

August 29, 1990

Docket No. 50-272

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric & Gas Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

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SUBJECT: TEMPORARY RELIEF FROM ASME SECTION XI REQUIREMENTS FOR REPAIR OF SERVICE WATER PIPING, SALEM GENERATING STATION, UNIT 1 (TAC NO. 76933)

By letter dated June 6, 1990, Public Service Electric and Gas Company (the licensee) requested temporary relief from the requirements of Section XI of the ASME Boiler and Pressure Vessel Code for the use of a temporary repair of the service water system 11SW header. This repair is an alternative to performing a repair that meets the ASME Code requirements.

We have reviewed your submittal and determined that the use of the temporary repair as an alternative to a repair that meets ASME Code requirements is acceptable for the remainder of this fuel cycle. A repair that meets ASME Code requirements will be made during the ninth refueling outage, currently scheduled for February, 1991. Granting of relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest, giving due consideration to the burden on the licensee that could result if the requirements were imposed on the facility. Our Safety Evaluation is enclosed. Based on our conclusion, pursuant to 10 CFR 50.55a(g)(6)(i), we grant the relief for the remainder of the current fuel cycle.

Sincerely,

/s/ J. Stone for

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure: Safety Evaluation

cc w/enclosure:
See next page

DOCUMENT NAME: TAC NO. 76933

<i>MO'Brien</i> 8/16/90	<i>JStone</i> PDI-2/PM JStone:ag 8/16/90	<i>WButler</i> PDI-2/D WButler 8/29/90	<i>OGC</i> OGC 8/21/90
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
August 29, 1990

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Officer
Public Service Electric & Gas Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

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Sincerely,

A handwritten signature in cursive script that reads "James C. Stone".

For

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure: Safety Evaluation

cc w/enclosure:
See next page

Mr. Steven E. Miltenberger
Public Service Electric & Gas Company

Salem Nuclear Generating Station

cc:

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

ENCLOSURE

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO REQUESTED TEMPORARY RELIEF FROM

ASME SECTION XI REQUIREMENTS

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

SALEM GENERATING STATION, UNIT NO. 1

DOCKET NO. 50-272

I. BACKGROUND

In January of 1990, Public Service Electric and Gas Company (the licensee) performed a temporary non-code repair on a Salem Unit 1 service water system ASME Code Class 3 piping due to a leak. The leakage resulted from a 0.8-inch diameter hole in a 24-inch diameter and 1/2-inch thick carbon steel header (11SW). In May of 1990, as a result of an Integrated Performance Assessment Program Team Inspection conducted by the NRC, the licensee was questioned about the acceptability of this repair. The staff requested that the licensee submit a request for relief from code repair. By letter dated June 6, 1990, the licensee requested relief from ASME Code repair requirements for the subject 11SW header.

II. EVALUATION OF RELIEF REQUEST

Code Requirement

Articles IWA-4000 of the Section XI of the code specifies the code repair procedures.

Code Relief Request

Relief is requested from the code requirements to repair the 11SW header.

Basis for Relief

Article IWA-4000 repair was not practical because the complete isolation of the subject header necessary for the code repair would render a large number of safe shutdown systems inoperable for an extended period due to absence of cooling water.

Proposed Alternative

The licensee attached a 1/2-inch thick, 4.5-inch by 5-inch carbon steel pipe patch using a 3/8-inch fillet weld over the pipe flaw. A code repair will be performed during the upcoming ninth refueling outage.

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Staff Evaluation and Conclusion

The staff recently issued Generic Letter 90-05, entitled "Guidance for Performing Temporary Non-Code Repair of ASME Code Class 1, 2, and 3 Piping," and dated June 15, 1990. As stated in Generic Letter 90-05, the staff continues to find temporary non-code repairs of code Class 1, 2, and 3 piping unacceptable without specific written relief granted by the NRC. Generic Letter 90-05 also provides guidance that will be considered by the staff in evaluating relief requests submitted by licensees for temporary non-code repairs fo code Class 3 piping. Because the licensee submitted the subject relief request prior the the issuance of Generic Letter 90-05, the staff did not utilize the guidance in Generic Letter 90-05 in evaluating this request.

The licensee applied a welded patch as a temporary non-code repair. In reviews relating to Generic Letter 90-05, the staff does not recommend welded patches as a temporary repair because (1) welding may damage any internal pipe lining, (2) the flaw is hidden by the patch making future inspection difficult, and (3) welding may further degrade the pipe by burn-through of the pipe wall. Nonetheless, the staff finds the repair proposed by the licensee acceptable because (1) a code repair will be performed at the upcoming refueling outage (scheduled for February 1991), (2) the licensee is performing a visual examination of the temporary repair every 3 months, (3) the licensee has determined that flooding resulting from the flawed pipe would be adequately controlled by drainage, flood barriers, and technical specification limits, and (4) the licensee has performed stress analysis of the repaired piping indicating stresses are within the code limits. Future temporary non-code repairs will be reviewed in accordance with Generic Letter 90-05.

The staff has determined that code repair requirements are impractical during operation in that it would render certain safety systems inoperable and code compliance would require plant shutdown. The alternative proposed by the licensee will reasonably assure structural integrity and protect public health and safety. Pursuant to 10 CFR 50.55a(g)(6)(i), temporary relief is granted as requested. This relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest, and is given considering the burden on the licensee that could result if the requirements were imposed on the facility.

Dated: August 29, 1990