



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

August 18, 2010

LICENSEE: PSEG Nuclear, LLC

FACILITY: Salem Nuclear Generating Station, Unit 1 and Unit 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON AUGUST 4, 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 August 4, 2010, to discuss and clarify the staff's draft requests for additional information (D-RAIs) concerning the Salem Nuclear Generating Station, Unit 1 and Unit 2, license renewal application. The telephone conference call was useful in clarifying the intent of the staff's D-RAIs.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a brief summary of the discussion and status of the items. Talking points for the meeting from the applicant and the staff are in Enclosure 3 and 4, respectively.

The applicant had an opportunity to comment on this summary.

A handwritten signature in black ink, 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. Talking points for meeting provided by the applicant
4. Talking points for meeting provided by NRC

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TELEPHONE CONFERENCE CALL
SALEM NUCLEAR GENERATING STATION
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
August 4, 2010

PARTICIPANTS

AFFILIATIONS

Bennett Brady	U.S. Nuclear Regulatory Commission (NRC)
William Holston	NRC
David Alley	NRC
Bo Pham	NRC
Arthur Cunanan	NRC
Samuel Cuadrado De Jesus	NRC
John Hufnagel	Exelon
Al Fulvio	Exelon
Albert Piha	Exelon
Ali Fakhar	PSEG Nuclear, LLC (PSEG)
Jim Melchionna	PSEG
Pete Tamburro	Exelon
Jim Stavely	PSEG
Dylan Cimock	Exelon
Gene Kelly	Exelon
Matt Murray	PSEG
Chris Wilson	Exelon
Paul Cervenka	Exelon

SUMMARY MEETING ON THE DRAFT REQUESTS FOR ADDITIONAL INFORMATION
FOR SALEM NUCLEAR GENERATING STATION, UNIT 1 AND UNIT 2, LICENSE RENEWAL
APPLICATION

AUGUST 4, 2010

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of PSEG Nuclear, LLC held a telephone conference call on August 4, 2010, to discuss and clarify the draft request for additional information (D-RAI) 2.1.22 concerning the Salem Nuclear Generating Station, Unit 1 and Unit 2, license renewal application Buried Piping Program.

During the discussion, the PSEG discussed their proposed Buried Piping Program as outlined in the talking points in Enclosure 3. The NRC staff followed the discussion with their questions presented in Enclosure 4.

In conclusion, it was agreed that the staff would send the D-RAI as a formal RAI with one minor edit. The staff also suggested that the applicant consider the following discussion in its response:

1. cathodic protection and measures of the availability of the cathodic protection
2. plans for maintaining buried pipes during the period from 10 to 20 years into the period of extended operation
3. revisions to the Final Safety Analysis Report supplement and a commitment list to clarify the number of inspections to be performed

ENCLOSURE 2

Talking Points for August 4, 2010 Discussion Provided by the Applicant

Summary of Salem(SGS) and Hope Creek(HC) Buried Pipe Program (BPP)

- Comprehensive, robust, and mature program that is consistent with GALL Rev. 1
- Manages aging effects for 7 (Salem) and 3 (Hope Creek) in scope systems, as well as 33 additional systems not in scope
- PSEG has committed to 22 direct excavations and inspections in the original LRAs submitted on 8/19/2009
 - 11 inspections performed within the 10 years prior to entering the PEO
 - 11 inspections performed within the 10 years following entry into the PEO
 - 10 inspections are based on each pipe material present for in scope buried systems (4 for Salem, 6 for Hope Creek)
 - One additional inspection is scheduled for the Salem stainless steel fuel transfer tube bellows and the associated carbon steel penetration sleeves
 - These inspections exceed the GALL Rev. 1 requirements

Risk Ranking

- The initial risk ranking process for the BPP has been completed
- 12,000 buried and underground pipe segments are risk ranked (SGS & HC)
- Ranks segments to allow ordered scheduling of direct and indirect inspections
- Specific inspections for LR will drive excavations for coating and piping visual inspections
- Off normal findings are entered into the Corrective Action Program (CAP)

