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Electric and Gas
Company

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September 17, 1987

NLR-N87157

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

REQUEST FOR AMENDMENT
SALEM GENERATING STATION
UNIT NOS. 1 AND 2
DOCKET NOS. 50-272/50-311

The attached information is being provided to support the NRC Staff's review of PSE&G's License Change Request (LCR) 87-05. This LCR was previously submitted via PSE&G letter NLR-N87078 dated May 5, 1987. The enclosed information is the Westinghouse evaluation of the effects of the proposed RTD bypass piping elimination modification on the Salem Setpoint study.

As discussed in Section 7.2 of the Combustion Engineering Licensing Report S-87-05, submitted previously, PSE&G is confident that the 6.0 second total system response time will be met with the new system. However, in discussions with Westinghouse, PSE&G learned that some components of this time response are treated differently than other components. Specifically, some components are modeled as a first order lag and the rest are treated as a pure delay. Westinghouse clarified that depending on the transient, a first order lag can result in later rod motion than a pure delay of the same magnitude. PSE&G requested that Westinghouse provide a sensitivity study for the worst potential breakdown. This study is Section I of the report being transmitted, WCAP-11579. Scoop delay is assumed to be all first order lag. All the time allocated for RTD/thermowell testing inaccuracy is likewise modeled as first order lag. Lastly, the electronic, pure delay is reduced from 1.0 to 0.5 seconds so as to further increase the first order lag portion of the 6.0 seconds total system response. The results of this sensitivity study are that the DNBR design limit will continue to be met and that the conclusions of the FSAR remain valid.

Westinghouse subsequently advised PSE&G that the minimum DNBR for rod withdrawal at power, shown in Figure 15.2.8 of Salem's UFSAR, remains bounding. Specifically, at a reactivity insertion rate of 5 pcm/sec and with minimum reactivity feedback, an increase in

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first order delay from 4.5 to 5.5 seconds (with a commensurate decrease in true delay times) results in an increase in the minimum DNBR. This increase is insignificant, but it demonstrates that the existing UFSAR analysis remains bounding and need not be revised.

Section II of WCAP-11579 discusses hot leg streaming. For conservatism and to allow Combustion Engineering to minimize the amount of proprietary information transferred to Westinghouse, a conservative bounding scoop mixing error was transmitted to Westinghouse for use in the streaming uncertainty calculation. The Combustion Engineering proprietary report, transmitted earlier, on test results for the modified scoop provides a more realistic assessment of scoop mixing.

In accordance with the provisions of 10CFR2.790, the Licensee requests withholding portions of this document from disclosure to the public. Portions of this document contain information which is considered to be withholdable under 10CFR2.790(2)(4). Justification is provided in the enclosed Westinghouse affidavit. The enclosed document should be considered proprietary as indicated therein. A non-proprietary version of the document is also enclosed.

Should there be any questions, please feel free to contact us.

Sincerely,



Enclosures

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