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March 26, 1984

Director of Nuclear Reactor Regulation  
Attention: Mr. John F. Stolz, Chief  
Operating Reactors Branch No. 4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
SAFETY RELIEF VALVE CYCLING PROGRAM

Gentlemen:

Correspondence dated July 9, 1982, and February 2, 1983, from Georgia Power Company to the NRC-Region II described Safety Relief Valve (SRV) manual cycling being done on both Hatch units as a result of SRV high-setpoint drift experienced on Hatch-1 in July 1982. Nine of the eleven SRVs per unit have been manually operated at a nominal 92-day frequency under this program.

Since our last correspondence on this topic, the Boiling Water Reactor Owners Group (BWROG) SRV Setpoint Drift Committee has completed an investigation into the phenomenon and provided recommendations for improving valve performance. The investigation program and resulting recommendations were the topic of an information meeting with the NRC, held in the Phillips building in Bethesda on November 10, 1983.

Based upon the results of the BWROG investigation, GPC intends to discontinue the program of periodic manual operation of SRVs. This decision is based on the following considerations:

1. Valve cycling was intended to clean a corrosion product from the pilot valve disc, and thereby eliminate sticking caused by corrosion bonding. Later investigation has shown that the corrosion product is strongly adherent and is not removed by valve operation of short duration. Longer periods of valve operation are not desirable because of possible adverse plant responses, and erosion of valve parts causing premature leakage. In the future, any corrosion present in the disc and seat area will be removed per BWROG recommendations during periodic recertification of the SRVs. While there is no assurance that this practice will totally eliminate setpoint drift due to pilot disc/seat sticking, we are confident

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that frequency and severity of its occurrence will be reduced to an acceptable level. General Electric Company has agreed to monitor the performance of two stage Target Rock SRVs at Plant Hatch and other BWR plants for a two year period. Further corrective action will be pursued if improved maintenance does not correct the problem.

2. The BWROG investigation results show that the largest contributor to setpoint drift is friction between the pilot valve rod and its guide bushing. The friction is caused by inadequate clearance between these components. The clearance problem will be corrected, and a lubricant will be used per BWROG recommendations on all SRVs in service at Plant Hatch. Cycling of the valves during plant operation is unlikely to reduce friction forces or beneficially affect the valve's setpoint.
3. Investigators from General Electric Company who conducted the BWROG program, have concluded that the Hatch-1 event in July 1982 was a unique non-repetitive event probably influenced by a chemical intrusion which occurred in April, 1982. It is believed that the chemistry transient accelerated corrosion of the pilot disc and seat and thereby caused sticking. In the event of such a chemistry transient occurring in the future, appropriate measures will be taken to assure reliable operation of the SRVs. Corrective measures would involve either manual cycling of the valves after restart, or, in an extreme case such as occurred in April 1982, refurbishment of the SRVs.
4. SRV cycling has caused valves to leak prematurely and has contributed to unwarranted wear on associated components.

We will continue to keep you informed of any developments. Please contact this office if you have any questions or comments.

Yours very truly,



L. T. Gucwa

PLS/mw

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