NEI Initiative/EPRI

- NEI has recognized that additional resources, structure, guidance, and integration may be required to avoid new industry events
- PSEG is participating in the NEI Industry Initiative
- PSEG BPP personnel are participating in the EPRI Buried Piping Integrity Group (BPIG)

Results

- Currently ahead of schedule with commitments to NEI Industry Initiative
- No installed age-related coating failures or pipe corrosion failures on in scope systems resulting in a loss of intended function
- In 2009 and 2010 the BPP performed direct inspections on 5 of the 7 in scope systems for Salem and 2 of 3 in scope systems for Hope Creek. This includes representative sections from all high risk in scope systems for Salem (SW, AFW & Non-radioactive Drain) and 1 high risk in scope system for Hope Creek (FP).
- During the 2010 Salem Unit 1 outage, portions of the buried carbon steel AF lines were excavated to provide access for guided wave (GW) examinations based on high risk ranking. Upon excavation, pipes were found to be missing coating and significantly degraded. Full excavation, GW and UT results showed wall loss along the entire length of pipe resulting in the decision to replace the lines entirely. The portions of the AF lines buried inside the fuel transfer tube area (FTTA) were replaced and rerouted above ground. The cause of the degradation was due to a lack of coating and is believed to be an isolated incident where coating was physically removed in error during original construction. Extent of condition examined 2 CA and 2 SA lines running parallel to the AF lines, both found coated and wrapped. Accessible area inside the Unit 2 FTFA was also inspected as part of

the extent of condition and AF lines were found to be coated. Excavation and inspection of the outside buried portion of the Unit 2 lines is scheduled for next refueling outage.

The Future

- The PSEG BPP will use the existing program inspection results, industry operating experience and the risk ranking methodology as input and guidance in identifying the additional 11 excavation and inspection locations required as LRA commitments
- The enhanced program will provide reasonable assurance that loss of material aging effect will be adequately managed so that the intended function of components within the scope of license renewal will be maintained consistent with the CLB during the PEO

Talking Points for August 4, 2010 Discussion Provided by the Staff

- Hope Creek Generating Station (Hope Creek) has six material types (i.e., steel, galvanized steel, ductile cast iron, gray cast iron, stainless steel, reinforced concrete). However, for the Buried Non-Steel Program the aging management program (AMP) does not state one inspection per material type. For the Buried Steel Piping Program, the Final Safety Analysis Report (FSAR) supplement and commitment is not as clear as the program in regard to inspecting each material type in the 30 – 40 year time frame. For the Buried Non Steel Piping Program, the FSAR supplement and commitment list is very clear on the number of inspections.
- Salem Nuclear Generating Station (Salem) has four material types (i.e., steel, ductile cast iron, gray cast iron, reinforced concrete). As noted below, Salem also has the stainless steel fuel transfer bellows tube and steel penetrations. There could be some ambiguity in relation to would a reinforced concrete inspection meet the requirement with no need to inspect the fuel transfer bellows in the AMP. For the Buried Steel Piping Program, the FSAR supplement and commitment is not as clear as the program in regard to inspecting each material type in the 30 – 40 year time frame. For the Buried Non Steel Piping Program, the FSAR supplement and commitment list is very clear on the number of inspections.
- Will Hope Creek and Salem change their license renewal application Programs, UFSAR Supplement and commitments to in each case clearly reflect an inspection for each material type in the Buried Non Steel Piping Program?
- During the direct excavations and inspections, what length of pipe be exposed? Will 360 degrees around the pipe be exposed?
- What piping systems are cathodically protected?
- If applicable, what is the condition of the cathodic protection and what is the testing history?
- Will Salem/Hope Creek commit to perform the same number of inspections in the 50 – 60 year time frame?

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/RA/

Bennett M. Brady, Project Manager
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Memorandum to PSEG Nuclear, LLC from B. Brady, dated August 18, 2010

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