



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

September 22, 2014

Mr. Louis Cortopassi  
Site Vice President and Chief  
Nuclear Officer  
Omaha Public Power District  
Fort Calhoun Station  
Mail Stop FC-2-4  
9610 Power Lane  
Blair, NE 68008

SUBJECT: FORT CALHOUN STATION, UNIT 1 - SCREENING AND PRIORITIZATION RESULTS OF INFORMATION PROVIDED PURSUANT TO TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS* PART 50, SECTION 50.54(f), SEISMIC HAZARD REEVALUATIONS FOR RECOMMENDATION 2.1 OF THE NEAR-TERM TASK FORCE REVIEW OF INSIGHTS FROM THE FUKUSHIMA DAI-ICHI ACCIDENT (TAC NO. MF3735)

Dear Mr. Cortopassi:

The purpose of this letter is to inform Omaha Public Power District (OPPD) of the results for Fort Calhoun Station (FCS), Unit 1, regarding the U.S. Nuclear Regulatory Commission's (NRC) seismic screening and prioritization review. The staff has determined that FCS screens out of conducting a seismic risk evaluation since the Individual Plant Examination for External Events (IPEEE) demonstrates plant seismic capacity to levels higher than the ground motion response spectra (GMRS) in the 1-10 Hertz (Hz) range and OPPD demonstrated that the IPEEE-related screening criteria in the NRC-approved industry guidance was met. This determination is predicated on the licensee fulfilling certain commitments as discussed later. Additionally, the NRC staff concurs with OPPD's determination to conduct the spent fuel pool evaluation at FCS which is consistent with commitments in the March 31, 2014 letter (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14097A08). The spent fuel pool evaluation will be performed because spent fuel pools were not included in the original scope of the IPEEE evaluation. Additionally, FCS screens out of performing a high frequency evaluation because the IPEEE capacity exceeds the GMRS in the greater than 10 Hz range.

This letter only transmits the NRC staff's result of the screening and prioritization of the seismic hazard submittal for FCS. The NRC staff is continuing its review of the seismic hazard reevaluation submittal and may request additional plant-specific information to support this review. The NRC staff plans to issue an assessment for FCS on the reevaluated seismic hazard no later than the third quarter 2015.

#### BACKGROUND

On March 12, 2012, the 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) (ADAMS Accession No. ML12053A340). The purpose of that request was to gather information

concerning, in part, seismic hazards at each operating reactor site and to enable the NRC staff to determine whether licenses should be modified, suspended, or revoked. Further, the 50.54(f) letter stated that the NRC would provide screening and prioritization results to indicate deadlines, if necessary, for individual plants to complete seismic risk evaluations that assess the total plant response to the reevaluated seismic hazard. In response to the 50.54(f) letter, all addressees committed to follow the Electric Power Research Institute Report (EPRI), "Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic,"<sup>1</sup> as supplemented by the EPRI Report, "Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic"<sup>2</sup> (referred to as the expedited approach).

In response to the 50.54(f) letter, OPPD submitted their reevaluated hazard for FCS in March 2014. The Report specified that FCS screens out for performing a seismic risk evaluation. The Report also specified that for the limited-scope evaluations, a high frequency evaluation was not necessary for FCS; however, a spent fuel pool seismic evaluation will be performed. Subsequently, by letter dated May 9, 2014 (ADAMS Accession No. ML14111A147), the NRC staff informed all licensees of operating reactors in the central and eastern United States of the screening and prioritization results to support completing seismic risk and limited-scope evaluations, as described in Enclosure 1 of the 50.54(f) letter. In the May 2014 letter, the NRC staff identified that FCS conditionally screens in to perform a seismic risk evaluation (Prioritization Group 3), high frequency evaluation, and spent fuel pool evaluation for the purposes of the screening and prioritization review because additional information was needed to demonstrate FCS's IPEEE adequacy for the purpose of seismic screening.

### SCREENING PROCESS

As discussed in the May 2014 letter, the NRC staff's screening review was performed using the SPID guidance. The SPID provides guidance on seismic screening when the ground motion response spectra (GMRS) is above the safe shutdown earthquake (SSE), but bounded by the IPEEE capacity spectrum. To use the IPEEE capacity spectrum for seismic screening, OPPD needed to demonstrate the adequacy of FCS's IPEEE evaluation by satisfying specific criteria in the SPID. If the IPEEE capacity is greater than the GMRS in the 1-10 Hz range and meets the IPEEE-related screening criteria in the SPID, a plant would screen out of conducting a seismic risk evaluation.

### SCREENING REVIEW ASSESSMENT

A public meeting (Meeting Summary available in ADAMS Accession No. ML14175A518) was conducted on June 17, 2014, between the NRC staff and OPPD, in part, to address the staff's questions regarding FCS's IPEEE evaluation to demonstrate plant seismic capacity and meet the corresponding screening criteria in the SPID. The staff issued OPPD a request for additional information (RAI) on July 16, 2014 (ADAMS Accession No. ML14195A086) to support the NRC's final screening and prioritization determination for FCS. By letter dated

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<sup>1</sup> The SPID guidance document is found in ADAMS under Accession No. ML12333A170. The staff endorsement letter for the SPID guidance is found in ADAMS under Accession No. ML12319A074.

<sup>2</sup> The Expedited Approach guidance document is found in ADAMS under Accession No. ML13102A142.

July 25, 2014, (ADAMS Accession No. ML14206B064), OPPD submitted its response to the RAI.

The RAI response discussed how the Class I structural members inside the containment and auxiliary building that were determined to be non-conforming with FCS's current licensing basis will be brought into compliance and support screening based on IPEEE capacity. The NRC staff reviewed the information provided by OPPD and understands that upon completion of Commitment 4 in Confirmatory Action Letter (CAL) EA-13-243, dated December 17, 2013 (ADAMS Accession No. ML13351A395), the identified structures will be restored to full design margin as described in FCS's current licensing basis. This work activity to restore full design margin is scheduled to begin in 2015 with expected completion during the 2016 refueling outage. Based on the staff's review of the March 2014 Seismic Hazard Evaluation and Screening Report, information provided in the OPPD's RAI response, and the CAL EA-13-243 commitment to correct the condition, FCS will meet the IPEEE-related screening standards. Upon completion of Commitment 4, the NRC will verify that OPPD effectively implemented the commitment. If the structural modification does not meet the IPEEE screening capacity, FCS is expected to perform and submit a seismic risk evaluation to the NRC by December 31, 2020.

#### FINAL SCREENING AND PRIORITIZATION

Plant name	Screening Result	Expedited Approach Evaluation	Seismic Risk Evaluation (Prioritization Group)	Limited-scope Evaluations		
				High Frequency Evaluation	Low Frequency Evaluation	Spent Fuel Pool Evaluation
Fort Calhoun Station, Unit 1	Out	X <sup>2</sup>				X

If you have any questions on this matter, please contact Michael Balazik, Project Manager for the Japan Lessons-Learned Division at (301) 415-2856 or at Michael.Balazik@nrc.gov.

Sincerely,



Daniel H. Dorman, Acting Director  
Office of Nuclear Reactor Regulation

Docket No. 50-285

cc: Listserv

<sup>2</sup> As committed in the March 31, 2014 letter (ADAMS Accession No. ML14097A08).

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Sincerely,  
/RA/

Daniel H. Dorman, Acting Director  
Office of Nuclear Reactor Regulation

Docket No. 50-285

cc: Listserv

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<sup>2</sup>As committed in the March 31, 2014 letter (ADAMS Accession No. ML14097A08).