

Public Service  
Electric and Gas  
Company

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Vice President - Nuclear Operations

MAR 01 1993

NLR-N93028

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

Gentlemen:

NRC BULLETIN 88-08  
THERMAL STRESSES IN PIPING CONNECTED TO REACTOR COOLANT SYSTEM  
SALEM GENERATING STATION  
UNIT NOS. 1 AND 2  
DOCKET NOS. 50-272 AND 50-311

By letter dated January 31, 1992 (Ref: NLR-N91210), Public Service Electric & Gas Company (PSE&G) provided a response to address the thermal stress concerns of Bulletin 88-08 resulting from valve leakage. PSE&G proposed to establish double isolation valves in the Safety Injection lines, and establish flow in the Auxiliary Pressurizer Spray and the Alternate Charging lines. Prior to implementing the proposed changes, PSE&G committed in this letter to perform an evaluation of the new valve lineups.

PSE&G has completed the evaluations of the new valve lineups. The proposed change for the Safety Injection lines, double valve isolation, will alleviate the Bulletin 88-08 concerns. However, implementing this change will isolate a section of piping including the Boron Injection Tank with no overpressurization protection. In order to implement the proposed change, PSE&G will be required to install a thermal relief valve to provide the necessary overpressure protection. PSE&G will also provide additional administrative controls to monitor the isolated section of Safety Injection piping for under pressure due to thermal contraction. PSE&G proposes to complete the required modifications during the Salem Unit 2 eighth refueling outage, currently scheduled for the fall of 1994 and during the Salem Unit 1 twelfth refueling outage, currently scheduled for the spring of 1995. This schedule will allow sufficient time to obtain the required materials necessary to perform the modifications.

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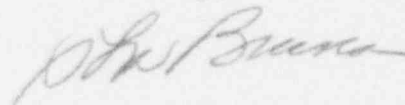
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The engineering evaluation of the proposed changes to reposition valves to ensure constant flow through the Auxiliary Pressurizer Spray and the Alternate Charging lines shows that this change would eliminate the Bulletin 88-08 concerns. However, the evaluation also concluded that additional concerns such as the potential adverse impact on RCS/CVCS/pressurizer components due to normal operation in this configuration supported the need for an alternate solution. Therefore, PSE&G is proposing to perform a detailed thermal fatigue evaluation, including postulated valve leakage transients instead of operating with constant flow through these lines. This fatigue analysis will be based on plant specific conditions to demonstrate a usage factor that will preclude failures. PSE&G proposes to complete the required analysis by December 31, 1993.

Non-destructive examinations of susceptible welds have been completed during the previous two refueling outages for both Unit 1 and Unit 2. No indications of fatigue related cracks have been found to date. Until the proposed analysis is completed and modifications installed, PSE&G will continue to conduct non-destructive testing (NDE) on the Safety Injection, Auxiliary Pressurizer Spray and Alternate Charging lines during each refueling outage.

Should there be any questions with regard to this submittal, please do not hesitate to contact us.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. L. Bruno", is written over the typed name "J. L. Bruno". The signature is fluid and cursive.

MAR 01 1993

C Mr. J. C. Stone  
Licensing Project Manager

Mr. T. Johnson  
Senior Resident Inspector

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