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ELV-02269
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Docket Nos. 50-424
50-425

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

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
GENERIC LETTER 90-06

On June 25, 1990, the NRC issued Generic Letter (GL) 90-06, "Resolution of Generic Issue 70, 'Power-Operated Relief Valve and Block Valve Reliability,' and Generic Issue 94, 'Additional Low-Temperature Overpressure Protection For Light Water Reactors,' Pursuant to 10 CFR 50.54 (f)." The generic letter required PWR licensees to advise the NRC staff, under oath or affirmation within 180 days of the date of the letter, of our current plans relating to pressurizer power operated relief valves (PORVs) and block valves and to low-temperature overpressure protection; in particular, whether we intend to follow the staff positions in Enclosures A and B as applicable, or propose alternative measures, and our proposed schedule for implementation.

Item 3.1 of Enclosure A of GL 90-06 requests the following:

- "1. Include PORVs and block valves within the scope of an operational quality assurance program that is in compliance with 10 CFR Part 50, Appendix B. This program should include the following elements:
 - a. The addition of PORVs and block valves to the plant operational Quality Assurance List.
 - b. Implementation of a maintenance/refurbishment program for PORVs and block valves that is based on the manufacturer's recommendations or guidelines and is implemented by trained plant maintenance personnel.
 - c. When replacement parts and spares, as well as complete components, are required for existing non-safety-grade PORVs and block valves (and associated control systems), it is the intent of this generic letter that these items may be procured in accordance with the original construction codes and standards."

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At the Vogtle Electric Generating Plant (VEGP), the PORVs are safety related as described in subsection 5.4.13 of the Updated Safety Analysis Report (USAR). The PORVs were designed in accordance with the ASME code and are qualified via the Westinghouse pump and valve operability program which is described in paragraph 3.10.N.2.2 of the USAR.

The VEGP Quality Assurance List (Q-List) is Table 3.2.2-1 in the USAR. The PORVs are item 11 on the table and the block valves, although not explicitly listed, are covered by item 35. Therefore, the PORVs and block valves are part of the operational quality assurance program.

The maintenance/refurbishment program for the PORVs and block valves is based on the manufacturer's recommendations and evaluated for plant specific applications. Replacement parts and spares are procured in accordance with the appropriate codes and standards.

Item 3.1 of Enclosure A also requests that licensees:

- "2. Include PORVs, valves in PORV control air systems, and block valves within the scope of a program covered by Subsection IWV, 'Inservice Testing of Valves in Nuclear Power Plants,' of Section XI of the ASME Boiler and Pressure Vessel Code. Stroke testing of PORVs should only be performed during Mode 3 (Hot Standby) or Mode 4 (Hot Shutdown) and in all cases prior to establishing conditions where the PORVs are used for low-temperature overpressure protection. Stroke testing of the PORVs should not be performed during power operation. Additionally, the PORV block valves should be included in the licensees' expanded MOV test program discussed in NRC Generic Letter 89-10, 'Safety-Related Motor Operated Valve Testing and Surveillances,' dated June 28, 1989."

At VEGP the PORVs, which are electrically solenoid operated, are included in the Inservice Test Program, Volume ISI P-008 (for Unit 1) and ISI P-016 (for Unit 2). The IST program requires these valves to be tested prior to their being required for cold overpressurization protection (i.e., in Modes 3 or 4) as determined by Technical Specifications. Additionally, the PORV block valves are stroke tested quarterly in accordance with the Technical Specifications and have been included in our expanded MOV test program as required by NRC GL 89-10, "Safety-Related Motor Operated Valve Testing and Surveillance."

Item 3.1 of Enclosure A further states:

- "3. For operating PWR plants, modify the limiting conditions of operation of PORVs and block valves in the technical specifications for Modes 1, 2, and 3 to incorporate the position adopted by the staff in recent licensing actions. Attachments A-1 through A-3 are provided for guidance. The staff recognizes that some recently licensed PWR plants already have technical specifications in accordance with the staff position. Such plants are already in compliance with this position and need merely state that in their response. These recent technical specifications require that plants that run with the block valves closed (e.g., due to leaking PORVs) maintain electrical power to the block valves so they can be readily opened from the control room upon demand. Additionally, plant operation in Modes 1, 2, and 3 with PORVs and block valves inoperable for reasons other than seat leakage is not permitted for periods of more than 72 hours."

