



NOV 04 2002

LR-N02-0369

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

Gentlemen:

**RESPONSE TO NRC BULLETIN 2002-02  
REACTOR PRESSURE VESSEL HEAD AND VESSEL HEAD  
PENETRATION NOZZLE INSPECTION PROGRAMS  
SALEM GENERATING STATION UNIT 1  
FACILITY OPERATING LICENSE NO. DPR-70  
DOCKET NO. 50-272**

Bulletin 2002-02, "Reactor Pressure Vessel Head And Vessel Head Penetration Nozzle Inspection Programs," requires operators of pressurized-water reactors (PWRs) to submit examination results within 30 days after plant restart following the next inspection of the reactor pressure vessel head:

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

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

Executed on 4 NOVEMBER 2002

Sincerely,

A handwritten signature in black ink, appearing to read "John Carlin".

John Carlin  
Vice President Nuclear Reliability

Attachment

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**C: Mr. H. J. Miller, Administrator - Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406**

**Mr. R. Fretz, Project Manager - Salem  
U. S. Nuclear Regulatory Commission  
Mail Stop 08B2  
Washington, DC 20555**

**USNRC Senior Resident Inspector – Salem (X24)**

**Mr. K. Tosch, Manager IV  
Bureau of Nuclear Engineering  
33 Arctic Parkway  
CN 415  
Trenton, NJ 08625**

1. **Within 30 days after plant restart following the next inspection of the RPV head and VHP nozzles to identify the presence of any degradation, all PWR addressees are requested to provide:**
  - A. **The inspection scope and results, including the location, size, extent, and nature of any degradation (e.g. cracking, leakage, and wastage) that was detected; details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment, procedure and personnel qualification requirements, including personnel pass/fail criteria); and criteria used to determine whether an indication, "shadow," or "backwall" anomaly is acceptable or rejectable.**
  - B. **The corrective actions taken and the root cause determinations for any degradation found.**

**PSEG RESPONSE:**

During the Salem Unit 1 refueling outage (1R15) October 2002, a planned 100% bare-metal visual (BMV) 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 letter dated September 6, 2002 (LR-N02-0297) NRC Bulletin 2002-02.

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. 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.

Residual dye penetrant developer about selected canopy seal welds was reviewed against previous historical photographs and again was evaluated as no indication of reactor coolant system leakage.

In summary, a 100% BMV examination of the Salem Unit 1 reactor pressure head was performed during 1R15, October 2002. There was no evidence of boric acid leakage detected.