SYSTEM ENERGY RESOURCES, INC.

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Vice President
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February 29, 1988

U. S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30323

Attention: Dr. J. Nelson Grace, Regional Administrator

Dear Dr. Grace:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
SSW Flow Monitoring Program
AECM-88/0045

This letter documents a change in the Standby Service Water (SSW) system flow monitoring program as originally described during the February 4, 1987, meeting between System Energy Resources, Incorporated (SERI) and the NRC. This meeting is documented in an NRC letter dated March 3, 1987 (MAEC-87/0055). In the meeting, SERI committed to perform periodic SSW flow monitoring surveillances to verify adequate flow to the Engineered Safety Feature (ESF) electrical switchgear room coolers with the flow data to be taken with SSW in the Loss of Coolant Accident (LOCA) lineup. Since that commitment was made, two issues have arisen.

First, as a result of a design review performed on the SSW system and as described in AECM-87/0095 dated May 8, 1987, a potential waterhammer concern was identified. The affected components are the Fuel Pool Cooling and Cleanup (FPCCU) heat exchangers and the drywell purge compressors. Even though the potential for and severity of the waterhammer is low, SERI considered it prudent to minimize the amount of time SSW is aligned to the heat exchangers and compressors during normal operations. In AECM-87/0095, SERI committed to limit testing with SSW aligned to these heat exchangers and purge compressors and to pursue alternative waterhammer mitigation methods.

Second, each time the SSW flow monitoring surveillance is performed, SSW water degrades the water quality of the Component Cooling Water (CCW) system causing the CCW system water chemistry to exceed normal operating limits. The reason for this degradation is that the CCW system normally supplies cooling for the FPCCU heat exchangers. When the flow surveillance is performed, the SSW system is valved into the heat exchangers. When CCW is subsequently realigned to the heat exchangers following the surveillance, the SSW system water remaining in the heat exchangers mixes with the CCW system water resulting in CCW system chemistry degradation.

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In order to address both issues, SERI will perform the flow monitoring surveillance for the ESF switchgear room coolers with the FPCCU heat exchangers and the drywell purge compressors in the normal, isolated alignment. This will not affect the ability of the SSW system to properly respond should it be required while testing is in progress. The heat exchangers and compressors will be valved in for the overall SSW system flow balance surveillance consistent with the February 4, 1987 meeting commitments.

The minimum acceptable room cooler flowrates currently used will be increased by 5% to account for isolation of the compressors and heat exchangers. The 5% increase was determined from actual flow testing following the second refueling outage and confirmed by engineering system flow analysis to be an adequate representation of flow for the revised test configuration as compared to the SSW system flowrates in a post LOCA lineup.

This request to modify the February 4, 1987, commitment was discussed with your staff during a February 16, 1988, telephone conference. NRC concurrence on this commitment change was received verbally on February 22, 1988.

Yours truly,

FOR O. D. KINGSLEY, JR.

ODK:jjb

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