

September 2, 2014

MEMORANDUM TO: Sheena A. Whaley, Chief
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

FROM: Juan F. Uribe, Project Manager */RA by Nicholas DiFrancesco for/*
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE JUNE 12, 2014, CATEGORY 1 PUBLIC MEETING WITH SALEM NUCLEAR GENERATING STATION, UNITS 1 AND 2 TO DISCUSS SEISMIC HAZARD REEVALUATIONS ASSOCIATED WITH IMPLEMENTATION OF JAPAN LESSONS-LEARNED NEAR-TERM TASK FORCE RECOMMENDATION 2.1.

On June 12, 2014, the U.S. Nuclear Regulatory Commission (NRC or the staff) held a Category 1 public meeting¹ with PSEG Nuclear, LLC (PSEG, the licensee) for Salem Nuclear Generating Station, Units 1 and 2 (Salem). The purpose of this meeting was to discuss issues resulting from the staff's screening and prioritization of Salem relating to Enclosure 1, *Recommendation 2.1: Seismic*, issued on March 12, 2012, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights From the Fukushima Dai-Ichi Accident."² By letter dated May 9, 2014,³ the NRC staff categorized Salem, as a "conditional screen in", prioritization group 3 plant with a risk evaluation due by December 31, 2020, based on the staff's screening review. By memo dated May 21, 2014, the NRC staff documented their preliminary Ground Motion Response Spectra (GMRS) curve in comparison to all licensee GMRS curves along with the plant's Safe Shutdown Earthquake (SSE) and Individual Plant Examination of External Events (IPEEE) High Confidence Low Probability of Failure (HCLPF) Spectra, also known as the IHS (IPEEE HCLPF Spectra). The public meeting supported an information exchange and understanding of engineering differences to achieve subsequent technical resolution.

To facilitate the discussion, the NRC staff and PSEG representatives presented⁴ the engineering details on the modeling inputs used to develop GMRS curves. The meeting highlights included:

¹ The original meeting notice is available via the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML14163A126.

² The 50.54(f) letter and Enclosure 1 are available under ADAMS Accession Nos. ML12053A340 and ML12056A047.

³ The May 9, 2014 letter is available in ADAMS under Accession No. ML14111A147.

⁴ The NRC and PSEG slides can be found in ADAMS under Accession Nos. ML14162A440 and ML14162A432.

- NRC and licensee discussed differences in methods used to calculate kappa (i.e. soil seismic energy damping)
- NRC and licensee discussed differences in velocity profiles, available onsite data, and modeling epistemic uncertainties represented in the profiles
- Based on interactions the NRC staff would consider licensee information and develop a request for additional information (RAI) to resolve differences

In summary, the NRC staff stated that the primary differences between the NRC staff and licensee GMRS curves appear to result from:

- The different treatment of damping from the Potomac Group soil formation
- Total kappa value used
- Total amount of base cases used in the analysis (the licensee used 3 and the NRC used 1)

Finally, the NRC staff stated that a follow up RAI may be issued to document the licensee's technical basis and background information, as well as any other clarifications associated with the information presented at the meeting.

No regulatory decisions or commitments were made during the meeting. The public was invited to observe the meeting and was given several opportunities to communicate with the NRC during the public meeting and before adjourning. The NRC staff received no public comments and no meeting feedback forms.

CONTACT: Juan F. Uribe, NRR/JLD/JHMB
301-415-3809

Docket Nos. 50-272 and 50-311

Enclosure:
List of Attendees

- NRC and licensee discussed differences in methods used to calculate kappa (i.e. soil seismic energy damping)
- NRC and licensee discussed differences in velocity profiles, available onsite data, and modeling epistemic uncertainties represented in the profiles
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ADAMS Accession No.: ML14167A159

*Concurrence via e-mail

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DATE	09/02/14	09/02/14	09/02/14	09/02/14

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List of Attendees
U.S. Nuclear Regulatory Commission
Public Meeting with Salem Nuclear Generating Station, Units 1 and 2
Concerning Seismic Hazard Reevaluation Submittals
Japan Lessons-Learned Near-Term Task Force Recommendation 2.1: Seismic
June 12, 2014

Name	Organization		Name	Organization
Jon Ake	NRC/RES/DE		Charlotte Geiger	PSEG
Cliff Munson	NRC/NRO/DSEA		Craig Swanner	MPR Associates
Diane Jackson	NRC/NRO/DSEA		John Richards	EPRI
Nicholas DiFrancesco	NRC/NRR/JLD		Lisa Walsh	NRC/NRO/DSEA
Kamal Manoly	NRC/NRR/DE		Ricardo Rodriguez	NRC/NRO/DSEA
Yong Li	NRC/NRR/DE		Zuhan Xi	NRC/NRO/DSEA
Brittain Hill	NRC/NRO/DSEA		Dogan Seber	NRC/NRO/DSEA
John Boska	NRC/NRR/JLD		David Heeszal	NRC/NRO/DSEA
Mahmoud Jardaneh	NRC/NRO/DSEA		Scott Stoval	NRC/RES/DE
Donnie Harrison	NRC/NRO/DSRA		Thomas Weaver	NRC/RES/DE
Stephanie Devlin	NRC/NRO/DSEA		Rob Kuntz	NRC/NRR/JLD
Rasool Anooshehpour	NRC/RES/DE		Jana Bergman	Curtis Wrights
Juan Uribe	NRC/NRR/JLD		Richard Rogalaski	Energy Northwest
Michael Balazik	NRC/NRR/JLD		Michael Dschida	American Electric Power (AEP)
Andrew Mauer	NEI		Anders Gilbertson	NRC/RES/DRA
Christopher Schwarz	PSEG		Jemie Dababneh	Rizzo Associates
Bill McTigue	PSEG		Kit Ng	Bechtel
Gary Ruf	PSEG		(continues to next page)	

Abbreviations:

DE - Division of Engineering
 DSEA - Division of Site Safety and Environmental Analysis
 DSRA - Division of Safety Systems & Risk Assessment
 IPT - International Program Team
 JLD - Japan Lessons-Learned Division
 NRO - Office of New Reactors
 NRR - Office of Nuclear Reactor Regulation
 RES - Office of Nuclear Regulatory Research
 NEI - Nuclear Energy Institute

Enclosure

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