provided for each of the feedwater lines to the four steam generators. Each of these lines also contains a main feedwater regulating valve (MFRV) and its associated main feedwater regulating bypass valve (BFRV). The feedwater line to each steam generator can be isolated by the closure of either a MFIV or MFRV and its associated bypass valve. These valves provide redundant isolation for each main feedwater line. All of these valves receive automatic isolation signals from both trains of engineered safety features actuation system instrumentation as listed in table 3.3-2 of the Technical Specifications.

The safety-related function of the MFIVs and the MFRVs and their associated bypass valves is to provide isolation for main feedwater flow to the secondary side of the steam generators. The evaluations of a feedwater malfunction, main steam line break, feedwater line break, small break loss of coolant accident and steam generator tube rupture take credit for isolating the feedwater lines.

The design basis for the isolation of the feedwater lines was established by the analysis of the main steam line break. Failure to isolate the feedwater lines would result in additional feedwater to the steam generators that could result in additional cooling and additional mass and energy release. Since these valves are part of the primary success path for mitigation of a main steam line break, Georgia Power Company has determined that it is appropriate to include them in the Technical Specifications.

ENCLOSURE 1 (CONTINUED)

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
ADDITION OF FEEDWATER ISOLATION SYSTEMS

BASIS FOR PROPOSED CHANGE

The addition of this Technical Specification does not require design changes to the plant or any changes to the safety analyses that are currently in place.

The MFIVs and MFRVs (and their associated bypass valves) provide a redundant feedwater isolation capability. The allowable times for operating with one of the isolation valve combinations inoperable (and open) are consistent with the allowable operating times for operation with inoperable trains of redundant systems.

The surveillance requirements are met by testing in accordance with Section XI of the ASME Code. The valve operation time of 5 seconds is consistent with the response time of 7 seconds recorded in table 16.3-2 of the Final Safety Analysis Report (FSAR), since the response time in this table includes an allowance of 2 seconds for signal delay.

ENCLOSURE 2

VOGTLE ELECTRIC GENERATING PLANT REQUEST TO REVISE TECHNICAL SPECIFICATIONS ADDITION OF FEEDWATER ISOLATION SYSTEMS

10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power Company has evaluated the proposed revision to the Technical Specifications and has determined that operation of the facility in accordance with the proposed amendment would not involve any significant hazards considerations.

Background

Automatic isolation of the feedwater system has always been a part of the VEGP design. The addition of a Technical Specification for the main feedwater isolation system will provide assurance that this system will be maintained operable in a manner consistent with its intended function.

Analysis

Automatic isolation of the main feedwater system is provided when required to mitigate the consequences of a feedwater malfunction, main steam line break, feedwater line break, small break loss of coolant accident, or steam generator tube rupture. The electro-hydraulic fail-closed main feedwater isolation valves and fail-closed air-operated bypass isolation valves close within 5 seconds on receipt of an engineered safety features (ESF) actuation signal. Redundant safety grade feedwater line isolation is provided by the air-operated fail-closed main feedwater regulating and bypass regulating valves, which also close within 5 seconds on receipt of an ESF actuation signal. Each valve receives a closure signal from both trains of the ESF actuation system. These closure times are consistent with the values used in the transient and accident analyses described in chapter 15 of the FSAR.

The allowable operating time of 72 hours for operation with an inoperable isolation system is acceptable because the redundant isolation system is operable. This time is consistent with the allowable operating time provided in Technical Specification 3.7.1.5 for an inoperable main steam line isolation system. The proposed Technical Specification allows continued operation with an inoperable isolation valve, provided that the valve is closed. This is acceptable because the safety function of the isolation valve is performed when it is closed.

ENCLOSURE 2 (CONTINUED)

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
ADDITION OF FEEDWATER ISOLATION SYSTEMS

10 CFR 50.92 EVALUATION

The specification allows the isolation system to be considered operable even if a valve in the system is inoperable, provided the valve is closed. It is understood that in Mode 1 a closed main feedwater isolation or main feedwater regulating valve would not allow full power operation because VEGP is not licensed for operation with one loop isolated.

Conclusion

Based on the above consideration, GPC has concluded the following concerning 10 CFR 50.92.

1. The proposed addition to the Technical Specifications does not involve a significant increase in the probability or consequences of an accident previously evaluated because it adds requirements to maintain the feedwater isolation systems in a state that is consistent with the accidents previously analyzed.
2. The proposed addition to the Technical Specifications does not create the possibility of a new or different kind of accident from any accident previously evaluated because it requires the feedwater isolation system to be maintained operable in a manner that is consistent with the current accident analyses and does not introduce any new or different operating requirements for the feedwater isolation systems.
3. The proposed addition to the Technical Specifications does not involve a significant reduction in a margin of safety because it will require the feedwater isolation system to perform in accordance with the assumptions used in the safety analyses. Therefore, operation in accordance with the proposed specification will not affect any of the acceptance limits or analyses used to demonstrate operation within the acceptance limits.

Based upon the preceding information, it has been determined that the proposed Technical Specifications addition does not involve a significant hazards consideration as defined by 10 CFR 50.92(c).