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OCAN121603

December 30, 2016

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: High Frequency Supplement to Seismic Hazard Screening Report
Arkansas Nuclear One – Units 1 and 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6

Dear Sir or Madam:

On March 12, 2012, the NRC issued Reference 1 to all power reactor licensees. The required response section of Reference 1, Enclosure 1, indicated that licensees should provide a Seismic Hazard Evaluation and Screening Report within 1.5 years from the date of the letter for Central and Eastern United States nuclear power plants. By NRC letter dated May 7, 2013 (Reference 2), the date to submit the report was extended to March 31, 2014. The seismic hazards reevaluation submittal for Arkansas Nuclear One Units 1 (ANO-1) and 2 (ANO-2) was provided by Reference 5 on March 28, 2014.

By Reference 6, the NRC transmitted the results of the screening and prioritization review of Reference 5. In accordance with the Screening, Prioritization, and Implementation Details Report and Augmented Approach Guidance (References 2, 3, and 4), the reevaluated seismic hazard is used to determine if additional seismic risk evaluations are warranted for a plant. Specifically, the reevaluated horizontal ground motion response spectrum at the control point elevation was compared to the Individual Plant Examination for External Events High Capacity Low Probability of Failure Spectrum (IHS) to determine if the plant is required to perform a high frequency evaluation (HFE). As noted in Reference 6, a limited scope HFE is to be conducted for ANO-1 and ANO-2.

In Reference 6, the NRC acknowledged that these limited scope evaluations would require additional development of the assessment process. By Reference 7, NEI submitted EPRI Report 3002004396 for NRC review, and NRC endorsement was provided by Reference 8.

To address high frequency exceedance above the IHS, an evaluation of high frequency motion sensitive components (relays) has been conducted in accordance with the guidance in EPRI Report 3002004396 (Reference 7). The enclosed HFE confirmed that the applicable devices in

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the EPRI seismic margins assessment methodology scope are acceptable for the high frequency motions at both ANO-1 and ANO-2. Reliance on post-event operator actions was necessary to resolve outliers. A summary of the operator actions and associated outliers is provided in the enclosure to this letter. This submittal completes the limited scope HFE for ANO.

This letter contains no new regulatory commitments. Should you have any questions regarding this submittal, please contact Stephenie Pyle at 479.858.4704.

I declare under penalty of perjury that the foregoing is true and correct; executed on December 30, 2016.

Sincerely,



for

RLA/nbm

Enclosure: Arkansas Nuclear One HFE – High Frequency Confirmation Report

REFERENCES:

1. NRC Letter to Entergy, *Request for Information Pursuant to 10CFR 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 (OCNA031208) (ML12053A340)
2. NRC Letter to Nuclear Energy Institute (NEI), *Electric Power Research Institute Final Draft Report XXXXXX, Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic, as an Acceptable Alternative to the March 12, 2012, Information Request for Seismic Reevaluations*, dated May 7, 2013 (ML13106A331) (EPRI Report 3002000704)
3. NEI Letter to NRC, *Final Draft of Industry Seismic Evaluation Guidance (EPRI 1025287)*, dated November 27, 2012 (ML12333A168 and ML12333A170)
4. NRC Letter to NEI, *Endorsement of Electric Power Research Institute Final Draft Report 1025287, Seismic Evaluation Guidance*, dated February 15, 2013 (ML12319A074)
5. Entergy letter to NRC, *Seismic Hazard and Screening Report (Central Eastern United States 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*, dated March 28, 2014 (OCAN031404) (ML14092A021)

6. NRC Letter to Entergy, *Final Determination of Licensee Seismic Probabilistic Risk Assessments Under the Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 "Seismic" of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident*, dated October 27, 2015, (0CNA101505) (ML15194A015)
7. NEI Letter to NRC, *Request for NRC Endorsement of High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation (EPRI Report 3002004396)*, dated July 30, 2015 (ML15223A100)
8. NRC Letter to NEI, *Endorsement of EPRI Final Draft Report 3002004396, High Frequency Program: Application Guidance for Functional Confirmation and Fragility*, dated September 17, 2015 (ML15218A569)

cc: Mr. Kriss Kennedy
Regional Administrator
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Enclosure to

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Arkansas Nuclear One HFE – High Frequency Confirmation Report