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the southern electric system

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February 4, 1988

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

PLANT VOGTLE - UNIT 1
NRC DOCKET 50-424
OPERATING LICENSE NPF-68
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.7.1.2.1

Gentlemen:

In accordance with 10 CFR 50.90 and 10 CFR 50.59, Georgia Power Company (GPC) hereby proposes to amend the Vogtle Electric Generating Plant Unit 1 Technical Specifications, Appendix A to Operating License NPF-68. The proposed amendment revises the flow requirement for surveillance testing of the motor-driven auxiliary feedwater pumps.

Enclosure 1 provides a detailed description of the proposed change and the basis for the change.

Enclosure 2 details the basis for our determination that the proposed change does not involve significant hazards considerations.

Enclosure 3 provides instructions for incorporation of the proposed change into the Technical Specifications. The proposed revised Technical Specification page follows Enclosure 3.

Payment of the required \$150.00 filing fee is enclosed.

In accordance with 10 CFR 50.91, Mr. J. L. Ledbetter of the Environmental Protection Division of the Georgia Department of Natural Resources will be sent a copy of this letter and all applicable enclosures.

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Mr. James P. O'Reilly states that he is Senior 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: James P. O'Reilly
James P. O'Reilly

Sworn to and subscribed before me this 4th day of February 1988.

Laurie D. Mercer
Notary Public

Notary Public, Clayton County, Ga.
My Commission Expires Oct. 18, 1991

Enclosures:

1. Basis for Proposed Change
2. 10 CFR 50.92 Evaluation
3. Instructions for Incorporation
4. Check for Filing Fee

c: (see next page)

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c: Georgia Power Company
Mr. P. D. Rice
Mr. G. Bockhold, Jr.
Mr. J. E. Swartzwelder
Mr. C. W. Hayes
GO-NORMS

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Mr. R. A. Thomas
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Mr. A. H. Domby, Attorney-at-Law

U. S. Nuclear Regulatory Commission
Dr. J. N. Grace, Regional Administrator
Mr. J. B. Hopkins, Licensing Project Manager, NRR (2 copies)
Mr. J. F. Rogge, Senior Resident Inspector-Operations, Vogtle

State of Georgia
Mr. J. L. Ledbetter, Commissioner - Department of Natural Resources

ENCLOSURE 1

PLANT VOGTLE - UNIT 1
NRC DOCKET 50-424
OPERATING LICENSE NPF-68
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.7.1.2.1
BASIS FOR PROPOSED CHANGE

PROPOSED CHANGE

Technical Specification 4.7.1.2.1 requires verification at least once every 31 days that each motor driven auxiliary feedwater pump develops a discharge pressure of greater than or equal to 1605 psig at a flow of greater than or equal to 175 gpm. The proposed change revises the flow criterion to "greater than or equal to 150 gpm."

BASIS FOR PROPOSED CHANGE

A minimum flow of 175 gpm was recommended by the pump manufacturer for protection of the motor-driven auxiliary feedwater pumps. The recirculation lines used for pump surveillance testing were designed for 175 gpm. Surveillance tests have demonstrated adequate discharge pressure, but the "A" pump met the 175 gpm flow by a narrow margin. GPC believes that the pump performance is adequate, and that the surveillance results are a consequence of design tolerances in the recirculation line. The pump manufacturer has informed GPC that a minimum flow of 150 gpm is equally acceptable for pump protection. GPC is, therefore, proposing a revision of the surveillance flow requirement to a value of 150 gpm.

ENCLOSURE 2

PLANT VOGTLE - UNIT 1
NRC DOCKET 50-424
OPERATING LICENSE NPF-68
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.7.1.2.1
10 CFR 50.92 EVALUATION

In accordance with 10 CFR 50.92, GPC has evaluated the attached proposed amendment to the Technical Specifications and has determined that operation of the facility in accordance with the proposed amendment would not involve significant hazards considerations. The basis for this determination is as follows:

PROPOSED CHANGE

Revise the acceptance criterion of Technical Specification 4.7.1.2.1 from "a discharge pressure of greater than or equal to 1605 psig at a flow of greater than or equal to 175 gpm" to "a discharge pressure of greater than or equal to 1605 psig at a flow of greater than or equal to 150 gpm."

