



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

August 3, 2015

Mr. Wallace Taylor  
Sierra Club Iowa Chapter  
3839 Merle Hay Road, Suite 280  
Des Moines, IA 50310

Dear Mr. Taylor:

The purpose of this letter is to inform you of the U.S. Nuclear Regulatory Commission (NRC) staff's action in response to the Commission's direction in staff requirements memorandum SRM-M150309-I (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15069A451) following the March 9, 2015, Commission's Affirmation Session.

At the Affirmation Session, the Commission approved a Memorandum and Order (CLI-15-5; ADAMS Accession No. ML15068A396) responding to a hearing request by the Sierra Club on license amendments it claims are, or will be, required for the Fort Calhoun Station, Unit No. 1 (FCS). The Sierra Club sought a hearing on the following plant modifications, claiming that the modifications are, or will be, necessary for FCS to comply with its licensing basis and carry with them hearing rights: (1) modifications for flood protection, including severe flooding due to upstream dam failures; (2) reconstitution of design basis and licensing basis documents; (3) modifications to repair or replace inadequate structural beams and columns; and (4) modifications necessary to address issues caused by the fact that the reactor was built above karst terrain. The Memorandum and Order denied the hearing request and referred the matters raised in it to the Executive Director for Operations for consideration under Section 2.206 of Title 10 of the *Code of Federal Regulations* (10 CFR). Based on its review, as discussed below, the NRC staff concluded that none of the matters raised by the Sierra Club is subject to staff review under 10 CFR 2.206 because the matters concern issues that have already been the subject of NRC staff review and evaluation for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question.

The NRC staff specifically addressed the Sierra Club's issue Nos. 1 (flood protection) and 3 (structural beams and columns) in DD-15-04, Director's Decision under 10 CFR 2.206 (ADAMS Accession No. ML15128A349).

The following discussion addresses how issue No. 2 (design and licensing basis) was reviewed, evaluated, and resolved by the NRC. The licensee committed in its "Integrated Report to Support Restart of Fort Calhoun Station and Post Restart Commitments for Sustained Improvement," dated December 2, 2013 (ADAMS Accession No. ML13336A785), that,

After restart, OPPD will complete a significant effort to perform a risk focused reconstitution of the design basis, the licensing basis, and the Updated Safety Analysis Report. As part of this reconstitution, OPPD will ensure proper classification of equipment, convert to a safety related "Q List" approach for equipment classification and complete a key calculation review. A pilot program will be completed during 2014 on a selected system to "check and adjust" the

process, scheduling and resource allocation. The reconstitution project will be completed before the end of fourth quarter 2018.

The NRC continues to monitor the licensee's commitments to resolve issues associated with the design and licensing basis as documented in the post restart Confirmatory Action Letter issued to the licensee on December 17, 2013 (ADAMS Accession No. ML13351A395).

The following discussion addresses how issue No. 4 (karst terrain) was reviewed, evaluated, and resolved by the NRC. FCS is undergoing a seismic hazard review, and issue No. 4 raised by the Sierra Club is bounded by the NRC's request for information per 10 CFR 50.54(f), dated March 12, 2012 (Fukushima 50.54(f) letter; ADAMS Accession No. ML12056A046). The letter states, in relevant part, that

The current regulatory approach, and the resultant plant capabilities, gave the NTTF [Near-Term Task Force] and the NRC the confidence to conclude that an accident with consequences similar to the Fukushima accident is unlikely to occur in the United States (U.S.). The NRC concluded that continued plant operation and the continuation of licensing activities did not pose an imminent risk to public health and safety.

The NRC staff is evaluating the licensee's seismic hazard review in accordance with the schedule provided in the Fukushima 50.54(f) letter. Omaha Public Power District (OPPD, the licensee) provided the results of its seismic walkdown report for FCS to the NRC on November 27, 2012, with supplements on June 28 and November 27, 2013, and March 27, 2014 (ADAMS Accession Nos. ML12340A257, ML13193A236, ML13333A674, and ML14087A450, respectively). The NRC staff assessed the OPPD report on April 22, 2014 (ADAMS Accession No. ML14105A373), and concluded that

... the licensee's implementation of seismic walkdown methodology meets the intent of the walkdown guidance. The staff concludes that the licensee, through the implementation of the walkdown guidance activities and, in accordance with plant processes and procedures, verified the plant configuration with the current seismic licensing basis; addressed degraded, nonconforming, or unanalyzed seismic conditions; and verified the adequacy of monitoring and maintenance programs for protective features. Furthermore, the staff notes that no immediate safety concerns were identified. The NRC staff concludes that the licensee responded appropriately to Enclosure 3 of the 50.54(f) letter.

The NRC issued a letter to all power reactor licensees and holders of construction permits in active or deferred status dated February 20, 2014 (ADAMS Accession No. ML14030A046). Recommendation 2.1 of the Fukushima 50.54(f) letter is to "Order licensees to reevaluate the seismic and flooding hazards at their sites against current NRC requirements and guidance, and if necessary, update the design basis and SSCs [Structures, Systems, and Components] important to safety to protect against the updated hazards." The NRC's February 20, 2014, letter emphasized the staff's expectations regarding any new information found that may impact SSC operability and states, in relevant part, that

The staff considers the seismic hazard reevaluations being performed pursuant

to the 50.54(f) letter to be distinct from the current design or licensing basis of operating plants. Consequently, the results of the analysis performed using present-day regulatory guidance, methodologies, and information would not generally be expected to call into question the operability or functionality of SSCs... However, as with any new information that may arise at a plant, licensees are responsible for evaluating and making determinations related to operability, and any associated reportability, on a case-by-case basis.

