



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 20, 2013

Ms. Kimberly A. Keithline  
Senior Project Manager  
Nuclear Energy Institute  
1776 I Street NW, Suite 400  
Washington, DC 20006-3708

SUBJECT: RESPONSE TO NUCLEAR ENERGY INSTITUTE REQUEST FOR REVIEW OF DRAFT ELECTRIC POWER RESEARCH INSTITUTE REPORT, "SEISMIC EVALUATION GUIDANCE: AUGMENTED APPROACH FOR THE RESOLUTION OF FUKUSHIMA NEAR-TERM TASK FORCE RECOMMENDATION 2.1: SEISMIC"

Dear Ms. Keithline:

On behalf of the U.S. Nuclear Regulatory Commission (NRC or the staff), I am responding to the Nuclear Energy Institute's (NEI's) January 31, 2013, letter<sup>1</sup> transmitting the Electric Power Research Institute (EPRI) draft document, "Draft – EPRI (2004, 2006) Ground-Motion Model (GMM) Review Project" (GMM update project). The purpose of this letter was to transmit information on a preliminary, updated, EPRI GMM for the central and eastern United States (CEUS) to "facilitate discussion and decision making." A CEUS GMM will be used by licensees in responding to Enclosure 1, "Recommendation 2.1: Seismic," of the March 12, 2012, information request<sup>2</sup> that was issued pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued as part of the lessons learned from the accident at the Fukushima Dai-ichi nuclear facility. The 50.54(f) letter requested, in part, nuclear power plant licensees to perform a seismic hazard reevaluation and indicated that licensees in the CEUS are to use the EPRI (2004, 2006) GMM currently endorsed by the NRC.

The GMM update project was undertaken by the EPRI staff to provide a more current GMM for use by the CEUS licensees in responding to the 50.54(f) letter. By letter<sup>3</sup> dated August 24, 2012, the EPRI staff notified the NRC of its intent to proceed with Phase 2 of the GMM update project.

Staff conducted three public meetings to discuss EPRI's GMM update project on October 18, 2012, January 23, 2013, and February 28, 2013. At the January 23, 2013, public meeting, industry stated it expected to receive formal staff approval to use the updated GMM by February 27, 2013. Staff stressed that industry should use the existing EPRI 2004, 2006 staff-approved model if staff was not able to approve the EPRI update.

At this time the NRC staff is unable to accept the EPRI updated GMM for CEUS licensees due to two major concerns with the updated model:

<sup>1</sup> The letter is available in the Agencywide Document Access and Management System (ADAMS) under Accession No. ML13059A090.

<sup>2</sup> The letter is available in ADAMS under Accession No. ML12053A340.

<sup>3</sup> The letter is available in ADAMS under Accession No. ML12240A034.

- **Treatment of Uncertainty** – Only three new ground motion models were included in the proposed update while several previously used ground motion prediction equations were eliminated from the new model; two of the new models receive a disproportionate amount of weight relative to the other models.
- **Documentation** – The documentation provided is inadequate; therefore staff cannot make its determination of acceptability; portions of the report that were expected to be completed by January were insufficient. Specifically, staff needs to understand why application of the draft updated EPRI GMM results in significant changes in hazard results for seven test sites in the CEUS.

The NRC staff notified industry and stakeholders of these concerns at a public meeting on February 28, 2013. After stating its concerns, the staff provided suggestions for potential improvements to the GMM update project to better capture uncertainties. Staff is willing to continue to work with industry to ensure the NRC staff's concerns are addressed and to arrive at a mutually agreeable GMM update for the CEUS. The next public meeting<sup>4</sup> to discuss the GMM update project is March 26, 2013. However, by this letter we are notifying you that the staff has ceased its formal review of NEI's January 31, 2013, submittal. After NRC and industry staff resolve the concerns noted above, the NRC will open a new formal review if industry chooses to submit a revised GMM and supporting technical basis document.

If you or your staff have additional questions, please contact Lisa Regner at 301-415-1906, or by email at [Lisa.Regner@nrc.gov](mailto:Lisa.Regner@nrc.gov).

Sincerely,



Matthew A. Mitchell, Chief  
Projects Management Branch  
Japan Lessons-Learned Project Directorate  
Office of Nuclear Reactor Regulation

cc: See enclosed list  
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<sup>4</sup> The meeting notice is available in ADAMS at Accession No. ML13065A056.

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If you or your staff have additional questions, please contact Lisa Regner at 301-415-1906, or by email at [Lisa.Regner@nrc.gov](mailto:Lisa.Regner@nrc.gov).

Sincerely,  
/RA/

Matthew A. Mitchell, Chief  
Projects Management Branch  
Japan Lessons-Learned Project Directorate  
Office of Nuclear Reactor Regulation

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\*Concurrence via e-mail

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<sup>5</sup> The meeting notice is available in ADAMS at Accession No. ML13065A056.

Letter to Kimberly A. Keithline from Lisa M. Regner dated March xx, 2013

SUBJECT: RESPONSE TO NUCLEAR ENERGY INSTITUTE REQUEST FOR REVIEW OF DRAFT ELECTRIC POWER RESEARCH INSTITUTE REPORT, "SEISMIC EVALUATION GUIDANCE: AUGMENTED APPROACH FOR THE RESOLUTION OF FUKUSHIMA NEAR-TERM TASK FORCE RECOMMENDATION 2.1: SEISMIC"

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