

SEP 21 2001



LRN-01-0316

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

Gentlemen:

**INSERVICE INSPECTION PROGRAM
RELIEF REQUEST S2-RR-B05
SALEM GENERATING STATIONS
FACILITY OPERATING LICENSES DPR-75
DOCKET NOS. 50-311**

Pursuant to 10CFR50.55a(a)(3)(ii), PSEG Nuclear requests relief from ASME Section XI, Appendix VIII Supplements 2 and 3 for piping welds to be examined from the inside surface.

PSEG Nuclear proposes to continue with the past practice of performing the ultrasonic examination of the safe-end to pipe welds from the inside surface in accordance with the 1986 Edition, of the ASME Boiler and Pressure Vessel Code, Section XI, Paragraph IWA-2232 (b) and Appendix III.

PSEG Nuclear requests NRC approval by April 1st, 2002, as this relief request is applicable to the Salem Unit 2, 10-year second interval vessel examination scheduled for the spring of 2002. Similar relief was granted for Salem Unit 1 (TAC No. MB1236) in a Nuclear Regulatory Commission (NRC) Safety Evaluation dated April 26, 2001.

The attachment to this letter includes the supporting justification for the relief. Based on the evaluation contained in the attachment, PSEG Nuclear has concluded that the proposed alternative provides an acceptable level of quality and safety, satisfying the requirements of 10 CFR 50.55a(a)(3)(ii).

Should you have any questions regarding this request, please contact Mr. Howard Berrick at 856-339-1862.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Salamon", written over a horizontal line.

G. Salamon
Manager – Nuclear Safety and Licensing

Attachment: ISI Relief Request No. S2-RR-B05

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**PSEG NUCLEAR LLC
SALEM GENERATING STATION
ISI RELIEF REQUEST S2-RR-B05**

COMPONENT DESCRIPTION:

Salem Unit 2 Class 1, Category B-J Pressure Retaining Piping welds attaching the Reactor Pressure Vessel (RPV) Nozzle Safe Ends to pipe.

ASME CODE CLASS:

ASME Section XI Class 1

ASME EXAMINATION REQUIREMENTS

The 1999 Edition of 10 CFR 50.55(a) Codes and Standards was revised by Federal Register Notice 64 FR 51400, September 22, 1999. This revision requires that ASME Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, 1995 Edition with 1996 Addenda, Appendix VIII, Supplements 2 and 3 for wrought austenitic piping welds be implemented by May 22, 2000.

RELIEF REQUESTED:

Pursuant to 10CFR50.55a(a)(3)(ii), PSEG Nuclear requests relief from ASME Section XI, Appendix VIII Supplements 2 and 3 for piping welds to be examined from the inside surface. This relief request would be for the Salem Unit Two 10-year 2nd interval vessel examination schedule for the spring of 2002.

BASIS FOR RELIEF

The subject welds can be made accessible for the ultrasonic (UT) examination from the outside surface, however, the examination would be severely limited. Limitations from the pipe outside diameter (OD) would be due to the close proximity of two welds, RPV nozzle to safe end weld and the safe end to pipe or elbow weld. The inlet safe-end-to-cast-elbow weld would be a single sided examination due to surface contour. There are currently no Appendix VIII qualified personnel or procedures for performing piping welds from the inside surface. In lieu of doing the Appendix VIII, Supplements 2, and 3 UT examinations from the pipe OD, PSEG Nuclear requests relief to continue the past practice of performing the UT examination from the inside diameter (ID). This will be done in conjunction with our 10-year vessel examination, utilizing current industry technology. This will reduced the examination limitations by employing the UT from the ID. Additionally, it would decrease the amount of weld or cast metal that the sound beam will travel through by bringing the examination area closer to the transducer surface. The ID examination would reduce the radiation dose and be a cost savings by eliminating the need for the removal of the sand plugs.

The concept of personnel performance demonstrations for ultrasonic examination qualifications was introduced to the nuclear industry in the 1989 Edition, 1989 Addenda, of Section XI. The Performance Demonstration Initiative (PDI) was formed in 1991 to implement the requirements of Appendix VIII. When the PDI proposed an alternative implementation schedule, during the public comment period, it did not consider the ID surface examinations of Category B-J welds performed from the ID surface.

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Qualifications for piping examinations from the OD surface were initiated in 1994. Examinations from the ID surface were considered in the design and fabrication of piping samples. However, it was the intention of PDI to complete the piping qualifications that are performed from the ID surface, in conjunction with the nozzle-to-shell and dissimilar metal welds. These examinations are normally performed using the RPV examination device. A stand-alone qualification for the one or two Category B-J welds past the RPV nozzle will require additional qualification specimens, which are not currently available. Performing separate qualifications at this time, and later returning to perform the nozzle and dissimilar metal weld qualifications places an undo burden on the vendors and owners.

Our vendor would be required to perform an additional qualification exercise if they have to implement Appendix VIII examinations on the subject welds during this outage. It is estimated that the total cost to our inspection vendor could exceed \$100,000. If these qualifications were performed at the same time as the dissimilar metal weld qualifications the additional costs would be minimal.

These combined demonstrations would be performed according to the requirements of Supplement 12 to Appendix VIII. Modifications of Supplement 12 are currently in progress within the ASME Code to address piping examination from the ID surface. The required implementation date for Supplement 12 is November 22, 2002.

PDI has been administering Supplement 2 and 3 exams since 1994. These demonstrations have not included examinations from the pipe ID surface. Supplement 12 examinations are expected to begin by the required implementation date of November 22, 2002. As of the writing of this Relief Request there are no PDI qualified procedures or personnel. Attempting to meet the Appendix VIII qualification requirements for examining the subject welds from the inside surface would pose undo hardship at this time. Relief is therefore requested in accordance with 10 CFR 50.55a(a)(3)(ii). Compliance with the specified requirements of doing the Appendix VIII, Supplements 2, and 3 UT examinations from the pipe OD would result in hardship or unusual difficulty without a compensating increase in the level of safety.

ALTERNATIVE EXAMINATIONS

Perform RPV ultrasonic examination of the safe-end to pipe welds from the inside surface in accordance with the 1986 Edition, of the ASME Boiler and Pressure Vessel Code, Section XI, Paragraph IWA-2232 (b) and Appendix III, per previous commitment until issuance of the final rule.