



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

March 17, 2016

Mr. Kelvin Henderson
Site Vice President
Duke Energy Carolinas, LLC
Catawba Nuclear Station
4800 Concord Road
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 – STAFF REVIEW OF INTERIM EVALUATION ASSOCIATED WITH REEVALUATED SEISMIC HAZARD IMPLEMENTING NEAR-TERM TASK FORCE RECOMMENDATION 2.1 (CAC NOS. MF5233 AND MF5234)

Dear Mr. Henderson:

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 letters dated December 31, 2014,¹ and October 22, 2015,² Duke Energy Carolinas, LLC (Duke, the licensee), provided its ESEP report in a response to Enclosure 1, Item (6) of the 50.54(f) letter, for Catawba Nuclear Station, Units 1 and 2 (Catawba). The NRC staff assessed the licensee’s implementation of the ESEP guidance through the completion of a reviewer checklist³. In support of NRC staff questions, Duke provided a response dated June 23, 2015⁴. Duke also supported an audit held September 15, 2015,⁵ at NRC headquarters. Based on the NRC staff review of the ESEP report and responses to the staff’s questions, the NRC staff

¹ The December 31, 2014, letter can be found under ADAMS Accession No. ML15002A261.

² The October 22, 2015, letter can be found under ADAMS Accession No. ML15300A576.

³ The Catawba ESEP NRC review checklist can be found under ADAMS Accession No. ML16069A139.

⁴ The Duke response to NRC staff questions can be found ADAMS Accession No. ML15175A457.

⁵ The audit summary report can be found under ADAMS Accession No. ML15344A183.

concludes that the licensee's implementation of the interim evaluation meets the intent of the guidance.

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 1.91 times the safe shutdown earthquake for Catawba. 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.

The NRC staff notes that Section 8.4, as updated in the October 22, 2015, letter, contains a summary of planned actions to complete ESEP activities. The Unit 2 actions are complete as of March, 2015. The Unit 1 modifications will be completed following the second planned refueling outage after December 31, 2014. The licensee made a regulatory commitment to submit a letter to the NRC confirming all ESEP modifications are complete.

If you have any questions, please contact me at (301) 415-1115 or via e-mail at Nicholas.DiFrancesco@nrc.gov.

Sincerely,



Nicholas DiFrancesco, Senior Project Manager
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

Docket Nos. 50-413 and 50-414

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/RA/

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