BACKGROUND

Auxiliary feedwater pumps are provided with recirculation lines to provide a flow path during periods of low pump flow such as pump startup and to enable surveillance testing of the pumps during plant operation. The recirculation lines are sized to ensure sufficient flow for protection of the pumps. The motor-driven AFW pump recirculation lines have orifices supplied by the pump manufacturer which are designed for 175 gpm flow at a discharge pressure of 1605 psig. The pump manufacturer specified 175 gpm as an acceptable minimum flow for extended pump operation. A discharge pressure of 1605 psig at a flow of 175 gpm was incorporated into Technical Specification 4.7.1.2.1 as the acceptance criterion for surveillance testing of the pumps during plant operation.

Surveillance tests performed to date have resulted in adequate discharge pressure but little margin above the 175 gpm flow requirement for the "A" motor-driven pump. GPC believes that these results are not indicative of marginal pump performance. Pre-operational testing of the AFW system demonstrated that the two motor-driven pumps had equivalent performance when injecting the required flow to the steam generators. Surveillance test results have been relatively constant and have not exhibited any downward trend. Use of the motor-driven AFW pumps during plant startups and shutdowns has not revealed any evidence of pump degradation. GPC believes that the marginal surveillance results are the consequence of an inappropriate flow requirement.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 4.7.1.2.1
10 CFR 50.92 EVALUATION

The 175 gpm minimum flow does not adequately account for uncertainties in orifice and recirculation piping design. Since the manufacturer recommended 175 gpm for pump protection, they were requested to evaluate the acceptability of lower flow rates. The manufacturer has informed GPC that 150 gpm is an equally acceptable minimum flow for extended operation, and that flow as low as 125 gpm could be tolerated for short periods. GPC is therefore proposing to revise the surveillance flow requirement to 150 gpm. Because pump head is relatively constant in the 150-175 gpm flow region, 1605 psig is still the appropriate discharge pressure. GPC believes that 1605 psig at 150 gpm is an appropriate surveillance acceptance criterion because it is adequate for pump protection and it verifies that the pump is operating on its head vs. flow curve. This acceptance criterion provides an equivalent indication of pump operability compared with the present 1605 psig at 175 gpm.

ANALYSIS

GPC has reviewed the proposed change to the flow requirement for the motor driven auxiliary feedwater pump surveillance testing and has determined that the change does not involve significant hazards considerations. In support of this conclusion the following analysis is provided:

1. The proposed change does not significantly increase the probability or consequences of an accident previously evaluated. The change does not involve any modification to the auxiliary feedwater pumps and has no effect on operation of the system. Since the auxiliary feedwater system will respond to a manual or automatic actuation and operate in the same manner as before the change, the probability and consequences of previously analyzed accidents would not be affected.
2. The proposed change does not create the possibility of a new or different kind of accident than any accident previously evaluated. The change does not involve any physical alteration to the auxiliary feedwater system or to any other plant system or structure. The change does not affect the operation of any plant system. The change therefore does not create the possibility of a new failure mode or malfunction and a new or different kind of accident could not result.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATION 4.7.1.2.1
10 CFR 50.92 EVALUATION

3. The proposed change does not significantly reduce a margin of safety. The proposed change assures adequate flow for pump protection during surveillance testing. The proposed surveillance acceptance criterion is equivalent to the existing criterion in terms of demonstrating pump operability, since both criteria show operation on the pump's head vs. flow curve. The VEGP In-Service Testing program requires that corrective action be taken if quarterly test data exhibit a significant adverse trend. Margins of safety are therefore not reduced.

CONCLUSION

Based on the preceding analysis, GPC has determined that the proposed change to the Technical Specifications will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. GPC therefore concludes that the proposed change meets the requirements of 10 CFR 50.92(c) and does not involve significant hazards considerations.