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December 14, 1990

W. G. Hairston, III
Senior Vice President
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Docket Nos. 50-424
50-425

ELV-02358
043

U.S. Nuclear Regulatory Commission
ATTN: Mr. Gus C. Lainas, Assistant Director
Reactor Projects - Region II
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REQUEST FOR TEMPORARY WAIVER OF COMPLIANCE

Technical Specification (TS) Surveillance Requirement 4.7.7.d.4 requires that the heaters in the Piping Penetration Area Filtration and Exhaust Systems dissipate 80 ± 4 KW when tested in accordance with Section 14 of ANSI N510-1980. This surveillance is to be performed at least once per 18 months. As a result of a recent audit of TS surveillances, it was determined that the heater output had not been properly corrected for voltage in accordance with ANSI N510-1980. When this was done, the heater output for one train on Unit 2 and both trains on Unit 1 was found to be less than the minimum allowable value of 76 KW. Consequently, TS 3.0.3 was entered for Unit 1 and TS 3.7.7 was entered for Unit 2. As explained in the following paragraphs, calculations show that actual heater output (properly corrected for voltage) meets the required functional design requirements and that the TS limit is conservative. This letter is a followup to the telephone conversations held on December 13, 1990 during which NRC granted a verbal waiver of compliance from the requirement of TS 4.7.7.d.4 so that an exigent request to amend the TS limit can be prepared and submitted for your review. When this problem was discovered, Georgia Power Company (GPC) was already in the process of preparing such an amendment request for the Control Room Emergency Filtration Systems, the Piping Penetration Area Filtration and Exhaust Systems and the Fuel Handling Building Post Accident Ventilation Systems.

The basis for our request for a temporary waiver is as follows. The present TS surveillance for heater output was based on the purchase specification rated capacity for the heaters and not the minimum required value to maintain the relative humidity of the airstream through the filters under design basis conditions. Heaters rated at 80 KW at 480 volts were procured based on

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design temperature, air flowrate and voltage. System confirmatory calculations were prepared by the Architect Engineer which determined a required capacity of 62 KW and concluded that the vendor sized unit of 80 KW was acceptable. During preparation of the TS, a review of the system confirmatory calculations was conducted and the value of 80 KW was inserted into the Technical Specifications. These calculations did not, however, address the effect of degraded voltage on the capacity of the heaters. Based on actual temperature survey data and actual measured air flows, a new calculation has been performed to determine the required heater capacity. From this calculation a heater capacity requirement has been determined which will limit the relative humidity of the airstream through the filters to a value of 70 percent or less. Using as-built electrical distribution system documents, the capacity of the heaters installed in the Piping Penetration Area Filtration and Exhaust Systems for both units was determined to be greater than the minimum required.

Additionally, the actual TS surveillance data for the heaters was evaluated for degraded voltage conditions, with the result that the capacity of all four heaters, after adjustment for degraded voltage, exceeds the required capacities noted above. All other TS surveillance requirements for the Piping Penetration Area Filtration and Exhaust Systems for both units continue to be met.

In consideration of the above, the proposed temporary waiver does not involve a significant hazards consideration. The probability or consequences of any accident previously evaluated are not affected because sufficient heater capacity exists so that the system will continue to perform its safety function as discussed in the FSAR. The function of these heaters is to limit the relative humidity of the airstream through the filters to a value of 70 percent or less. The proposed waiver does not create the possibility of a new or different kind of accident than any previously evaluated because the equipment will continue to be operated in the intended manner. No new operational modes or requirements are being imposed. There is no reduction in margin of safety because the required heater output will be maintained for the system to function as required. Furthermore, there are no irreversible environmental consequences because there is no environmental impact associated with this waiver. The equipment will continue to operate as designed and analyzed.

In addition, to support this request for waiver we have attached a mark-up of TS 4.7.7.d.4 for your consideration. Since the basis for heater operation is to limit the relative humidity of the airstream through the filters to 70 percent or less, thereby maintaining filter efficiency by protecting the filters from moisture buildup, GPC plans to submit an amendment request which would revise the TS surveillance to directly reflect this requirement. The proposed wording

is independent of voltage and air flowrate yet it is specific to the design basis of the heaters. The appropriate acceptance criteria will be added to the surveillance procedure and a description of the methodology to ensure that the design basis of the heaters is maintained will be added to the FSAR.

On the basis of the above discussion, GPC requests this temporary waiver until such time as the NRC is able to review and approve an exigent amendment request. GPC expects to submit the subject amendment request by December 21, 1990. The Plant Review Board has reviewed and recommended approval of this request.

If you have any question, please contact this office.

Sincerely,

W. G. Hairston, III

WGH,III/NJS/clr

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. W. B. Shipman
Mr. P. D. Rushton
Mr. R. M. Odom
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebneter, Regional Administrator
Mr. D. S. Hood, Licensing Project Manager, NRR
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heater capacity is sufficient to maintain the relative humidity of the airstream through the filters at 70 percent or less under design basis accident conditions when tested in accordance with Section 14 of ANSI N510-1980.

PLANT SYSTEMS

3/4.7.7 PIPING PENETRATION AREA FILTRATION AND EXHAUST SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

2) Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 99.8% when tested with methyl iodide at 30°C and 70% relative humidity.

3) Verifying a system flow rate of 15,500 cfm ± 10% during system operation when tested in accordance with Section 8 of ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criteria of greater than or equal to 99.8% when tested with methyl iodide at 30°C and 70% relative humidity;

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 15,500 cfm ± 10%.

2) Verifying that the system starts on a Containment Ventilation Isolation test signal,

3) Verifying that the system maintains the Piping Penetration Filtration Exhaust Unit Room at a negative pressure of greater than or equal to 1/4 inch Water Gauge relative to the outside atmosphere (PDI-2550, PDI-2551), and

4) Verifying that ~~the heaters dissipate 80 ± 4 kW when tested in accordance with Section 14 of ANSI N510-1980.~~

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.95% of the DOP when they are tested in-place in accordance with Section 10 of ANSI N510-1980 while operating the system at a flow rate of 15,500 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with Section 12 of ANSI N510-1980 while operating the system at a flow rate of 15,500 cfm ± 10%.