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the southern electric system

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Nuclear Operations

ELV-01713
0402

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 SPECIFICATION 4.8.1.1.2h(6)(c)

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) Units 1 and 2 Technical Specifications, Appendix A to Operating Licenses NPF-68 and NPF-81.

Technical Specification (TS) Surveillance Requirement 4.8.1.1.2h(6)(c) requires verification that all automatic diesel generator trips, except engine overspeed, low lube oil pressure, high jacket water temperature and generator differential are automatically bypassed upon loss of voltage on the emergency bus concurrent with a Safety Injection Actuation Signal. The proposed amendment would allow the high jacket water temperature trip to be bypassed to minimize the potential for spurious diesel generator trips in the emergency start mode.

The proposed change and its basis are described in Enclosure 1. Our evaluation pursuant to to 10 CFR 50.92 showing that the proposed change does not involve significant hazards considerations is provided as Enclosure 2. Instructions for incorporation of the proposed change into the Technical Specifications and a mark-up of the affected page is provided as Enclosure 3.

GPC requests that this proposed amendment be processed as an emergency Technical Specification change. The modification which allows the jacket water high temperature trip to be bypassed has become necessary to alleviate a continuing problem of spurious trips caused by the jacket water temperature switches. GPC believes that this modification needs to be made as soon as possible to increase diesel generator reliability.

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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. W. G. Hairston, III states that he is a 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: W. G. Hairston III
W. G. Hairston, III

Sworn to and subscribed before me this 25 day of May, 1990.

Teresa Marino
Notary Public

WGH,III/NJS/gm

MY COMMISSION EXPIRES JAN. 2, 1994

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. C. K. McCoy
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Mr. R. M. Odom
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U. S. Nuclear Regulatory Commission
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Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. R. F. Aiello, Senior Resident Inspector, Vogtle

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

ENCLOSURE 1

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.8.1.1.2h(6)(c)

BASIS FOR PROPOSED CHANGE

Proposed Change

This proposed change will add a footnote to Specification 4.8.1.1.2h(6)(c) that states "The high jacket water temperature trip may be bypassed." This change will allow the diesel generators to be operable with the high jacket water temperature trip bypassed.

Basis

Regulatory Guide 1.9 requires that all diesel generator protective trips except engine overspeed and generator differential be either automatically bypassed under accident conditions or implemented with two or more independent measurements for each trip parameter. Sufficient operator reaction time should be available for bypassed trips. The Vogtle Electric Generating Plant diesel generators are designed with two additional trips that are not automatically bypassed. These are the loss of lube oil pressure and high jacket water temperature trips. Plant operating experience has shown that the high jacket water temperature trip system is a source of unnecessary diesel generator trips. Therefore, GPC is preparing a modification that will allow this trip function to be bypassed. In conjunction with this modification it is necessary to modify the Technical Specification to indicate that this trip function may be bypassed. The effects of this change have been evaluated to determine whether or not it involves any significant hazards consideration. This evaluation is presented in Enclosure 2.

ENCLOSURE 2

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.8.1.1.2h(6)(c)

10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power Company (GPC) has evaluated the attached proposed amendment and has determined that operation of the facility in accordance with the proposed amendment would not involve significant hazards considerations.

BACKGROUND

This proposed change is to allow the emergency diesel generators to be started by an emergency signal with the high jacket water temperature trip bypassed. This is in addition to the other trips which are already bypassed by an emergency start signal (Safety Injection (SI), Loss of offsite power (LOSP), or Emergency Manual start). A modification will be made to add isolation valves in the instrument tubing between the DG high jacket water temperature elements and the local DG control panel. The valves will normally be closed so that high jacket water temperature sensors will not provide input to the engine trip logic, but may be opened to allow additional engine protection when performing a non-emergency manual start or surveillance of the diesels. In order to close these valves the Technical Specifications are being revised to indicate that the jacket water temperature trip may be bypassed.

Position 7 of Reg. Guide 1.9, Revision 2, states that all diesel generator protective trips should be either bypassed when the diesel generator is required for a design-basis event or implemented with two or more independent measurements with coincident logic provisions. All protective trips are allowed during periodic testing. The allowed exceptions to the above requirements for bypassing are diesel engine overspeed and generator differential current. Currently, all the protective trips except engine overspeed, generator differential, low lube oil pressure, and high jacket water temperature are bypassed during an emergency start. The low lube oil pressure and high jacket water temperature trips are implemented by three independent measurements for each trip parameter. Actuation of these trips is initiated by two-out-of-three coincident logic. These provisions satisfy the requirements of Position 7 of Reg. Guide 1.9 and, as documented in section 8.3.1 of the SER, were found by the NRC to be acceptable.

However, to increase the reliability of the diesel generators, it has now been determined that the trip on high jacket water temperature should also be bypassed during an emergency start. Reg. Guide 1.9, Rev 2 allows this trip to be bypassed under accident conditions provided the operator has sufficient time to react appropriately to an abnormal diesel-generator condition. In addition, the bypass circuitry should satisfy the requirements of IEEE 279-1971 at the DG system level and should include the capability for (1) testing the status and operability of the bypass circuits, (2) alarming abnormal values of all bypass parameters in the control room, and (3) manually resetting of the trip bypass function. (Capability for automatic reset is not acceptable.)

ENCLOSURE 2 (CONTINUED)

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.8.1.1.2h(6)(c)

10 CFR 50.92 EVALUATION

BACKGROUND (Continued)

This proposed change meets the intent of Reg. Guide 1.9. Abnormal values of high jacket water temperature will continue to be alarmed locally and in the control room. Low jacket water pressure is also alarmed. From the time of the high jacket water temperature alarm, the operator will have sufficient time to react appropriately to abnormal diesel generator condition. If the valves are closed, the trips will be bypassed. Operating procedures will assure the correct position of the valves.

ANALYSIS

In order to accomodate the current design, the Technical Specifications require verification that all automatic diesel generator trips are automatically bypassed upon loss of voltage on the emergency bus concurrent with a Safety Injection Actuation signal, except for engine overspeed, generator differential, low lube oil pressure and high jacket water temperature. The proposed Technical Specification change will note that the jacket water temperature trip may be bypassed. The high jacket water temperature trip is designed to protect the diesel generator from a loss of engine cooling. For such an event, the safety function would be provided by the diesel for the other train. During an accident, the advantage of the automatic trip is small relative to the increased reliability achieved by reducing the possibility of a spurious trip.

RESULTS

This change will not increase the probability of an accident previously evaluated because it does not affect any of the design basis events that have been previously evaluated in the FSAR. The analyses of accident consequences do not take credit for the ability to restart a diesel following a diesel generator trip. Therefore, this change will not affect the previously evaluated consequences.

ENCLOSURE 2 (CONTINUED)

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATION 4.8.1.1.2h(6)(c)

10 CFR 50.92 EVALUATION

RESULTS (Continued)

The revision to the Technical Specification will not create the possiblity of a new or different kind of accident from any accident previously evaluated. No new modes of operation are being imposed on the plant and the diesel generators will continue to perform their function as designed.

The revision does not result in a significant reduction in the margin of safety provided for events involving a loss of electrical power. The proposed revision will allow the implementation of a modification which is intended to improve the reliability of the diesel generators by minimizing the possibility of spurious trips.

CONCLUSION

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