Enclosure A-1 proposes a technical specification for Combustion Engineering and Westinghouse plants with two PORVs. The current VEGP technical specification for the PORVs is consistent with the NRC position presented in Attachment A-1 with two differences. The first difference involves ACTION statement a. and the requirement to maintain power to closed block valves. The VEGP ACTION statement does not address whether or not power is maintained to the block valve; however, it is our practice to maintain power to the block valve. The second difference involves ACTION statement d. of Attachment A-3. In the event of inoperable block valves, the VEGP technical specification requires either closure and deenergization of the block valves or closure and deenergization of the PORVs. The technical specification recommended by the staff requires the PORVs to be placed in manual control. The effect is the same. In either case, an unisolable stuck-open PORV cannot occur. However, GPC takes exception with the basis for the NRC version of ACTION statement d. as discussed in Attachment A-3. The discussion in Attachment A-3 states that the OPERABILITY of the PORVs is based, in part, on their being able to automatically control reactor coolant system pressure to reduce challenges to the safety valves. However, Westinghouse standards for transient and accident analyses state that control systems are not assumed to operate unless their operation will cause the results of the transient or accident analysis to be more severe. In keeping with Westinghouse standards, the VEGP accident analyses do not rely on automatic actuation of the PORVs to prevent overpressurization. (Reference letter ELV-01265, dated February 2, 1990.)

VEGP Technical Specification 3/4.4.4, "Relief Valves," is adequate to ensure that the PORVs are available for manual operation for mitigation of a steam generator tube rupture accident and achieving plant cooldown in accordance with Branch Technical Position RSB 5-1 to Standard Review Plan Section 5.4.7. Therefore, the existing VEGP Technical Specification 3/4.4.4 is in compliance with the NRC's position as stated in Generic Letter 90-06 and Georgia Power Company (GPC) does not intend to submit a technical specification change to address the differences noted above.

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In Enclosure B of GL 90-06, the staff provides an extended discussion of its positions resulting from the resolution of Generic Issue 94, "Additional Low-Temperature Overpressure Protection For Light-Water Reactors." The resolution of this generic issue is extensively discussed in NUREG-1326, "Regulatory Analysis for the Resolution of Generic Issue 94." The NUREG states that newer plants, which use either safety relief valves (SRVs) in the residual heat removal (RHR) system and the PORVs were placed in Group 2; i.e., those plants using RHR SRVs for overpressure protection. The generic letter also indicates that the guidance provided in Attachment B-1 is also applicable to plants that rely on both PORVs and RHR SRVs.

Georgia Power Company discusses low temperature overpressure protection in subsections 5.2.2.10 and 5.2.2.11 of the USAR. During low temperature plant operations, the following precautions are in effect to limit the potential for a cold overpressurization event:

- The Residual Heat Removal System (RHRS) suction lines are not isolated unless there is a bubble in the pressurizer. This ensures a relief path via the RHRS SRVs during water solid operation.
- The Technical Specifications restrict the starting of reactor coolant pumps based on the difference between secondary and primary water temperatures. Furthermore, GPC has submitted a proposed amendment to the Technical Specifications (ELV-01901, dated September 20, 1990) which provides for additional restrictions on starting reactor coolant pumps in Mode 4 when no other reactor coolant pumps are in operation.
- The Technical Specifications restrict the operability of the safety injection pumps in accordance with plant specific cold overpressurization analyses.
- The PORV setpoints are adjusted based on plant specific analyses in accordance with the Technical Specifications. Furthermore the actuation electronics of the PORVs are tested in accordance with the Technical Specifications.
- As appropriate, other precautions related to ECCS pump performance testing, Safety Injection signal circuitry testing, letdown and charging during water solid operation, and prevention of inadvertent ECCS actuation are observed to prevent cold overpressurization events.

These precautions are consistent with the discussion presented in Enclosure B to GL 90-06. At VEGP, the operability of two PORVs, or two RHR SRVs, or an RCS vent opening as described in Technical Specification 3.4.9.3c ensures that the RCS will be protected as required by 10 CFR 50, Appendix G. Either PORV or either RHR SRV has been shown by plant specific analysis to have adequate

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relieving capability to protect the RCS from overpressurization as a result of a design basis mass addition or heat addition event. GPC believes that the protection provided by the PORVs and/or RHR SRVs in addition to the limitations on safety injection pump operability, starting of reactor coolant pumps and other administrative controls are adequate to meet the intent of GL 90-06 (i.e., to minimize the potential for cold overpressurization events).

The VEGP Cold Overpressure Technical Specification currently allows use of either the PORVs or RHR SRVs. A sample specification for this configuration was not provided in Enclosure B of GL 90-06. A revised Technical Specification which reflects this configuration will be proposed and will adopt a 24-hour allowed outage time when only one means of Cold Overpressure Protection is available. The proposed technical specifications will require that at least two of these devices must be operable; i.e., 2 PORVs, or 2 RHR SRVs, or 1 PORV and 1 RHR SRV must be operable when cold overpressure protection is required. GPC expects to submit this proposed change prior to the end of the next refueling outage which occurs six months after the issuance of GL 90-06. This is consistent with the requirements of GL 90-06.

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 are true.

GEORGIA POWER COMPANY

By: W. G. Hairston, III
W. G. Hairston, III

Sworn to and subscribed before me this 20 day of December, 1990.

Anger Carter
Notary Public

MY COMMISSION EXPIRES JANUARY 12, 1993

WGH, III/PAH/gm



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