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

July 12, 2024

Shawn K. Gibby
Vice President - Nuclear Engineering
Duke Energy
526 South Church Street, EC-07H
Charlotte, NC 28202

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION; CATAWBA NUCLEAR STATION, UNITS 1 AND 2 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION; MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION; OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION; SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1; H. B. ROBINSON, STEAM ELECTRIC PLANT, UNIT NO. 2 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION; AND RADIOACTIVE PACKAGE SHIPPING UNDER 10 CFR 71 (71-266 AND 71-345) – REVIEW OF QUALITY ASSURANCE PROGRAM CHANGES (EPID L-2024-LLQ-0002)

Dear Shawn Gibby:

By letter dated April 17, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24108A128), Duke Energy Inc. (Duke), requested U.S. Nuclear Regulatory Commission (NRC) review and approval of Duke's Transition to American National Standards Institute/American Nuclear Society (ANSI/ANS) 3.1-2014, "American National Standard for Selection and Training of Nuclear Power Plant Personnel," and Revision 4 of Regulatory Guide (RG) 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," per Title 10 of the *Code of Federal Regulations* (10 CFR) 50.54(a)(4). Duke previously submitted Amendment 48 of Topical Report DUKE-QAPD-001-A, "Quality Assurance Program Description – Operating Fleet" (ML23320A017), via letter dated November 15, 2023, in accordance with 10 CFR 50.54(a). Duke's reduction in commitment pertains to the change from various commitments in RG 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," revisions to Revision 4 of RG 1.8, dated June 2019.

The NRC staff reviewed Duke's change in commitment from ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel," ANSI/ANS 3.1-1978, "Selection and Training of Nuclear Power Plant Personnel," or the 1979 draft revision of ANSI/ANS 3.1, with plant-specific exceptions to ANSI/ANS 3.1-2014, as documented in Amendment 48 of DUKE-QAPD-001-A. The enclosed safety evaluation finds that Duke will continue to comply with the 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," and plant-specific license requirements, and is therefore, acceptable.

If you have any questions, please contact the project manager, Natreon (Nate) Jordan, at 301-415-7410 or by email at Natreon.Jordan@nrc.gov.

Sincerely,

DAVID WRONA

Digitally signed by DAVID WRONA
Date: 2024.07.12 14:30:45 -04'00'

David Wrona, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos.: 50-325, 50-324, 72-6,
50-413, 50-414, 72-45,
50-369, 50-370, 72-38,
50-269, 50-270, 50-287,
72-04, 72-40, 50-400,
50-261, 72-3, 72-60,
71-266, and 71-345

Enclosure:
Safety Evaluation

cc: w/encls:

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SAFETY EVALUATION FOR COMMITMENT TO REGULATORY GUIDE 1.8, "QUALIFICATION AND TRAINING OF PERSONNEL FOR NUCLEAR POWER PLANTS," REVISION 4, AS DOCUMENTED IN AMENDMENT 48 OF TOPICAL REPORT DUKE-QAPD-001-A, "QUALITY ASSURANCE PROGRAM DESCRIPTION – OPERATING FLEET," FOR BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1, 2 AND ISFSI CATAWBA NUCLEAR STATION, UNITS 1, 2 AND ISFSI MCGUIRE NUCLEAR STATION, UNITS 1, 2 AND ISFSI OCONEE NUCLEAR STATION, UNITS 1, 2, 3 AND ISFSI SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 AND ISFSI DOCKET NOS. 50-325, 50-324, 50-413, 50-414, 50-369, 50-370, 50-269, 50-270, 50-287, 50-400, 50-261, 72-6, 72-45, 72-38, 72-04, 72-40, 72-3, 72-60, 71-266 AND 71-345

1.0 INTRODUCTION

By letter dated April 17, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24108A128), Duke Energy Inc. (Duke, the licensee), requested review of previously submitted Amendment 48 of Topical Report DUKE-QAPD-001-A, "Quality Assurance Program Description – Operating Fleet" (ML23320A017), in accordance with Title 10 of the *Code of Federal* Regulations (10 CFR) Section 50.54(a). Amendment 48 of Topical Report DUKE-QAPD-001-A was submitted by letter dated November 15, 2023. Duke's reduction in commitment pertains to the change from various commitments in Regulatory Guide (RG) 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," revisions to Revision 4 of RG 1.8 (ML19101A395).

DUKE-QAPD-001-A describes the quality assurance (QA) program for the following plants: Brunswick Steam Electric Plant (Brunswick), Units 1 and 2; Catawba Nuclear Station (Catawba), Units 1 and 2; McGuire Nuclear Station (McGuire), Units 1 and 2; Oconee Nuclear Station (Oconee), Units 1, 2, and 3; Shearon Harris Nuclear Power Plant (Shearon Harris), Unit 1; H.B. Robinson Steam Electric Plant (H.B. Robinson), Unit No. 2; the associated Independent Spent Fuel Storage Installations (ISFSI), and QA Program for Radioactive Package Shipping under 10 CFR part 71, "Packaging and Transportation of Radioactive Material."

2.0 REGULATORY EVALUATION

The regulation in 10 CFR 50.54(a) requires each nuclear power plant licensee subject to the requirements of Appendix B to implement a QA program. The regulation, 10 CFR 50.54(a)(4), sets forth the NRC's regulatory requirements regarding changes to a QA program description that are considered a reduction in commitment. Changes to a QA program description that reduce the licensee's commitments must be submitted to the NRC and receive NRC approval prior to implementation.

