PSEG Nuclear LLC
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PSEG
Nuclear LLC

10 CFR 50.54(f)

LR-N14-0042

MAR 11 2014

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Salem Generating Station Units 1 and 2
Renewed Facility Operating License Nos. DPR-70 and DPR-75
NRC Docket Nos. 50-272 and 50-311

Subject: PSEG Nuclear LLC's Response to Request for Information Regarding Flooding Aspects of Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident – Salem Generating Station Flood Hazard Reevaluation

References:

1. NRC letter, "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," dated March 12, 2012

2. NRC letter, "Prioritization of Response Due Dates for Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Flooding Hazard Reevaluations for Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated May 11, 2012

3. PSEG Letter LR-N13-0052, "Response to Request for Information Regarding Flooding Aspects of Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident – Hazard Reevaluation Report Extension Request," dated March 12, 2013

4. NRC Letter, "Salem Nuclear Generating Station, Unit Nos. 1 and 2 and Hope Creek Generating Station - Relaxation of Response Due Dates Regarding Flooding Hazard Reevaluations for Recommendation 2.1 of the Near-term Task Force Review of the Insights from the Fukushima Dai-ichi Accident," dated April 12, 2013

5. NRC Interim Staff Guidance JLD-ISG-2012-05, "Guidance for Performing the Integrated Assessment for External Flooding," Revision 0, dated November 30, 2012

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued a request for information (Reference 1) pursuant to 10 CFR 50.54(f) to PSEG Nuclear LLC (PSEG), associated with Near-Term Task Force (NTTF) Recommendation 2.1 for flooding. The 10 CFR 50.54(f) letter included a request for licensees under 10 CFR Part 50 to reevaluate the flood hazards at their sites against present-day regulatory guidance and methodologies being used for Early Site Permit (ESP) and Combined License reviews. Enclosure 1 provides the requested flood hazard reevaluation for the Salem Generating Station (SGS) Units 1 and 2.

On May 11, 2012, the NRC issued a prioritization plan (Reference 2) that established an external flooding hazard reevaluation schedule for each licensee. The NRC's prioritization plan initially placed SGS in Category 1, establishing a flood hazard reevaluation due date of March 12, 2013, because SGS is co-located with an ESP site. As described in PSEG's extension request letter dated March 12, 2013 (Reference 3), changing NRC expectations regarding storm surge modeling methods prompted PSEG to reanalyze hurricane-related events in support of the ESP application. The storm surge reanalysis resulted in an impact to the SGS flood hazard reevaluation schedule. By letter dated April 12, 2013 (Reference 4), the NRC approved PSEG's request to extend the SGS flood hazard reevaluation submittal due date to March 12, 2014.

Table 3-1 of Enclosure 1 contains a comparison of current licensing basis (CLB) flood hazards and reevaluated flood hazards at SGS Units 1 and 2. The reevaluated flood hazards are not bounded by the CLB for the following considerations:

- Local Intense Precipitation (LIP) - The CLB does not include an expected flooding event due to LIP and no triggers currently exist to close watertight doors prior to a LIP event. The maximum flood level for the reevaluated LIP event is 102 ft, Public Service Datum (PSD), which is below the flood protected elevations at SGS Units 1 and 2. Grade elevation at SGS Units 1 and 2 is approximately 99.5 ft PSD. Section 4.1 of Enclosure 1 includes recommended interim actions to integrate severe weather forecast guidance specifically for a LIP event into existing operating procedures for closing watertight doors. PSEG will incorporate this guidance into operating procedures by December 31, 2014.

- Storm Surge Associated Effect (Debris Loads) – Safety-related structures at SGS are designed to withstand severe design loadings based on extreme external hazard conditions. These include seismic effects, tornado loads, hurricane wind, and hydrodynamic loads. However, the CLB for safety-related structures does not require evaluation of the effects of waterborne debris impacts during a storm surge event. By December 31, 2014, PSEG will evaluate the capability of flood protection features to withstand the effects of debris impact associated with the reevaluated storm surge event, based on the recommended interim actions in Section 4.2 of Enclosure 1.
- Storm Surge Associated Effect (Warning Time) - The river water level at which closure of watertight doors is initiated and the mission time to complete closure of the doors do not bound the reevaluated storm surge event. By December 31, 2014, PSEG will reassess the conditions for closure of watertight doors and make any necessary changes to operating procedures, based on the recommended interim actions in Section 4.2 of Enclosure 1.

In accordance with the 10 CFR 50.54(f) letter, PSEG will perform an integrated assessment to address the reevaluated LIP event and storm surge associated effects, using NRC Interim Staff Guidance JLD-ISG-2012-05 (Reference 5). PSEG will transmit the integrated assessment to the NRC by March 11, 2016.

There are regulatory commitments contained in this letter as identified in Enclosure 2.

If you have any questions or require additional information, please do not hesitate to contact Mr. Brian Thomas at 856-339-2022.

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

Executed on 3/11/14
(Date)

Sincerely,

John F. Perry
Site Vice President
Salem Generating Station

Enclosures:

1. Salem Generating Station Flood Hazard Reevaluation
2. Summary of Commitments

cc: Mr. E. Leeds, Director of Office of Nuclear Reactor Regulation
Mr. W. Dean, Administrator, Region I, NRC
Mr. J. Hughey, Project Manager, NRC
NRC Senior Resident Inspector, Salem
Mr. P. Mulligan, Manager IV, NJBNE
Salem Commitment Tracking Coordinator
PSEG Corporate Commitment Coordinator

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Enclosure 1

Salem Generating Station Flood Hazard Reevaluation

Salem Generating Station Units 1 and 2
PSEG Nuclear LLC

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Enclosure 2

Summary of Commitments

Commitment	Committed Date or Milestone	Commitment Type	
		One-Time Action (Yes/No)	Programmatic (Yes/No)
1. PSEG will integrate severe weather forecast guidance specifically for a Local Intense Precipitation event into existing operating procedures for closing watertight doors based on the recommended interim actions in Section 4.1 of Enclosure 1.	December 31, 2014	Yes	No
2. PSEG will evaluate the capability of flood protection features to withstand the effects of debris impacts associated with the reevaluated storm surge event based on the recommended interim actions in Section 4.2 of Enclosure 1.	December 31, 2014	Yes	No
3. PSEG will reassess the conditions for closure of watertight doors and make any necessary changes to operating procedures, based on the recommended interim actions in Section 4.2 of Enclosure 1.	December 31, 2014	Yes	No
4. PSEG will perform an integrated assessment of the Local Intense Precipitation event and storm surge associated effects using NRC Interim Staff Guidance JLD-ISG-2012-05 Revision 0, "Guidance for Performing the Integrated Assessment for External Flooding." PSEG will transmit the integrated assessment to the NRC by the committed date.	March 11, 2016	Yes	No