

C. K. McCoy  
Vice President, Nuclear  
Vogtle Project



September 17, 1992

Docket Nos. 50-424  
50-425

ELV-03832

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

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT  
REQUEST TO REVISE TECHNICAL SPECIFICATIONS  
FREQUENCY OF ECCS VENTING

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 revises surveillance requirement 4.5.2.b by changing the frequency for verifying that the emergency core cooling system (ECCS) piping is full of water from once per 31 days to once per 6 months. This request is consistent with the results of the monthly surveillances that have been performed since the Technical Specification went into effect and which have not indicated any accumulation of air in the ECCS piping. Georgia Power Company requests that this revision to the Technical Specifications be approved by February 26, 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 markup of the affected pages are provided in enclosure 3.

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

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: CKM'G  
C. K. McCoy

Sworn to and subscribed before me this 17<sup>th</sup> day of September 1992.

Mary N. Bentley  
Notary Public

NOTARY PUBLIC STATE OF GEORGIA  
MY COMMISSION EXPIRES MAY 6, 1995

CKM/HWM/gmb

Enclosures:

1. Basis for Proposed Change
2. 10 CFR 50.92 Evaluation
3. Instruction 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  
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BASIS FOR PROPOSED CHANGE

Proposed Change

The proposed change will revise the frequency of venting the emergency core cooling system (ECCS) piping from once per 31 days to once per 6 months by changing Specification 4.5.2.b to read as follows:

"b. verifying the following:

- 1). At least once per six months that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points, and
- 2). At least once per 31 days that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position."

The requirement for verification that valves are in their correct position is unaffected.

Basis

The monthly venting of the ECCS piping required by Specification 4.5.2.b has been performed in excess of 100 times between the two VEGP units. Nineteen Unit 1 points and seventeen Unit 2 points are vented per this surveillance. A review of records from previous surveillances indicates that the ECCS piping has always been verified to be full of water. As a means of confirming these historical results, a survey of the personnel who have performed the surveillance was conducted. No personnel could recall observing any accumulation of air in performing this surveillance. Procedural requirements exist to ensure the ECCS piping is filled and vented following maintenance on the associated systems. Additionally, the VEGP design is such that there are no high points in the ECCS piping that are above the water level of the aligned water source. This ensures that the ECCS piping will remain full after it is filled and vented. Therefore, based on the design of the piping and the historical results of the surveillance, GPC has concluded that the monthly venting of the ECCS piping is excessive.

ENCLOSURE 1 (CONTINUED)

VOCTLE ELECTRIC GENERATING PLANT  
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BASIS FOR PROPOSED CHANGE

In addition, the performance of the monthly venting of the ECCS piping is a labor intensive undertaking and results in unnecessary personnel exposure to radiation. (Approximately 0.5 rem of exposure was attributed to this surveillance during 1991.)

Currently, 13 of the combined 36 vent points are located in areas designated as high radiation areas ( $\geq 100$  mrem per hour). The other vent points are located in areas designated as radiation areas ( $\geq 2.5$  mrem per hour). Several of the same areas are also currently designated as contaminated areas. Due to radiological concerns associated with the venting of the involved systems, escort by a Health Physics technician is required for the venting of all points. The actual venting is performed by Operations Department personnel. However, Maintenance support is required for the removal and reinstallation of blind flanges for five Unit 1 points and four Unit 2 points. Additionally, the reinstallation of one of the blind flanges requires the verification of a Quality Control inspector. Therefore, the performance of the surveillance requires extensive personnel effort within radiological control areas and is contrary to ALARA principles.

For the above reasons, Georgia Power Company is requesting that the frequency of this verification be extended to once per 6 months.

ENCLOSURE 2  
VOGTLE ELECTRIC GENERATING PLANT  
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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

Technical Specification 4.5.2.b requires verification that the emergency core cooling system piping is full of water once per 31 days by venting accessible pump casings and discharge piping high points. This surveillance has been conducted routinely since the Technical Specification became effective in 1987. Georgia Power Company experience in conducting this surveillance has found insignificant or no quantities of air in the ECCS system. The design of the system is such that there are no high points that are above the water level of the water source to which the system is aligned. Therefore, the system will remain full by following the venting procedures that are conducted prior to returning the ECCS system to service after an outage. Under such circumstances, a monthly verification of full piping is unnecessary, and a longer surveillance frequency is justified.

Analysis

Prior to returning an inoperable ECCS system to service following maintenance or repairs that could have allowed air to enter the system, plant procedures require that the system be filled and vented. This process involves opening various vent valves on system high points until water is observed.

The results of the monthly surveillances conducted in accordance with Specification 4.5.2.b have been reviewed. This included a survey of the plant personnel who performed the verifications. This survey determined that all of the routine surveillances have indicated no or insignificant amounts of air in the ECCS piping.

The safety injection (SI) pumps and residual heat removal (RHR) pumps are normally aligned to the refueling water storage tank (RWST). The bottom of the RWST is at an elevation of about 220 ft. This is well above the highest of the ECCS high point vents for the RHR and SI systems, which are at an elevation of about 216 ft. The centrifugal charging pumps are normally aligned to the volume control tank, the bottom of which is at an elevation

ENCLOSURE 2 (CONTINUED)

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10 CFR 50.92 EVALUATION

of about 196 ft. The high point vents used for the centrifugal charging pumps are at an elevation of approximately 153 ft. Therefore, the configuration of the system is such that piping will remain filled.

Plant procedures require that these systems be filled and vented prior to returning them to operable status following any activity which could have allowed air to enter the system. Following this initial filling procedure, the positive head of the volume control tank and the RWST will assure that the lines remain filled. Therefore, subsequent opening of the vents will continue to confirm the presence of water. Experience from previous surveillances confirms that no significant accumulation of noncombustible gases has occurred.

Conclusion

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

1. The proposed revision to the Technical Specifications does not involve a significant increase in the probability or consequences of an accident previously evaluated because the designs of the systems assure that the ECCS piping remains full. Therefore, extending the surveillance frequency will not significantly affect the probability that the ECCS system will perform as designed.
2. The proposed revision to the Technical Specifications does not create the possibility of a new or different kind of accident from any accident previously evaluated because it does not involve any physical modification to the plant or any changes in the ECCS system's ability to perform as designed. The frequency of verifying that the ECCS piping is filled is unrelated to the types of accidents or events that could be expected to occur.
3. The proposed revision to the Technical Specifications does not involve a significant reduction in a margin of safety because the design of the system is such that the lines are maintained full by the elevation of the RWST or volume control tank (VCT), and the results of previous surveillances have indicated that air will not accumulate in these lines between surveillances.

ENCLOSURE 2 (CONTINUED)

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10 CFR 50.92 EVALUATION

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