



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

April 14, 2016

Mr. Scott Batson
Site Vice President, Oconee Nuclear Station
Duke Energy Carolinas, LLC
7800 Rochester Highway
Seneca, SC 29672-0752

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3— STAFF ASSESSMENT OF
RESPONSE TO REQUEST FOR INFORMATION PURSUANT TO 10 CFR
50.54(f) FLOOD-CAUSING MECHANISMS REEVALUATION (CAC NOS.
MF1012, MF1013, AND MF1014) AND PATH FORWARD ON CONFIRMATORY
ACTION LETTER

Dear Mr. Batson:

The purpose of this letter is to provide the results of the staff's review of the Flood Hazard
Reevaluation Report and to communicate the NRC's approach to address the regulatory
matters associated with the Confirmatory Action Letter related to flooding at Oconee Nuclear
Station.

By letter dated March 12, 2012, 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)
(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 2
to the 50.54(f) letter requested licensees to reevaluate flood-causing mechanisms using
present-day methodologies and guidance. By letter dated March 12, 2013 (Agencywide
Documents Access and Management System (ADAMS) Accession No. ML13079A227), Duke
Carolinas, LLC (Duke, the licensee) submitted its flood hazard reevaluation report (FHRR) for
Oconee Nuclear Station, Units 1, 2 and 3 (Oconee). Duke also provided supplemental
information resulting from requests for additional information and audits. The supplemental
information included the licensee's revised FHRR for Oconee and was submitted on March 6,
2015 (ADAMS Accession No. ML15072A099).

By letter dated September 24, 2015 (ADAMS Accession No. ML15239B261), the NRC staff
transmitted to Duke a summary of the staff's review of the licensee's reevaluated flood-causing
mechanisms. The enclosed staff assessment provides the documentation supporting the NRC
staff's conclusions summarized in that letter¹. As stated in that letter, the 2015 reevaluated
flood hazard results for local intense precipitation; rivers and streams; and dam failure, were not
bounded by the current plant design-basis analyses. In order to complete its response to
Enclosure 2 to the 50.54(f) letter, the licensee is expected to submit an integrated assessment
or a focused evaluation, as appropriate, to address these reevaluated flood hazards, as
described in the NRC's September 1, 2015, letter (ADAMS Accession No. ML15174A257). The

**The Enclosures transmitted herewith contain Security-Related Information. When
separated from the Enclosures, this document is decontrolled.**

NRC staff has determined that Duke has appropriately completed steps 1 through 6 of the 10-step process described in Enclosure 2 of the 50.54(f) letter. This closes out the NRC's efforts associated with CAC Nos. MF1012, MF1013, and MF1014. New CAC numbers will be assigned for future NRC review of the new information submitted to address the revised flood hazards.

Flooding hazards at the Oconee site have been the subject of significant interactions between the NRC and Duke prior to the 10 CFR 50.54(f) letter issued in response to the Fukushima Dai-ichi accident. Enclosure 2 of this letter provides a summary comparison of Duke's 2015 flood hazards evaluation and Duke's prior flood hazards evaluation docketed in 2010, relative to a postulated Jocassee dam failure. The NRC staff has determined that the 2010 licensee evaluation reflects a bounding flood hazard analysis for Oconee based on conservative assumptions. The 2015 evaluation reflects a reasonable analysis that removes some conservatism from the 2010 analysis, and is consistent with recent Commission direction regarding licensees' flood hazard reevaluation in response to the 50.54(f) letter. Therefore, the NRC staff concluded that the licensee's estimated flood levels at the ONS are considered reasonable and satisfy the information requests for each letter. Further, the staff concludes that the revised 2015 FHRR provides an acceptable alternative flood hazard analysis for ONS for the purpose of meeting the terms of the June 22, 2010, NRC Confirmatory Action Letter (CAL). Following the completion of the associated flooding modifications by June 2016, the NRC will evaluate whether the terms of the CAL have been satisfied.

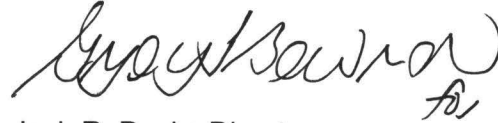
By letter dated January 8, 2016, Duke submitted supplemental information regarding the external flooding hazards for Oconee. In that letter, Duke indicated its intent to maintain in effect certain compensatory actions implemented in response to the CAL. The NRC views these actions as an important element in Duke's overall strategy to mitigate the risks associated with a potential failure of the Jocassee Dam. Also in that letter, you stated your intent to revise the Oconee Updated Final Safety Analysis Report to reflect the results of the revised FHRR and the related actions taken by Duke to resolve external flooding issues, in accordance with forthcoming NRC guidance. Going forward, the NRC staff will address ongoing external flooding issues for Oconee within the framework of the Fukushima Near-Term Task Force Recommendation 2.1 process, to ensure consistency in the staff's approach to addressing these issues for all plants.

S.Batson

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If you have any questions, please contact Juan Uribe or Randy Hall at (301) 415-3809 and (301) 415-4032 respectively, or via e-mail at Juan.Uribe@nrc.gov and Randy.Hall@nrc.gov, respectively.

Sincerely,



Jack R. Davis, Director
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation



Anne Boland, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270 and 50-287

Enclosures:

1. Staff Assessment of Flood Hazard
Reevaluation Report
2. Comparison of 2010
and 2015 Jocassee Dam Failure Evaluations

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S.Batson

- 3 -

If you have any questions, please contact Juan Uribe or Randy Hall at (301) 415-3809 and (301) 415-4032 respectively, or via e-mail at Juan.Uribe@nrc.gov and Randy.Hall@nrc.gov, respectively.

Sincerely,

/RA Gregory Bowman for/

Jack R. Davis, Director
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

/RA/

Anne Boland, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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ADAMS Accession Nos.: Pkg. ML15356A161; Letter ML15352A207 (PUBLIC); Enclosures 1&2 ML15356A158
(NON-PUBLIC) ***via email**

OFFICE	NRR/JLD/JHMB/PM*	NRR/JLD/LA	NRO/DSEA/RHM1/BC*	NRR/JLD/JHMB/BC	NRR/DRA/D
NAME	JUribe	SLent	CCook	MShams	JGitter
DATE	03/24/2016	01/07/2016	03/30/2016	03/24/2016	04/03/2016
OFFICE	NRR/DE/D (A)	OGC (NLO)	NRR/DORL/D	NRR/JLD/D	
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DATE	04/05/2016	04/04/2016	04/11/2016	04/14/2016	

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