



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 26, 2011

LICENSEE: PSEG Nuclear, LLC

FACILITY: Salem Nuclear Generating Station, Units 1 and 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON
DECEMBER 13, 2010, BETWEEN THE U.S. NUCLEAR REGULATORY
COMMISSION AND PSEG NUCLEAR, LLC, CONCERNING DRAFT
REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE SALEM
NUCLEAR GENERATING STATION, UNITS 1 AND 2, LICENSE RENEWAL
APPLICATION

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of PSEG Nuclear, LLC (the applicant), and Exelon held a telephone conference call on December 13, 2010, to discuss the applicant's draft response to the staff's draft requests for additional information (D-RAIs) B.2.1.22-03. The telephone conference call was useful in clarifying the intent of the applicant's D-RAI response.

Enclosure 1 provides a listing of the participants, Enclosure 2 contains a brief summary of the discussion, and Enclosure 3 includes the applicant's table of their proposed response to the D-RAI.

The applicant had an opportunity to comment on this summary.

A handwritten signature in cursive script, appearing to read "Bennett M. Brady".

Bennett M. Brady, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-272 and 50-311

Enclosures:

1. List of Participants
2. Summary of meeting discussion
3. Applicant's table of draft response to the D-RAI

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TELEPHONE CONFERENCE CALL
SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
December 13, 2010

<u>PARTICIPANTS</u>	<u>AFFILIATIONS</u>
Bennett Brady	U.S. Nuclear Regulatory Commission (NRC)
David Pelton	NRC
William Holston	NRC
Samuel Cuadrado De Jesús	NRC
Dylan Cimock	Exelon
Michael Gallagher	Exelon
Peter Tamburro	Exelon
Al Fulvio	Exelon
Albert Piha	Exelon
John Hufnagel	Exelon
Michael Gallagher	Exelon
James Melchionna	PSEG Nuclear, LLC
Robert S. Montgomery	PSEG Nuclear, LLC

SUMMARY OF MEETING
ON DRAFT REQUEST FOR ADDITIONAL INFORMATION RESPONSES
FOR SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2,
LICENSE RENEWAL APPLICATION

DECEMBER 13, 2010

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of PSEG Nuclear, LLC (the applicant) held a telephone conference call on December 13, 2010, to discuss the applicant's draft response to the staff's draft requests for additional information (D-RAIs) B.2.1.22-03 concerning the Salem Nuclear Generating Station (Salem), Units 1 and 2, license renewal application Buried Piping Program.

During the meeting, the applicant discussed their Salem D-RAI response as outlined in Enclosure 3.

In conclusion, it was agreed that the staff would revise the order of the questions on D-RAI B.2.1.22-03 and send it as a formal RAI.

The NRC staff asked that the allowable general wall reduction for the compressed air system piping be included in the response.

ENCLOSURE 2

Salem Buried Pipe Draft RAI Discussion

Summary of Existing/Proposed Commitments and Inspection Coverages by System

		IF Soil Characterization Study Results = SATISFACTORY (resistivity values > 10,000 ohm-cm)		IF Soil Characterization Study Results = UNSATISFACTORY (resistivity values < 10,000 ohm-cm)
System	Buried Pipe Program Risk Ranking	# inspections each 10 year period <u>during PEO</u> ²	% of buried system addressed by end of PEO ³	# inspections each 10 year period <u>during PEO</u> ⁴
Auxiliary Feedwater	High	1	84%	2
Service Water	High	1	16.5% ⁵	2
Compressed Air	Low	1	18.5%	2
Total		3	33%	6

Notes:

1. # of inspections to be performed on the above systems during the 10 year period prior to entering PEO will remain as currently committed (1 inspection per system)
2. This represents the current commitment for the two 10 year periods during PEO.
3. Percentages of systems addressed are based only on the safety-related carbon steel portions of the respective systems and include activities such as inspection, replacement, rerouting of piping aboveground, and mitigation through backfilling with CLSM.
4. Additional inspections will be added on a system-by-system basis depending on the soil characterization results in the vicinity of the respective piping.
5. In addition to the 16.5% coverage by external inspections, Salem will be performing internal inspections of at least 3 inaccessible SW spools prior to PEO.

