



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

July 17, 2014

Vice President, Operations  
Arkansas Nuclear One  
Entergy Operations, Inc.  
1448 S.R. 333  
Russellville, AR 72802

SUBJECT: ARKANSAS NUCLEAR ONE UNITS 1 AND 2 - RELAXATION OF RESPONSE DUE DATE REGARDING FLOODING HAZARD REEVALUATIONS FOR RECOMMENDATION 2.1 OF THE NEAR-TERM TASK FORCE REVIEW OF THE INSIGHTS FROM THE FUKUSHIMA DAI-ICHI ACCIDENT (TAC NOS. MF3659 AND MF3660)

Dear Sir or Madam:

By letter dated March 12, 2012,<sup>1</sup> the U.S. Nuclear Regulatory Commission (NRC) issued a request for information pursuant to Title 10 of the *Code of Federal Regulations*, Section 50.54(f) (henceforth referred to as the 50.54(f) letter). The NRC issued the request as a part of implementing lessons-learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 2 to the 50.54(f) letter requested licensees to perform a reevaluation of all external flooding hazards using present-day guidance and methodologies.

By letter dated May 11, 2012,<sup>2</sup> the NRC issued a prioritization of due dates for responses from all sites. The flooding hazard reevaluation report (FHRR) was due on March 12, 2014, for Arkansas Nuclear One (ANO) Units 1 and 2.

By letter dated September 30, 2013,<sup>3</sup> Entergy Operations, Inc. (Entergy, the licensee) requested NRC assistance in obtaining the U.S. Army Corps of Engineers (USACE) analysis of dams that could impact the flood levels at the ANO site. By letter dated March 12, 2014,<sup>4</sup> Entergy requested a delay in submittal of the FHRR for ANO Units 1 and 2 to within 6 months of receiving the USACE final analysis. The reason for this request is that the USACE analysis is necessary to complete the flooding hazard reevaluation (FHR) and 6 months is necessary to incorporate the results.

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<sup>1</sup> The 50.54(f) letter is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML12053A340.

<sup>2</sup> The prioritization letter is available in ADAMS under Accession No. ML12097A509.

<sup>3</sup> The request for assistance in obtaining USACE analysis is available in ADAMS under Accession No. ML13275A067.

<sup>4</sup> The extension request from Entergy is available in ADAMS under Accession No. ML14071A459.

The NRC reviewed the justification provided by the licensee and considered the following factors when reviewing the new schedule:

- During a May 22, 2014, public meeting to discuss the extension request,<sup>5</sup> Entergy stated that it had evaluated all hazard mechanisms except for flooding from upstream dam failure. Results of the FHR performed to date indicate that flooding height is below the current licensing basis. In other words, according to the licensee, local intense precipitation results do not trigger an Integrated Assessment, and interim actions are not needed at this time for this portion of the FHR.
- As stated in the NRC's interim staff guidance (ISG) JLD-ISG-2013-01, "Guidance for Assessment of Flooding Hazards Due to Dam Failure," dated July 29, 2013,<sup>6</sup> evaluating flooding hazards for nuclear power plants needs to include consideration of floods resulting from dam failures. The FHR for ANO Units 1 and 2 needs to consider dams that are operated by various government agencies including the USACE. The NRC has entered into an interagency agreement with the USACE to provide the necessary information for Entergy.
- As stated in the NRC's letter dated March 1, 2013,<sup>7</sup> "incomplete hazard reports that only contain an analysis of some flooding hazard mechanisms would not be of substantive benefit for staff and would not be acceptable." Therefore, the licensee must incorporate the information requested from the USACE before a FHRR can be acceptably submitted to the NRC in compliance with the request in the 50.54(f) letter.
- In the March 12, 2014, extension request Entergy provided a rationale for the extension. By letter dated April 14, 2014,<sup>8</sup> in response to an NRC request for additional information Entergy provided a Gantt chart that included a detailed timeline for integrating various aspects of the FHR. This Gantt chart was discussed with Entergy in a public meeting held on May 22, 2014. The Gantt chart provides a detailed schedule and milestones to be completed in order for Entergy to provide a FHRR 6 months after receiving the USACE results.

Given these considerations, the NRC considers the revised schedule proposed by Entergy to be acceptable. Accordingly, and based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the revised required response date for submitting the FHRR for ANO Units 1 and 2 is 6 months after Entergy receives the USACE final analysis. The NRC will include the date when the ANO Units 1 and 2 FHRR is due when the requested USACE information is transmitted to the licensee. The transmittal letter will also note that if the USACE analysis results in a higher flood hazard relative to the design basis, the NRC staff will request

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<sup>5</sup> The summary of the May 22, 2014, meeting can be found in ADAMS under Accession No. ML14162A371.

<sup>6</sup> JLD-ISG-2013-01 is available in ADAMS under Accession No. ML13151A153.

<sup>7</sup> NRC's March 1, 2013, letter is available in ADAMS under Accession No. ML13044A561.

<sup>8</sup> The April 14, 2014, request for additional information response is available in ADAMS under Accession No. ML14105A366.

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that within 60 days of receipt of the USACE analysis Entergy provide interim actions it will take or plans to take to address the higher flooding hazard.

If you have any questions regarding this matter, or if it is necessary to revise the submittal schedule, please contact your NRC project manager, Peter Bamford, at (301) 415-2833 or at [Peter.Bamford@nrc.gov](mailto:Peter.Bamford@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel H. Dorman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Daniel H Dorman, Acting Director  
Office of Nuclear Reactor Regulation

Docket Nos. 50-313 and 50-368

cc: Listserv

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Sincerely,

*/RA/*

Daniel H Dorman, Acting Director  
Office of Nuclear Reactor Regulation

Docket Nos. 50-313 and 50-368

cc: Listserv

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ADAMS Accession No. ML14171A529 \*via email \*\*Previously concurred

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