

July 30, 2015

Mr. Jack Davis  
Director, Japan Lessons Learned Division  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject:** Request for NRC Endorsement of *High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation (EPRI 3002004396)*

**Project Number: 689**

Dear Mr. Davis:

This letter provides the *High Frequency Program: Application Guidance for Functional Confirmation and Fragility Evaluation (EPRI 3002004396)* for NRC review and endorsement. The NRC-endorsed Seismic Evaluation Guidance *Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic (EPRI 1025287)* provides guidance for conducting seismic evaluations as requested in Enclosure 1 of the NRC's March 12, 2012 50.54(f) letter, which requested that licensees and holders of construction permits under 10 CFR Part 50 reevaluate the seismic hazards at their sites against present-day NRC requirements and guidance.

One of the key recommendations of EPRI 1025287 was to limit the evaluation of potential high frequency vulnerability to components such as relays, switches, and other devices that are subject to intermittent states. To support the seismic evaluations, EPRI developed a High Frequency Program, which conducted high frequency seismic testing of a diverse set of typical plant control components. The test program used a common test protocol for three-axis high-frequency input motion and a common protocol for monitoring of device state. The results of this test program were documented in EPRI 3002002997.

EPRI 3002004396 provides guidance on applying the results from the high frequency seismic testing of devices to support the high frequency confirmation identified in EPRI 1025287 for plant sites that screen out of risk evaluations. The report also provides guidance for considering high frequency motions for plant sites that require the conduct of new seismic probabilistic risk assessments (SPRAs).

The NRC letter dated May 9, 2014 (ML14111A147) recognized that the schedule milestones and content of limited scope evaluations will require additional development and coordination with stakeholders. Since that letter, the industry and NRC have had several public meetings to discuss the High Frequency Program, with the most recent public meeting taking place on July 15, 2015. These stakeholder interactions have provided valuable insights and considerations which are reflected in the final version of the guidance.

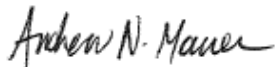
The following industry implementation schedule for plants not performing SPRAs is based on NRC endorsement of EPRI 3002004396 by August 31, 2015. For those plants performing SPRAs, the high frequency review will be performed as part of the SPRA consistent with the schedule set forth in the NRC letter dated May 9, 2014 for plants in the central and eastern U.S. or the NRC letter dated May 13, 2015 for western U.S. plants.

| Date              | Scope of plants   | Action  |
|-------------------|---|---|
| December 31, 2015 | Licensees who were identified in Enclosure 2 of the NRC letter dated May 9, 2014 or in a subsequent NRC decision as requiring a limited evaluation for high frequency and qualify for Low Spectral Acceleration or Limited High Frequency Exceedance as described in EPRI 3002004396 Section 3.1        | Submit a high frequency submittal to NRC consistent with Section 4.7 of EPRI 3002004396       |
| December 31, 2016 | Licensees who were identified in Enclosure 2 of the NRC letter dated May 9, 2014 or in a subsequent NRC decision as requiring a limited evaluation for high frequency and do not qualify for Low Spectral Acceleration or Limited High Frequency Exceedance as described in EPRI 3002004396 Section 3.1 | Submit a high frequency submittal to NRC consistent with Section 4.7 of EPRI 3002004396       |
| December 31, 2016 | Licensees who applied the IPEEE-based screening process in Section 3.3 of EPRI 1025287 (SPID) and were subsequently determined by NRC to be acceptable as provided in Enclosure 2 of the NRC letter dated May 9, 2014 or in a separate determination by NRC   | Submit an IPEEE relay chatter review to the NRC consistent with Section 3.3.1 of EPRI 1025287 |
| August 31, 2017   | Licensees who screened in to perform an SPRA per Enclosure 2 of the NRC letter dated May 9, 2014 or in a subsequent NRC decision and were subsequently granted relief by the NRC for performing an SPRA and do not intend to perform an SPRA  | Submit a high frequency submittal to NRC consistent with Section 4.7 of EPRI 3002004396       |

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| June 30, 2017  | Western US licensees not performing SPRAs  | Submit a high frequency submittal to NRC consistent with Section 4.7 of EPRI 3002004396 |
| Date consistent with SPRA schedule contained in NRC letter dated May 9, 2014 | Licensees who screened in to perform an SPRA per Enclosure 2 of the NRC letter dated May 9, 2014 or in a subsequent NRC decision and were subsequently granted relief by the NRC for performing an SPRA but still intend to perform an SPRA outside of the NRC's March 12, 2012 50.54(f) letter will address high frequency as part of the SPRA. | Submit a high frequency submittal to NRC consistent with Section 4.7 of EPRI 3002004396 |

If you have any questions, please contact me.

Sincerely,



Andrew N. Mauer

Attachment

c: Mohamed Shams, NRR/JLD/PPSD/HMB, NRC  
Stephen Wyman, NRR/JLD/PPSD/HMB, NRC