Auxiliary Feedwater (AFW):

- The following actions will have been performed prior to entering PEO on the original 600ft population of buried safety-related carbon steel AFW:
 - 125 ft. in the Unit 1 FTTA replaced and rerouted above ground
 - 125 ft. in the Unit 2 FTTA replaced and rerouted above ground
 - 175 ft. around the Unit 1 Containment Building replaced with new, coated pipe and backfilled in CLSM
 - 175 ft. around Unit 2 Containment Building will have approximately 50 ft. excavated and inspected during the Spring 2011 outage

Service Water (SW):

- There is approximately 60 ft. of safety-related carbon steel SW pipe in scope, composed of 28 wall penetrations and 4-1 ft. connections to Circ. Water discharge
 - Committed inspections will be performed at accessible locations of highest susceptibility based on soil characterization study.
 - 1 Unit 1 SW spool was inspected during 2010 outage (found in excellent condition), 2 Unit 2 SW spools are planned for inspection during the spring 2011 outage. Excavation locations were and are planned to be backfilled using CLSM.
 - At least 5 of the 8 accessible spools will be inspected over the 30 year period based on satisfactory soil results, otherwise, at least 7 of the 8 will be inspected over the 30 year period.
 - Internal inspections (using pulsed eddy current or other volumetric techniques) are conducted every Refueling Outage in order to assess high risk ranked, inaccessible spools. 3 inaccessible spools will be internally inspected during the spring 2011 outage.

Compressed Air (CA):

- The following actions will have been performed prior to entering PEO on the original 1700ft population of buried safety-related carbon steel CA:
 - 175 ft. around the Unit 1 Containment Building inspected and backfilled in CLSM
 - 175 ft. around Unit 2 Containment Building will have approximately 50 ft excavated and inspected during the Spring 2011 outage
- Based on satisfactory results of the Soil Characterization Study, the existing commitment of one inspection is sufficient on the basis that:
 - All CA piping has a LOW risk ranking in the Buried Pipe Database.
 - Committed inspections will be performed at locations of highest susceptibility based on soil characterization study.

- The ~1100 ft. of CA piping that runs from the Aux. Building to Service Water Intake Structure (SWIS) is located relatively shallow (<5 ft. below grade), such that it is not subject to aggressive ground water.
- The in-scope safety-related CA piping is composed of 1" and 1.5" lines with low operating temperatures/pressures and high pipe wall thickness design margins; such that the piping can maintain system pressure boundary with ~96% localized wall loss.

Cathodic Protection

- Cathodic Protection Study
 - Recognizing the importance and benefits of a cathodic protection system, **Salem will commit to perform a Cathodic Protection Study prior to entering PEO** in order to assess the viability and benefits of installing a protective system, versus other mitigative and preventive actions.

Salem Soil Characteristics

Known Values

- Soil sampling results from five separate excavation locations over the last 2 years has shown the soil to be in good condition.
 - Ave. resistivity value: 31,500 ohm-cm
 - Ave. pH values: 7.3
- Existing backfill within at least 6" of piping has been visually verified to be controlled and consistent with NACE SP0169-2007 and ASTM D 448-8, such that the characteristics of material in direct contact with buried piping is of a better nature than backfill throughout the rest of the site.
- Following inspection of buried pipes, excavated trenches are typically backfilled with CLSM.

Actions to be taken prior to PEO

- Soil Characterization Study
 - **Salem will commit to perform a site soil characterization study prior to entering PEO** in order to obtain greater information on the overall condition and corrosiveness of its soil. The study will concentrate on parameters such as:
 - soil composition
 - pH
 - soil resistivity

This information will be used to inform inspections at the highest susceptible locations.

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/RA/
Bennett M. Brady, Project Manager
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OFFICE	LA:DLR	PM:RPB1:DLR	BC:RPB1:DLR	PM:RPB1:DLR
NAME	YEdmonds	BBrady	BPham	BBrady
DATE	1/07/11	1/25/11	1/26/11	1/26/11

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Memorandum to PSEG Nuclear, LLC from B. Brady, dated January 26, 2011

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