Notwithstanding the preceding discussion, and as noted in the 50.54(f) letter, based upon the results of the review of the responses and other available information, the staff may impose additional requirements to protect against the reevaluated seismic hazard. As always, the safety of the operating plants is of paramount importance. The NRC staff will follow established regulatory processes, including the backfit rule, in determining whether additional requirements are warranted.

OPPD provided its seismic hazard and screening report for FCS to the NRC on March 31, 2014 (ADAMS Accession No. ML14097A087). NRC staff provided the results of its screening and prioritization review on September 22, 2014 (ADAMS Accession No. ML14224A526). The staff has determined that FCS does not need to conduct 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 in the 1-10 Hertz range, and OPPD demonstrated that it met the IPEEE-related screening criteria in the NRC-approved industry guidance. This determination is predicated on the licensee fulfilling certain commitments as discussed in the September 22, 2014, letter. In addition, by letter dated October 22, 2014 (ADAMS Accession No. ML14297A332), OPPD concluded that for FCS, there is an insignificant safety benefit from the performance of the Expedited Seismic Evaluation Process, since no long-term seismic risk evaluations are required based on the submitted screening results and FCS has demonstrated seismic capacities above the ground motion response spectra. The NRC staff is continuing its review of the licensee's seismic hazard and screening report.

The seismic concern raised in issue No. 4 was also evaluated by the NRC in "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (EA-12-049), dated March 12, 2012 (ADAMS Accession No. ML12054A736). Order EA-12-049 provides requirements that nuclear power reactor applicants and licensees must comply with to mitigate challenges to key safety functions following beyond-design-basis external events. The Order requires licensees to develop strategies to mitigate a simultaneous loss of all alternating current power and loss of normal access to the ultimate heat sink.

On August 21, 2012, the Nuclear Energy Institute (NEI) submitted Revision 0 to NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide" (ADAMS Accession No. ML12242A378). On August 29, 2012, the NRC staff issued the Japan Lessons-Learned Project Directorate Interim Staff Guidance JLD-ISG-2012-01, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (ADAMS Accession No. ML12229A174). The Interim Staff Guidance was published in the *Federal Register* on September 7, 2012 (77 FR 55230). The Interim Staff Guidance endorses NEI 12-06, Revision 0, and finds the

recommended strategies are an acceptable means of meeting the requirements of Order EA-12-049. JLD-ISG provides guidance and clarification to assist nuclear power reactor applicants and licensees with the identification of measures needed to comply with requirements to mitigate challenges to key safety functions. The Interim Staff Guidance and NEI 12-06, Revision 0, outline the process licensees use to define and deploy strategies to enhance their ability to cope with beyond-design-basis external events, including station blackout.

OPPD gave the NRC staff its overall integrated plan for FCS in response to Order EA-12-049 on February 28, 2013 (ADAMS Accession No. ML13116A208), and confirmed that it has a plan developed in accordance with the guidance of NEI 12-06, Revision 0, for defining and deploying strategies that will enhance the ability to cope with conditions resulting from beyond design basis external events. The NRC staff provided its interim staff evaluation and audit report of the licensee's overall integrated plan by letter dated February 27, 2014 (ADAMS Accession No. ML14007A693). The NRC found that the licensee's plan demonstrates reasonable assurance that the requirements of Order EA-12-049 at FCS will be met. The staff expects that the licensee will implement the plan as described, and will satisfactorily resolve the open and confirmatory items detailed in the interim staff evaluation and audit report.

In addition, the issue regarding seismic hazards is being addressed through rulemaking concerning mitigation of beyond-design-basis events. (See <http://www.regulations.gov>, Docket ID NRC-2011-0299). The rulemaking is developing generic requirements for implementing the mitigation strategies in Order EA-12-049. The rulemaking also addresses the lessons learned and the feedback received following implementation of the Order.

In summary, the NRC staff evaluated the matters raised by the Sierra Club pursuant to 10 CFR 2.206, "Requests for action under this subpart." The matters are not accepted for review pursuant to 10 CFR 2.206, in accordance with NRC Management Directive 8.11 Handbook Part III, paragraph C.2, "Criteria for Rejecting Petitions Under 10 CFR 2.206," because the matters concern "issues that have already been the subject of NRC staff review and evaluation either on that facility, other similar facilities, or on a generic basis, for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question."

W. Taylor

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Please feel free to contact the project manager, Mr. Fred Lyon, at 301-415-2296, or by e-mail at [Fred.Lyon@nrc.gov](mailto:Fred.Lyon@nrc.gov), to discuss any questions related to this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "George A. Wilson".

George A. Wilson, Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-285

cc: Listserv

W. Taylor

- 5 -

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Sincerely,

*/RA/*

George A. Wilson, Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-285

cc: Listserv

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**ADAMS Accession No.** Pkg ML15162A068; SRM-M150309 ML15069A451; Response ML15162A053

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DATE	7/27/15	7/24/15	6/30/15	6/30/15
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