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W3F1-2015-0077

December 16, 2015

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

Subject: High Frequency Supplement to Seismic Hazard Screening Report, 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
Waterford Steam Electric Station, Unit 3 (Waterford 3)
Docket No. 50-382
License No. NPF-38

- 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 (ADAMS Accession Number ML12053A340)
 2. NRC Letter, Electric Power Research Institute Report 3002000704, "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 (ADAMS Accession Number ML 13106A331)
 3. NEI Letter, Final Draft of Industry Seismic Evaluation Guidance (EPRI 1025287), dated November 27, 2012, (ADAMS Accession Number ML12333A168 and ML12333A170)
 4. NRC Letter, Endorsement of Electric Power Research Institute Final Draft Report 1025287, "Seismic Evaluation Guidance", dated February 15, 2013, (ADAMS Accession Number ML12319A074)
 5. Entergy Letter to NRC, "Entergy 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," dated March 27, 2014 (W3F1-2014-0023) (ADAMS Accession Number ML14086A427)

6. NRC Letter, Screening and Prioritization Results Regarding Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Seismic Hazard Reevaluations for Recommendation 2.1 of the Near-Term Task Force Reviews of Insights from the Fukushima Dai-ichi Accident, dated May 9, 2014, (ADAMS Accession Number ML14111A147)
7. NEI Letter, Request for NRC Endorsement of High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation (EPRI 3002004396), dated July 30, 2015, (ADAMS Accession Number ML15223A100)
8. Electric Power Research Institute (EPRI), "High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation (EPRI 3002004396)", (ADAMS Accession Number ML15223A102)
9. 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)

Dear Sir or Madam:

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued a Request for Information per 10 CFR 50.54(f) (Reference 1) to all power reactor licensees. The required response section of 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 (CEUS) nuclear power plants. By NRC letter dated May 7, 2013 (Reference 2), the date to submit the report was extended to March 31, 2014.

By letter dated May 9, 2014 (Reference 6), the NRC transmitted the results of the screening and prioritization review of the seismic hazards reevaluation submittal for Waterford 3 (Reference 5). In accordance with the screening, prioritization, and implementation details report (SPID) 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 (GMRS) at the control point elevation is compared to the existing safe shutdown earthquake (SSE) or Individual Plant Examination for External Events (IPEEE) High Capacity Low Probability of Failure (HCLPF) Spectrum (IHS) to determine if a plant is required to perform a high frequency confirmation. As noted in the May 9, 2014 letter, Waterford 3 is to conduct a limited scope High Frequency Confirmation.

Within the May 9, 2014 letter (Reference 6), NRC acknowledged that these limited scope evaluations will require additional development of the assessment process. By Reference 7, Nuclear Energy Institute (NEI) submitted an Electric Power Research Institute (EPRI) report entitled, High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation (EPRI 3002004396) for NRC review and endorsement. NRC endorsement was provided by Reference 9.

The High Frequency Confirmation for Waterford 3 shows that the high-frequency spectral accelerations of the control point GMRS above 10Hz are consistent with the limits and example provided in Section 3.1.1 of Reference 8; therefore, no additional evaluation is necessary. The attachment to this letter provides the SSE and GMRS information from Reference 5 and the example provided in Section 3.1.1 of Reference 8

This transmittal completes the limited scope evaluation prescribed in Reference 6 for Waterford 3. This letter contains no new Regulatory Commitments.

Should you have any questions concerning the content of this letter, please contact John Jarrell, Regulatory Assurance Manager, at (504) 739-6685.

I declare under penalty of perjury that the foregoing is true and correct. Executed on December 16, 2015.

Sincerely,

A handwritten signature in black ink, appearing to read 'MRC/AJH', written in a cursive style.

MRC/AJH

Attachment: SSE and GMRS at Waterford 3 Steam Electric Station and Site A

cc: Mr. Mark L. Dapas, Regional Administrator
U. S. NRC, Region IV
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Attachment

W3F1-2015-0077

**SSE and GMRS at
Waterford 3 Steam Electric Station and Site A**

Figure 1 - SSE and GMRS at Site A (Section 3.1.1, Ref. 8)

