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

February 2, 2026

Shawn Gibby
Vice President
Nuclear Engineering
Duke Energy
525 S. Tryon St.
Charolotte, NC 28202

SUBJECT: CATAWBA NUCLEAR STATION UNIT 1, MCGUIRE NUCLEAR STATION UNIT NOS. 1 AND 2 – AUDIT SUMMARY IN SUPPORT OF LICENSE AMENDMENT REQUEST FOR PROPOSED TECHNICAL SPECIFICATION CHANGE TO SECTION 5.6.5 CORE OPERATING LIMITS REPORT (EPID L-2025-LLA-0132)

Dear Mr. Gibby:

By letter dated August 18, 2025 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25230A072), Duke Energy Carolinas, LLC (Duke Energy, the licensee) submitted a license amendment request (LAR) for the Catawba Nuclear Station, Unit 1 (Catawba) and McGuire Nuclear Station, Units 1 and 2 (McGuire). The proposed amendment requests the addition of the Westinghouse Electric Company LLC (Westinghouse) topical report WCAP-16996-P-A, Revision 1, “Realistic LOCA [Loss of Coolant Accident] Evaluation Methodology Applied to the Full Spectrum of Break Sizes (FULL SPECTRUM™ LOCA Methodology)” (ADAMS package, ML17277A130), to the list of approved analytical methods used to determine the core operating limits provided in technical specification (TS) 5.6.5, “Core Operating Limits Report (COLR).” In addition, the amendment also requests a modification to the TS to permit the use of the Westinghouse fuel cladding alloy designated as AXIOM®. This requires an update to the description of fuel assemblies specified in TS 4.2.1, “Fuel Assemblies,” and addition of the Westinghouse topical report WCAP-18546-P-A, “Westinghouse AXIOM® Cladding for use in Pressurized Water Reactor Fuel” (ADAMS package ML23089A063) to the referenced analytical methods in TS 5.6.5.b.

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the licensee’s submittal and determined that a regulatory audit would assist in the completion of the licensing review process. The NRC staff issued a regulatory audit plan on November 7, 2025 ( ).

The NRC staff conducted the regulatory audit from November 7, 2025 to January 22, 2026.

The audit summary report is provided as an enclosure to this letter.

If you have any questions, please contact me by telephone at 301-415-5136 or by email to John.Klos@nrc.gov.

Sincerely,

/RA/

L. John Klos, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-413,
50-369, and 50-370

Enclosure:
Audit Summary

cc: Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
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AUDIT SUMMARY

LICENSE AMENDMENT REQUEST

FOR PROPOSED TECHNICAL SPECIFICATION CHANGE TO

SECTION 5.6.5 CORE OPERATING LIMITS REPORT

DUKE ENERGY CAROLINAS, LLC

CATAWBA NUCLEAR STATION UNIT 1,

MCGUIRE NUCLEAR STATION UNIT NOS. 1 AND 2

DOCKET NOS. 50-413, 50-369, and 50-370

1.0 BACKGROUND

By letter dated August 18, 2025 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25230A072), Duke Energy Carolinas, LLC (Duke Energy, the licensee) submitted a license amendment request (LAR) for the Catawba Nuclear Station, Unit 1 (Catawba) and McGuire Nuclear Station, Units 1 and 2 (McGuire). The proposed amendment requests the addition of the Westinghouse Electric Company LLC (Westinghouse) topical report WCAP-16996-P-A, Revision 1, “Realistic LOCA [Loss of Coolant Accident] Evaluation Methodology Applied to the Full Spectrum of Break Sizes (FULL SPECTRUMTM LOCA Methodology)” (ADAMS package ML17277A130), to the list of approved analytical methods used to determine the core operating limits provided in technical specification (TS) 5.6.5, “Core Operating Limits Report (COLR).” In addition, the amendment also requests a modification to the TS to permit the use of the Westinghouse fuel cladding alloy designated as AXIOM®. This requires an update to the description of fuel assemblies specified in TS 4.2.1, “Fuel Assemblies,” and addition of the Westinghouse topical report WCAP-18546-P-A, “Westinghouse AXIOM® Cladding for use in Pressurized Water Reactor Fuel” (ADAMS package ML23089A063) to the referenced analytical methods in TS 5.6.5.b.

