



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

July 24, 2015

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3R-C
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3 – STAFF REVIEW OF
INTERIM EVALUATION ASSOCIATED WITH REEVALUATED SEISMIC
HAZARD IMPLEMENTATION OF NEAR-TERM TASK FORCE
RECOMMENDATION 2.1 (TAC NOS. MF5225, MF5226, AND MF5227)

Dear Mr. Shea:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information pursuant to Title 10 of the *Code of Federal Regulations* Part 50, Section 50.54(f) (hereafter referred to as the 50.54(f) letter). The request was issued as part of implementing lessons-learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 1 to the 50.54(f) letter requested that licensees reevaluate seismic hazards at their sites using present-day methodologies and guidance. Enclosure 1, Item 6, of the 50.54(f) letter requested that licensees identify "interim evaluation and actions taken or planned to address the higher seismic hazard relative to the design basis as appropriate, prior to completion of the [seismic] risk evaluation." In addition to the interim evaluation provided in the March 2014 Seismic Screening and Hazard report, the licensees for the Central and Eastern United States committed to providing the Expedited Seismic Evaluation Process (ESEP) report, an interim evaluation, by December 31, 2014.

By letter dated December 22, 2014¹, Tennessee Valley Authority (TVA, the licensee), provided its ESEP report in a response to Enclosure 1, Item (6) of the 50.54(f) letter, for the Browns Ferry Nuclear Plant, Units 1, 2 and 3 (Browns Ferry). The NRC staff assessed the licensee's implementation of the ESEP guidance through the completion of a reviewer checklist². In support of NRC staff questions, TVA provided a response dated May 26, 2015³, clarifying submittal information. Based on the NRC staff review of the ESEP report and responses to the staff's questions, the NRC staff concludes that the licensee's implementation of the interim evaluation meets the intent of the guidance.

¹ The December 22, 2014, letter can be found under ADAMS Accession No. ML14365A046.

² The Browns Ferry ESEP NRC review checklist can be found under ADAMS Accession No. ML15196A021.

³ The Browns Ferry response to NRC staff questions can be found ADAMS Accession No. ML15189A235.

The staff concludes that, through the implementation of the ESEP guidance, the licensee identified and evaluated the seismic capacity of certain key installed mitigating strategies equipment that is used for core cooling and containment functions to cope with scenarios that involve a loss of all alternating current power and loss of access to the ultimate heat sink to withstand a seismic event two times the safe shutdown earthquake for BFerry. The licensee's ESEP assessment provides additional assurance, which supports continued plant safety while the longer-term seismic evaluation is completed to support regulatory decision making. The NRC staff concludes that the licensee responded appropriately to Enclosure 1, Item (6) of the 50.54(f) letter. Application of this review is limited to the interim evaluation as part of the Recommendation 2.1 Seismic review.

If you have any questions, please contact me at (301) 415-1617 or via e-mail at Frankie.Vega@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'F. Vega', with a stylized flourish at the end.

Frankie G. Vega, Project Manager
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

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J. Shea

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The staff concludes that, through the implementation of the ESEP guidance, the licensee identified and evaluated the seismic capacity of certain key installed mitigating strategies equipment that is used for core cooling and containment functions to cope with scenarios that involve a loss of all alternating current power and loss of access to the ultimate heat sink to withstand a seismic event two times the safe shutdown earthquake for BFerry. The licensee's ESEP assessment provides additional assurance, which supports continued plant safety while the longer-term seismic evaluation is completed to support regulatory decision making. The NRC staff concludes that the licensee responded appropriately to Enclosure 1, Item (6) of the 50.54(f) letter. Application of this review is limited to the interim evaluation as part of the Recommendation 2.1 Seismic review.

If you have any questions, please contact me at (301) 415-1617 or via e-mail at Frankie.Vega@nrc.gov.

Sincerely,
/RA/

Frankie G. Vega, Project Manager
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

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