

Public Service
Electric and Gas
Company

Stanley LaBruna

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-4800

Vice President - Nuclear Operations

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United States Nuclear Regulatory Commission
Document Control Desk
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Gentlemen:

SUMMARY OF STEAM GENERATOR TUBE PLUGGING
FOURTH REFUELING OUTAGE
SALEM GENERATING STATION
UNIT NO. 2
DOCKET NO. 50-311

On October 10, 1988, Public Service Electric and Gas Company (PSE&G) submitted an emergency license change request for Salem Unit 2 to permit the use of an alternate steam generator tube eddy current inspection sampling method following the discovery of a number of Row 1 tube failures on the No. 22 and No. 24 Steam Generators. The Commission has subsequently granted this license change via Amendment No. 63 to Facility Operating License No. DPR-75 in a letter dated November 1, 1988.

As part of the license change request, PSE&G indicated those Salem Unit 2 steam generator tubes which were to be plugged during the outage. As such, it was intended that this submittal serve the additional purpose of notifying the NRC of the number of steam generator tubes to be plugged pursuant to the requirements of Salem Unit 2 Technical Specification 4.4.6.5.a. Subsequent conversations with Mr. J. Stone, the NRC Project Manager for Salem Generating Station, have indicated that more specific information is requested than that which was provided in the license change request.

The following steam generator tubes were plugged during the Salem Unit 2 Fourth Refueling Outage:

1. All remaining unplugged tubes in Row 1 of all four Salem Unit 2 steam generators were plugged. Eddy current inspection revealed 45 defective tubes in Row 1 of the No. 24 Steam Generator and 46 defective tubes in Row 1 of the No. 22 Steam Generator. These tube failures were indicative of a known problem with Westinghouse Series 51 steam generators, i.e., defects in the tangential region of the

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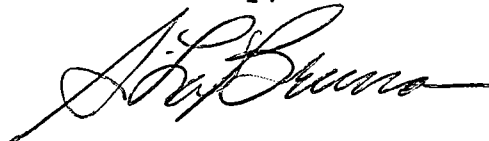
U-bend of Row 1 tubes caused by Primary Water Stress Corrosion Cracking (PWSCC). In addition to the defective tubes, the remaining Row 1 tubes were plugged as a precautionary measure. Although no defective tubes were discovered during the eddy current inspections of the Row 1 and Row 2 tubes in the No. 21 and No. 23 Steam Generators, the unplugged tubes in Row 1 of these steam generators were also plugged as a preventative measure.

Prior to the Fourth Refueling Outage, two leaking Row 1 tubes had been plugged in the No. 24 Steam Generator during a November 1987 outage. Also, forty (40) Row 1 tubes had been previously plugged in November 1984 (10 in each Salem Unit 2 steam generator) due to damage caused by the Tube Lane Blocking Device. Five (5) of these tubes were plugged due to eddy current examinations beyond the Tech. spec. limit of 40% tube wall degradation. The other 35 tubes were plugged as a preventative measure.

2. Two tubes (R9C60 and R10C60) in the No. 24 Steam Generator were also plugged during the Fourth Refueling Outage. These tubes were deemed to be potentially susceptible to a steam generator tube rupture similar to that which occurred at North Anna Unit 1 as qualified by NRC Bulletin 88-02. These two tubes were plugged due to the North Anna considerations and not due to an excessive level of tube wall degradation.

Should you have any further questions with regard to this information, please do not hesitate to contact us.

Sincerely,



C Mr. J. C. Stone
Licensing Project Manager

Ms. K. Halvey Gibson
Senior Resident Inspector

Mr. W. T. Russell, Administrator
Region I

Ms. J. Moon, Interim Chief
New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625