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the licensee’s submittal and determined that a regulatory audit would assist in the timely completion of the licensing review process. The NRC staff issued the regulatory audit plan on November 7, 2025 (ML25273A179), which detailed the logistics, scheduling, and audit request items in the plan’s attachment.

The NRC staff conducted the regulatory audit from November 7, 2025 to January 22, 2026.

The regulatory audit was performed consistent with NRC Office of Nuclear Reactor

Regulation (NRR) Office Instruction LIC-111, Revision 2, "*Regulatory Audits*" (ML24309A281).

2.0 AUDIT ACTIVITIES AND OBSERVATIONS

The NRC audit team, identified in Section 3.0 of this audit summary, consisted of NRC staff and Section 3.0 of this audit summary lists the primary individuals that took part in or attended the audit.

The regulatory audit was conducted from November 7, 2025 to January 22, 2026. The NRC audit team used an internet-based portal provided by the licensee to review non-docketed information related to the application. Audit meetings via Microsoft Teams with the licensee were held on November 20, 2025, to facilitate technical discussions of audit items that were later submitted on the docket by the licensee.

Technical discussions were focused on the following major areas to:

- Gain a better understanding of the detailed calculations, analyses, and bases underlying the LARs and confirm the NRC staff's understanding of the request.
- Gain a better understanding of plant design features and implications for the LAR request.
- Identify any information needed to enable the NRC staff's evaluation of whether the proposed changes challenge design-basis functions or adversely affect the capability or capacity of plant equipment to perform design-basis functions.
- Identify questions and requests that may become formal requests for additional information or requests for confirmation of information per NRR Office Instruction LIC-115, "Processing Requests for Additional Information" (ML21141A238).

During the discussions, it was determined that docketed information would need to be provided for Audit Questions 1, 2, 3, and 6. Additional docketed information was determined to not be necessary for Audit Questions 4 and 5.

By letter dated January 8, 2026 (ML26008A039), the licensee provided a supplement addressing technical audit points that were discussed during the November 20, 2025, teleconference.

3.0 AUDIT PARTICIPANTS

The following table identifies the NRC audit team members.

Name	Email	Review Area (Organization)
John Klos	John.Klos@nrc.gov	Plant Licensing Branch LPL II-1 (LPL2-1)
Robert Beaton	Robert.Beaton@nrc.gov	Nuclear Systems Performance Branch

Name	Email	Review Area (Organization)
Kevin Heller	Kevin.Heller@nrc.gov	Nuclear Methods and Fuel Analysis Branch

4.0 DOCUMENTS REVIEWED

The licensee provided documents via the portal for review during the audit period. Below lists the documents that the NRC audit team reviewed.

- Westinghouse document WCAP-19088-P, “Engineering Summary Report of the McGuire Units 1 and 2 and Catawba Unit 1 Loss-of-Coolant Accident (LOCA) Analysis with the FULL SPECTRUM LOCA (FSLOCA) Methodology,” Revision 0, September 2025.
- Westinghouse Calculation Note DME-LOCA-CN-AA-000003, “McGuire Units 1 and 2 (DAP/DBP) and Catawba Unit 1 (DCP) Input File Finalization and Region I Break Spectrum Study for the FSLOCA EM Analysis,” Revision 0.
- Westinghouse Calculation Note DME-LOCA-CN-AA-000005, “McGuire Units 1 and 2 (DAP/DBP) and Catawba Unit 1 (DCP) Region I and Region II Uncertainty Analysis for the FULL SPECTRUM LOCA (FSLOCA) Evaluation Model (EM) Analysis,” Revision 0.

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