The regulation in 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," requires each nuclear power plant licensee to establish, implement, and maintain a training and qualification program that is derived from a systems approach to training as defined in 10 CFR 55.4, "Definitions," and must provide for the training and qualification of various categories of nuclear power plant personnel.

3.0 TECHNICAL EVALUATION

In its letter dated April 17, 2024, Duke requested review of a reduction in commitment contained in Amendment 48 of DUKE-QAPD-001-A. In Amendment 48 of DUKE-QAPD-001-A, Duke proposed to change the education and work experience requirements for plant personnel consistent with the regulatory guidance contained in RG 1.8, Revision 4.

The current qualification requirements for personnel at each plant are either American National Standards Institute (ANSI) N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel," or the 1978 or draft September 1979 revisions of American National Standards Institute/American Nuclear Society (ANSI/ANS)-3.1, "Selection and Training of Nuclear Power Plant Personnel," with various exceptions, as described below. Amendment 48 of DUKE-QAPD-001-A moved all Duke plants to ANSI/ANS 3.1-2014, as endorsed by RG 1.8, Revision 4.

Brunswick Units 1, 2, and ISFSI were previously committed to ANSI N18.1-1971, with exceptions, as endorsed by the initial issue of RG 1.8 (ML19283D576), as indicated in Amendment 47 to DUKE-QAPD-001-A. The three specific exceptions included the manager of radiation controls meeting or exceeding the requirements of RG 1.8, Revision 1 (ML13038A100), requirements for shift technical advisors, and that the operations manager will hold a senior reactor operator license per Technical Specification (TS) 5.2.2.f.

Catawba Units 1, 2, and ISFSI were previously committed to ANSI N18.1-1971, with exceptions, as endorsed by the initial issue of RG 1.8, as indicated in Amendment 47 to DUKE-QAPD-001-A. The three specific exceptions included the radiation protection manager, education and experience requirements of licensed operators meeting or exceeding National Academy for Nuclear Training guidelines, and that a licensed senior reactor operator and a licensed reactor operator are those individuals capable of meeting the requirements of TS 5.3.1 and 10 CFR 50.54(m).

Shearon Harris Unit 1 was previously committed to the September 1979 draft of ANS 3.1 with exceptions, as indicated in Amendment 47 to DUKE-QAPD-001-A. The 12 specific exceptions were related to position specific requirements for positions including the operations manager, supervisors requiring licenses, non-licensed supervisors, non-licensed operators, licensed operators, technician and maintenance personnel, inspection personnel, position specific

requirements, as low as reasonably achievable engineer, training specialist, and shift technical advisor requirements.

McGuire Units 1, 2, and ISFSI were previously committed to ANSI N18.1-1971, with exceptions, as endorsed by the initial issue of RG 1.8, as indicated in Amendment 47 to DUKE-QAPD-001-A. The three specific exceptions included the radiation protection manager, education and experience requirements of licensed operators meeting or exceeding National Academy for Nuclear Training guidelines, and that a licensed senior reactor operator and a licensed reactor operator are those individuals capable of meeting the requirements of TS 5.3.1 and 10 CFR 50.54(m).

Oconee Units 1, 2, 3, and ISFSI were previously committed to ANSI N18.1-1978, with exceptions, as endorsed by RG 1.8, Rev. 1, as indicated in Amendment 47 to DUKE-QAPD-001-A. The four specific exceptions included the operations manager, assistant operation manager, education and experience requirements of licensed operators meeting or exceeding National Academy for Nuclear Training guidelines, and that a licensed senior reactor operator and a licensed reactor operator are those individuals capable of meeting the requirements of TS 5.3.1 and 10 CFR 50.54(m).

H.B. Robinson Unit 2 and ISFSI was previously committed to ANSI N18.1-1971, with exceptions, as endorsed by the initial issue of RG 1.8, as indicated in Amendment 47 to DUKE-QAPD-001-A. The two specific exceptions included the manager or radiation control and requirements for the shift technical advisor. Both positions were committed to ANSI/ANS 3.1-1981.

The NRC staff reviewed Duke's request for the proposed change to DUKE-QAPD-001-A, as it pertains to Brunswick Units 1, 2, and ISFSI; Catawba Units 1, 2 and ISFSI; Shearon Harris Unit 1; McGuire Units 1, 2, and ISFSI; Oconee Units 1, 2, 3 and ISFSI; H.B. Robinson Unit 2 and ISFSI; and Radioactive Packaging Licenses. The NRC staff determined that the proposed change to the education and work experience requirements for plant personnel and managers of radiation controls from previous revisions of ANSI N18.1 and ANSI/ANS 3.1 to ANSI/ANS 3.1-2014, which was endorsed with exceptions and clarifications by RG 1.8, Revision 4, are consistent with the regulatory requirements. The proposed change will continue to provide the minimum experiential and educational requirements necessary to ensure that assigned plant personnel can independently evaluate risks and safely execute the responsibilities associated with these positions.

4.0 CONCLUSION

The NRC staff reviewed Duke's proposed change to DUKE-QAPD-001-A. The NRC staff found that the proposed change to revise the education and work experience requirements for plant personnel is consistent with RG 1.8, Revision 4, as endorsed with exceptions and clarifications. In addition, it will continue to comply with 10 CFR 50.120 and plant-specific license requirements, and is therefore, acceptable.

Principal Contributor: M. Fitzgerald

Date: July 12, 2024

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