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DEC 12 2016

Order EA-12-049

LR-N16-0121

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

Hope Creek Generating Station
Renewed Facility Operating License No. NPF-57
NRC Docket No. 50-354

Subject: PSEG Nuclear LLC's NEI 12-06, Appendix H, Revision 2, H.4.2 Path 2: GMRS < SSE with High Frequency Exceedances, Mitigating Strategies Assessment (MSA) Report for the New Seismic Hazard Information

References:

1. NEI 12-06, Revision 2, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," December 2015 (ADAMS Accession No. ML16005A625)
2. JLD-ISG-2012-01, Revision 1, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," January 22, 2016, (ADAMS Accession No. ML15357A163)
3. PSEG Letter LR-N14-0035, "PSEG Nuclear LLC's Seismic Hazard and Screening Report (CEUS Sites) Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident - Hope Creek Generating Station," March 28, 2014 (ADAMS Accession No. ML14087A436)
4. NRC Letter, "Hope Creek Generating Station – Staff Assessment of Information Provided Pursuant to Title 10 of the Code of Federal Regulations Part 50, Section 50.54(f), Seismic Hazard Reevaluations for Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident and Staff Closure of Activities Associated with Recommendation 2.1, 'Seismic' (CAC No. MF3924)," February 29, 2016 (ADAMS Accession No. ML16049A609)
5. PSEG Letter LR-N15-0256, " High Frequency Supplement to Seismic Hazard Screening Report, Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," December 23, 2015 (ADAMS Accession No. ML15358A138)

6. NRC Letter, "Staff Review of High Frequency Confirmation Associated with Reevaluated Seismic Hazard in Response to March 12, 2012 50.54(f) Request for Information," February 18, 2016 (ADAMS Accession No. ML15364A544)
7. EPRI 3002004396, Final Report, "High Frequency Program Application Guidance for Functional Confirmation and Fragility Evaluation," July 2015 (ADAMS Accession No. ML15223A102)
8. NRC Letter, Endorsement of Electric Power Research Institute Final Draft Report 3002004396, "High Frequency Program: Application Guidance for Functional Confirmation and Fragility," September 17, 2015 (ADAMS Accession No. ML15218A569)

The purpose of this letter is to provide the results of the assessment for Hope Creek Generating Station (HCGS) to determine if the FLEX strategies developed, implemented and maintained in accordance with NRC Order EA-12-049 can be implemented considering the impacts of the reevaluated seismic hazard. The assessment was performed in accordance with the guidance provided in Appendix H of NEI 12-06 Revision 2 (Reference 1) which was endorsed by the NRC (Reference 2).

The Mitigating Strategies Seismic Hazard Information (MSSHI) is the licensee's reevaluated seismic hazard information at HCGS, developed using Probabilistic Seismic Hazard Analysis (PSHA). The MSSHI includes a performance-based Ground Motion Response Spectrum (GMRS), Uniform Hazard Response Spectra (UHRS) at various annual probabilities of exceedance, and a family of seismic hazard curves at various frequencies and fractiles developed at the HCGS control point elevation. HCGS submitted the reevaluated seismic hazard information including the UHRS, the GMRS, and the hazard curves to the NRC on March 28, 2014 (Reference 3). The NRC staff concluded that the GMRS that was submitted adequately characterizes the reevaluated seismic hazard for the HCGS site (Reference 4).

Consistent with Section H.4.2 of Reference 1, the HCGS GMRS is bounded by the Safe Shutdown Earthquake (SSE) spectrum at frequencies between 1 to 10 Hz and the GMRS spectrum above 10 Hz exceeds the SSE spectrum. References 5 and 6 provide the high frequency confirmation assessment that was performed for HCGS and NRC concurrence, respectively. For HCGS, the GMRS to SSE exceedance at frequencies greater than 10 Hz qualifies as a minimal high frequency exceedance defined in Section 3.1.2 of EPRI 3002004396 (Reference 7), as endorsed by NRC (Reference 8), and is considered inconsequential. Therefore, the FLEX strategies for HCGS can be implemented as designed and no further seismic evaluations are necessary.

There are no regulatory commitments contained within this letter.

Should you have any questions regarding this submittal, please contact Mr. Lee Marabella at 856-339-1208.

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

Executed on 12/12/2016

Sincerely,

Eric Carr
Site Vice President
Hope Creek Generating Station

cc: Mr. Daniel Dorman, Administrator, Region I, NRC
Ms. Carleen J. Parker, Project Manager, NRC
Mr. Nicholas DiFrancesco, Project Manager, NRC
Mr. Justin Hawkins, NRC Senior Resident Inspector, Hope Creek
Mr. Patrick Mulligan, Chief, NJBNE
Mr. Thomas MacEwen, Hope Creek Commitment Tracking Coordinator
Mr. Lee Marabella, PSEG Corporate Commitment Coordinator

(The bcc list should not be submitted as part of the DCD submittal - remove this page prior to submittal and make the bee distribution accordingly)

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