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RBG-47706

August 31, 2016

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

Subject: Seismic Mitigating Strategies Assessment Report
River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47

RBFB1-16-0099

References:

1. NEI 12-06, Revision 2, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, December 2015, ADAMS Accession Number 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, February 2016, ADAMS Accession Number ML15357A163
3. Entergy Operations Inc., River Bend Station Unit 1, Seismic Hazard and Screening Report (CEUS Sites), Response 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, March 26, 2014, ADAMS Accession Number ML14091A426.
4. NRC Letter, River Bend Station Unit 1- 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, dated November 3, 2015, ADAMS Accession Number ML15295A186.
5. Entergy Operations Inc., River Bend Station Unit 1, 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 8, 2015, ADAMS Accession Number ML16005A088.
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 Number ML15364A544
7. EPRI 3002004396, Final Report, July 2015, High Frequency Program Application Guidance for Functional Confirmation and Fragility Evaluation
8. NRC Letter, Endorsement of Electric Power Research Institute Final Draft Report 3002004396, "High Frequency Program: Application Guidance for Functional Confirmation and Fragility", dated September 17, 2015, ADAMS Accession Number ML15218A569

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NRR

Dear Sir or Madam:

The purpose of this letter is to provide the results of the assessment for River Bend Station – Unit 1 (RBS) 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 re-evaluated 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 re-evaluated seismic hazard information for RBS, and was 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 RBS control point elevation. RBS submitted the re-evaluated seismic hazard information, including the UHRS, GMRS and the hazard curves to the NRC on March 26, 2014 (Reference 3). The NRC staff concluded that the submitted GMRS adequately characterizes the re-evaluated seismic hazard for the RBS site (Reference 4).

Consistent with Section H.4.2 of Reference 1, the RBS GMRS is bounded by (or with negligible GMRS exceedance) the safe shutdown earthquake (SSE) spectrum at frequencies between 1 to 10 Hz, and the GMRS spectrum above 10 Hz exceeds the SSE spectrum. Reference 5 provided the high-frequency confirmation assessment, and Reference 6 documented NRCs concurrence. For RBS, the GMRS to SSE exceedance at frequencies greater than 10 Hz qualifies as a minimal high frequency exceedance, as defined in Section 3.1.1 of EPRI 3002004396 (Reference 7) and endorsed by NRC (Reference 8), and is considered inconsequential. Therefore, the FLEX strategies for RBS can be implemented as designed and no further seismic evaluations are necessary.

This letter contains no new regulatory commitments or any revisions to existing commitments. Should you have any questions regarding this submittal, please contact Mr. Sergio Vazquez at 225-381-4114.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 31, 2016.

Sincerely,



WFM / dhw

cc: U. S. Nuclear Regulatory Commission
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