

**MAY 15 2002**



LR-N02-0180

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

Gentlemen:

**RESPONSE TO NRC BULLETIN 2001-01, CIRCUMFERENTIAL CRACKING OF  
REACTOR VESSEL HEAD PENETRATION NOZZLES AND BULLETIN 2002-01,  
REACTOR PRESSURE VESSEL HEAD DEGRADATION AND  
REACTOR COOLANT PRESSURE BOUNDARY INTEGRITY  
SALEM GENERATING STATION UNIT 2  
FACILITY OPERATING LICENSE NO. DPR-75  
DOCKET NO. 50-311**

Bulletin 2001-01, "Circumferential Cracking Of Reactor Vessel Head Penetration Nozzles" and Bulletin 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," requires operators of pressurized-water reactor (PWR) to submit the following information within 30 days after plant restart following the next inspection of the reactor pressure vessel head:

- The inspection scope and results, including the location, size, and nature of any degradation detected,
- The corrective actions taken and the root cause of the degradation.

The results of our inspection are provided in Attachment 1 to this letter. Should you have any questions regarding this response, please contact Michael Mosier at (856) 339-5434.

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MAY 15 2002

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark B. Bezilla". The signature is written in a cursive style with a large, stylized initial "M".

Mark B. Bezilla  
Vice President Nuclear Technical Support

Attachment

**MAY 15 2002**

C: Mr. H. J. Miller, Administrator - Region I  
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USNRC Senior Resident Inspector – Salem (X24)

Mr. K. Tosch, Manager IV  
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**Within 30 days after plant restart following the next inspection of the reactor pressure vessel head to identify any degradation, all PWR addressees are required to submit to the NRC the following information:**

**REQUESTED INFORMATION:**

- **The inspection scope and results, including the location, size, and nature of any degradation detected,**
- **The corrective actions taken and the root cause of the degradation.**

**PSEG RESPONSE:**

During the Salem Unit 2 refueling outage (2R12) April 2002, a planned 100% bare-metal "effective" visual examination of the reactor pressure vessel head was performed to inspect for any indication of boric acid deposits. This inspection was performed in accordance with commitments contained in our letters dated August 31, 2001 (LR-N01-0268) and April 1, 2002 (LR-N02-0108) pertaining to NRC Bulletins 2001-01 and 2002-01, respectively.

To facilitate the examination, the reflective mirror insulation was completely removed from the reactor pressure vessel head, providing a 360-degree, 100% visual access to all penetrations including the head vent. The inspection was not inhibited or masked by the presence of insulation, any deposits or debris or other factors that could interfere with the detection of boric acid leakage; therefore, the capability of detecting and discriminating small amounts of boric acid deposits, if present, was afforded to the certified examiners.

The intersections of 100% of each nozzle and the head vent were easily observed 360 degrees and there was no indication of the presence of boric acid deposits similar to the operating experience of boric acid leakage at other PWR units. The intersections between the Control Rod Drive Mechanism (CRDM) nozzles and the reactor head were well defined and clean of any indication of boric acid deposits that have taken the physical appearance of "popcorn" or evidence of any boric acid crystal growth extruding up from the head, on the outside surface of the CRDM nozzle. There was no evidence of boric acid leakage from sources above the head, such as canopy seal welds that could leak downward onto the head.

The canopy seal welds had developed leaks in 1987 and were highlighted in Generic Letter 88-05. Since the leakage event at Salem Unit 2 in 1987, there has been no recurrence of any boric acid leakage at the Salem Unit 2 head.

Several examinations of the meridional and dollar welds on the reactor pressure vessel head (all on top of the head) for Salem Unit 2 were performed in accordance with the requirements of ASME Section XI IWB-2500-1, Category B-A during 1990, 1991, 1994 and 1999. There has been no visual indication or observation of boric acid deposits or other evidence of boric acid leakage during the performance of these examinations. The inspection completed during the 2R12 refueling outage was the first comprehensive, 100% complete, bare-metal examination of the head, focused on the CRDM nozzle head interface and potential other sources of boric acid leakage such as the canopy seal welds.

In summary, a 100% bare-metal, "effective" visual examination of the Salem Unit 2 reactor pressure head was performed during 2R12, April 2002. There was no evidence of boric acid leakage detected.