

March 21, 2005

Mr. William Levis
Senior Vice President &
Chief Nuclear Officer
PSEG Nuclear - X15
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NO. 2, REQUEST FOR
ADDITIONAL INFORMATION REGARDING STEAM GENERATOR TUBE
INSPECTION CONDUCTED DURING 2003 REFUELING OUTAGE
(TAC NOS. MC2264 AND MC2265)

Dear Mr. Levis:

By letters dated November 17, 2003, February 19, and March 19, 2004 (located in the Agencywide Documents Access and Management System (ADAMS) under accession numbers ML033290440, ML040620694, and ML040760608, respectively), PSEG Nuclear LLC, the licensee for Salem Nuclear Generating Station, Unit No. 2 (Salem), submitted reports summarizing the steam generator tube inspections conducted at Salem during the 2003 refueling outage. Additionally, a summary of conference calls concerning these inspections are in ADAMS under accession number ML040800008.

The Nuclear Regulatory Commission staff has been reviewing the inspection results and analysis and has determined that additional information is required in order to complete our review. Please provide your response to the enclosed within 30 days from the date of this letter.

If you have any questions regarding this matter, please contact me at (301) 415-1494.

Sincerely,

/RA/

Daniel S. Collins, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-311

Enclosure: Request for Additional Information

cc w/encl: See next page

Salem Nuclear Generating Station, Unit Nos. 1 and 2

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Hancocks Bridge, NJ 08038

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ADDITIONAL INFORMATION REGARDING STEAM GENERATOR TUBE
INSPECTION CONDUCTED DURING 2003 REFUELING OUTAGE
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The Nuclear Regulatory Commission staff has been reviewing the inspection results and analysis and has determined that additional information is required in order to complete our review. Please provide your response to the enclosed within 30 days from the date of this letter.

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING STEAM GENERATOR TUBE INSPECTION CONDUCTED
DURING THE 2003 REFUELING OUTAGE
SALEM GENERATING STATION, UNIT NO. 2
DOCKET NO. 50-311

By letters dated November 17, 2003, February 19, and March 19, 2004 (located in the Agencywide Documents Access and Management System (ADAMS) under accession numbers ML033290440, ML040620694, and ML040760608, respectively), PSEG Nuclear LLC, the licensee for Salem Nuclear Generating Station, Unit No. 2 (Salem), submitted reports summarizing the steam generator (SG) tube inspections conducted at Salem during the 2003 (13th) refueling outage (2R13). Additionally, a summary of conference calls concerning these inspections are in ADAMS under accession number ML040800008.

The Nuclear Regulatory Commission staff has been reviewing the inspection results and analysis and has determined that the following additional information is required in order to complete our review.

1. A population of bobbin coil anti-vibration bar (AVB) wear indications were inspected with a rotating probe. These examinations verified that the reported indications displayed a volumetric response and were not crack-like. Please clarify the scope of the rotating probe examinations at locations with AVB wear. That is, of the 601 AVB wear indications detected during 2R13, how many were inspected with a rotating probe?
2. Provide and discuss the results of your rotating probe examinations performed at the dents and the U-bend regions of the tubes.
3. On page 8 of Enclosure 4 to your February 19, 2004 letter, it was indicated that nine tubes in SG 23 were preventively plugged due to small anomalous signals. This statement matches data in the table on page 3 of Enclosure 4 to your February 19, 2004 letter. However, the table on page 8 indicates that eight tubes in SG 23 and one tube in SG 24 had anomalous signals. Please clarify.
4. Several crack-like indications have been found at dented locations during recent inspections at Salem Unit No. 2. Both axially and circumferentially-oriented crack-like indications have been detected. As of refueling outage 12, there were approximately 21,000 dents at tube supports and approximately 900 dings in the free span portion of the tube. Of the 21,000 dents, approximately 33% were greater than 5 volts. Of the 900 dings, approximately 19% are greater than 5 volts. During 2R13, not all dents or dings greater than 5 volts were inspected with a rotating probe, although all dents at the lower tube supports greater than 1 volt on the hot-leg were inspected. Given that (1) temperature and stress affect a tube's susceptibility to cracking (i.e., a larger dent at a lower temperature may be as susceptible to stress corrosion cracking as a smaller dent at a higher temperature), and (2) that the bobbin coil is not considered qualified for detecting degradation at dented/dinged locations when the dent/ding exceeds 5 volts,

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please discuss the basis for concluding that the structural and leakage integrity performance criteria were met during Cycle 13 and will continue to be met throughout subsequent cycles.

Include in this response how the integrity of dented/dinged locations exceeding 5 volts that were not inspected with a rotating probe during 2R13 were assessed. These locations potentially have undetected degradation that may have been growing since the last rotating probe inspection. Provide the technical basis for any assumptions in your analysis.

Enclosure