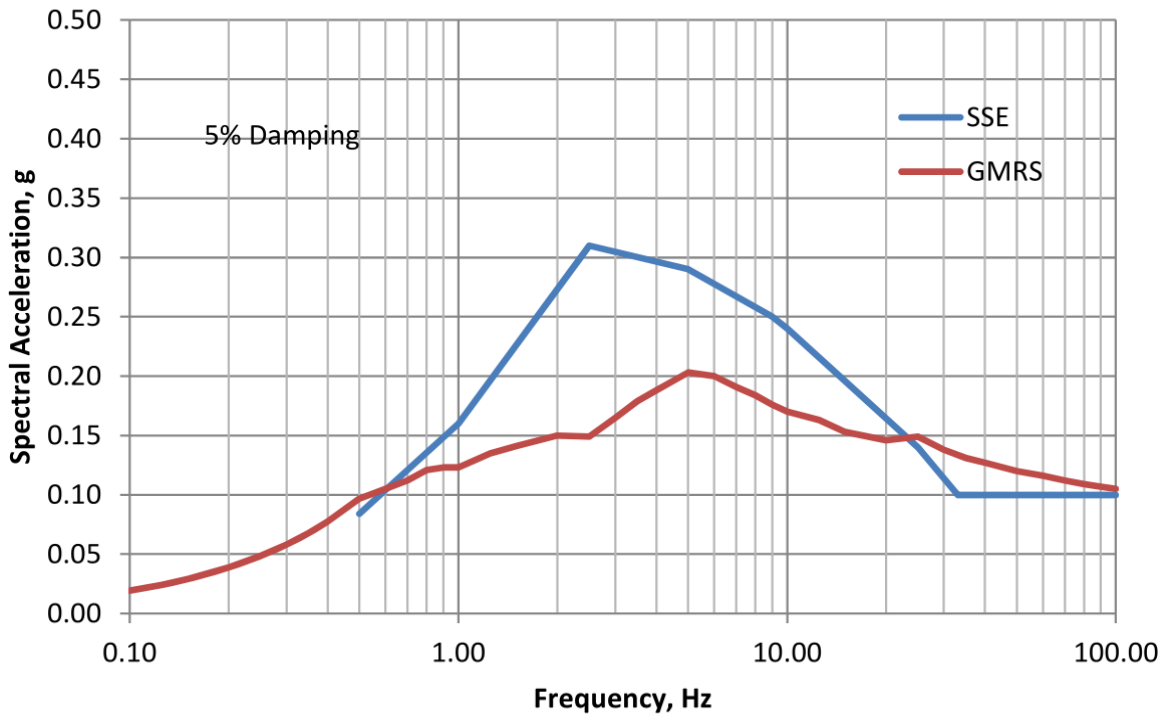


Figure 2 - SSE and GMRS at Waterford 3

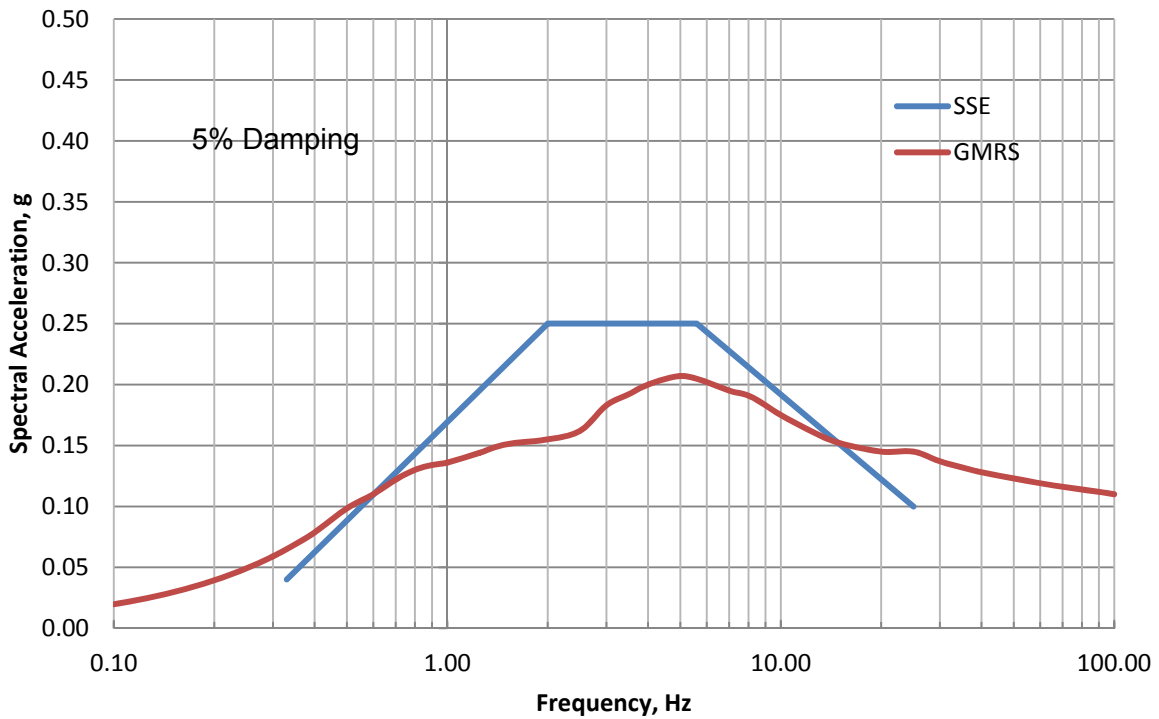


Table 1 - Coordinates for Figure 2

Frequency (Hz)	GMRS (g)	SSE (g)
100	1.10E-01	
90	1.12E-01	
80	1.14E-01	
70	1.16E-01	
60	1.19E-01	
50	1.23E-01	
40	1.28E-01	
35	1.32E-01	
30	1.37E-01	
25	1.45E-01	1.00E-01
20	1.45E-01	
15	1.52E-01	
12.5	1.61E-01	
10	1.75E-01	
9	1.83E-01	
8	1.91E-01	
7	1.95E-01	
6	2.02E-01	
5.6		2.50E-01
5	2.07E-01	
4	2.00E-01	
3.5	1.92E-01	
3	1.83E-01	
2.5	1.62E-01	
2	1.55E-01	2.50E-01
1.5	1.51E-01	
1.25	1.44E-01	
1	1.36E-01	
0.9	1.34E-01	
0.8	1.30E-01	
0.7	1.22E-01	
0.6	1.10E-01	
0.5	9.84E-02	
0.4	7.87E-02	
0.35	6.89E-02	
0.33		0.40E-01
0.3	5.90E-02	
0.25	4.92E-02	
0.2	3.93E-02	
0.15	2.95E-02	
0.125	2.46E-02	
0.1	1.97E-02	