November 20, 1987

Docket No. 50-388

Mr. Harold W. Keiser
Vice President
Nuclear Operations
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, PA 18101

Dear Mr. Keiser:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION

RE: Susquehanna Steam Electric Station (SSES), Unit 2

We have reviewed your request dated June 30, 1987 for SSES Unit 2 Technical Specification changes to permit indefinite operation of the Unit with single operating recirculation loop. Our review indicates a need for additional information before we can complete the review.

Please provide answers to the enclosed set of questions within 30 days from the receipt of this request so that we can complete our action on your request in a timely fashion.

Sincerely,

8711250260 871120
PDR ADOCK 05000388
P PDR

/s/
Mohan C. Thadani, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II

Enclosure

cc: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Mohan C. Thadani, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II

Enclosure

cc: See next page

Mr. Harold W. Keiser
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station
Units 1 & 2

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REQUEST FOR ADDITIONAL INFORMATION
FOR
SUSQUEHANNA UNIT #2 SLO

1. The limiting event which determines operating limit MCPR seems to be recirculation pump seizure accident (0.35 ΔCPR for the GE 8x8 fuel). Submit the analysis of the recirculation pump seizure accident for the GE fuel. It is stated that PP&L did not take credit for the recirculation pump seizure accident analysis performed by Advanced Nuclear Fuels corporation (ANF). Describe why credit is not taken for this analysis in determining the operating limit MCPR.

2. In the Susquehanna Unit 2, Cycle 2 single loop operation analysis performed by Exxon, (XN-NF-86-146, November 1986), peak calculated pressure for different transients is not given. Submit the calculated peak pressure for the transients analyzed for SLO.

3. In the Susquehanna Unit 2, cycle 2 LOCA analysis for SLO performed by EXXON (XN-NF-86-125 November 1986), the following statement is given in the introduction section, "A previous analysis for single loop operation by the NSSS vendor made simplifying conservative assumptions. These conservative assumptions resulted in a reduction in the MAPLHGR limit for single loop operation. The analysis reported herein was made without such simplifying assumptions."

   Describe in detail which simplifying assumptions ANF decided to delete and the basis for their deletions. Also describe which assumptions ANF used in the SLO LOCA analysis.

4. Only a limited break spectrum analysis was performed to confirm that the two-loop limiting break remained applicable for SLO. Justify the use of a limited break spectrum analysis instead of the complete break spectrum analysis.

5. In the report XN-NF-86-125, Section 3.2, Appendix-K spray heat transfer coefficients are used for the spray cooling period. Justify the use of these heat transfer coefficients since they are not approved for 9x9 fuel being used in SSES #2, Cycle 2.

6. In XN-NF-86-146 SSES Unit #2, Cycle2 ANF SLO analysis, core flow measurement uncertainty during SLO is not addressed. It is stated that the procedure established by GE to correct for the back flow through the inactive jet pumps is also applicable for a core with ANF fuel. Describe in detail the applicability for ANF fuel.

7. The Rod Withdrawal Error (RWE) transient is not analyzed for ANF fuel. Describe in detail the insignificance of this transient for SLO operation.