

February 23, 2000

Mr. Harold W. Keiser  
Chief Nuclear Officer & President -  
Nuclear Business Unit  
Public Service Electric & Gas  
Company  
Post Office Box 236  
Hancocks Bridge, NJ 08038

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION, SAFETY LIMIT MINIMUM  
CRITICAL POWER RATIO AND FUEL VENDOR CHANGE, HOPE CREEK  
GENERATING STATION (TAC NO. MA6771)

Dear Mr. Keiser:

In a letter dated September 30, 1999, Public Service Electric and Gas Company (PSE&G) submitted an application for an amendment to the Technical Specifications (TSs) for Hope Creek Generating Station. The proposed amendment would revise the TSs associated with the Safety Limit Minimum Critical Power Ratio (SLMCPR) in order to support the operation of Hope Creek in the upcoming Cycle 10 with a mixed core of General Electric (GE) and Asea Brown Boveri/Combustion Engineering (ABB/CE) fuel. In addition, administrative changes would be made to the TSs to reflect the change in fuel vendor from GE to ABB/CE.

The Nuclear Regulatory Commission staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure. We request that the additional information be provided within 60 days of receipt of this letter. The 60-day response timeframe was discussed with Mr. James Priest of your staff on February 9, 2000. If circumstances result in the need to revise your response date, or if you have any questions, please contact me at (301) 415-1420.

Sincerely,

*/RA/*

Richard B. Ennis, Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosure: Request for Additional Information

cc w/encl: See next page

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Hope Creek Generating Station

cc:

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Hancocks Bridge, NJ 08038

REQUEST FOR ADDITIONAL INFORMATION  
SAFETY LIMIT MINIMUM CRITICAL POWER RATIO (SLMCPR)  
AND FUEL VENDOR CHANGE,  
HOPE CREEK GENERATING STATION

**NOTE:** The regulatory basis for the following questions is that the thermal and hydraulic design of the reactor core conforms to the requirements of General Design Criteria (GDC) 10 of Appendix A to Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50). This GDC states that the reactor core and associated coolant, control, and protection systems shall be designed with appropriate margin to assure that specified acceptable fuel design limits are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences.

1. Hope Creek Cycles 7 through 9 were composed entirely of GE9B fuel, and Cycle 10 will be a mixed core of 532 GE9B and 232 SVEA-96+ fuel assemblies. Provide justification in terms of the SLMCPR analyses that under the mixed core condition the highest SLMCPR values in Cycle 8 are still conservatively valid for Cycle 10 operation since there are still 196 once-burned GE9B assemblies.
2. Please describe “reference core loading pattern and state point depletion strategy” and conservative radial power distributions used for the Cycle 10 SLMCPR analyses and identify the difference from that used in Cycle 9 analyses and their impact on the results. Provide the criterion for selecting reference core loading pattern and state point depletion strategy and their role played in the Cycle 10 SVEA-96+ SLMCPR calculation.
3. Provide details of US96G9 CPR correlation and the data bases to support the proposed value of a multiplier on CPR values. Also, provide justification that the proposed multiplicative factor provides conservative margin for the application of the approved ABB/CE methodology to the mixed core of ABB/CE and GE fuel at Hope Creek.

**Enclosure**