



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

November 19, 2015

Mr. Regis T. Repko  
Senior Vice President – Governance,  
Projects, and Engineering  
Duke Energy  
Mail Code EC07H/P.O. Box 1006  
Charlotte, NC 28201-1006

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2; SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1; CATAWBA NUCLEAR STATION, UNITS 1 AND 2; MCGUIRE NUCLEAR STATION, UNITS 1 AND 2; AND OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3: REQUEST FOR ADDITIONAL INFORMATION REGARDING CHANGE TO QUALITY ASSURANCE TOPICAL REPORT (CAC NOS. MF6413 THROUGH MF6422)

Dear Mr. Repko:

By letter dated June 24, 2015, Duke Energy Progress, Inc., and Duke Energy Carolinas, LLC (Duke Energy) submitted a combined license amendment request (LAR) for U.S. Nuclear Regulatory Commission (NRC) approval for several of its reactor site. The proposed change would revise or add Technical Specification Surveillance Requirements to verify that the system locations susceptible to gas accumulation are sufficiently filled with water and to provide allowances which permit performance of the verification. These changes are requested to address concerns discussed in NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems." Duke Energy stated in its LAR that the proposal was consistent with Technical Specifications Task Force (TSTF) Traveler – 523, Revision 2, "Generic Letter 2008-01, Managing Gas Accumulation." The NRC staff has reviewed the licensee's submittal and determined that additional information is needed in order to complete its review.

A draft copy of the enclosed questions were sent to Mr. Art Zaremba, to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. Please respond to the enclosed questions within 60 days of the date of this letter.

R. T. Repko

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If you have any questions, please call me at 301-415-4090, or e-mail me at [Jeffrey.White@nrc.gov](mailto:Jeffrey.White@nrc.gov).

Sincerely,

A handwritten signature in black ink that reads "Jeff A Whited". The signature is written in a cursive style with a large, stylized initial "J".

Jeffrey A. Whited, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-325, 50-324, 50-400, 50-413,  
50-414, 50-369, 50-370,  
50-269, 50-270, and 50-287

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION  
OFFICE OF NUCLEAR REACTOR REGULATION  
LICENSE AMENDMENT REQUEST TO ADOPT TSTF-523  
DUKE ENERGY CAROLINAS, LLC AND DUKE ENERGY PROGRESS, INC.  
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1  
CATAWBA NUCLEAR STATION, UNITS 1 AND 2  
MCGUIRE NUCLEAR STATION, UNITS 1 AND 2  
OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3  
DOCKET NOS. 50-325, 50-324, 50-400, 50-413, 50-414,  
50-369, 50-370, 50-269, 50-270, AND 50-287

By letter dated June 24, 2015,<sup>1</sup> Duke Energy Progress, Inc., and Duke Energy Carolinas, LLC (Duke Energy) submitted a combined license amendment request (LAR) for U.S. Nuclear Regulatory Commission (NRC) approval for several of its reactor sites. The proposed change would revise or add Technical Specification (TS) Surveillance Requirements (SRs) to verify that the system locations susceptible to gas accumulation are sufficiently filled with water and to provide allowances which permit performance of the verification. These changes are requested to address concerns discussed in NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems".<sup>2</sup> Duke Energy stated in its LAR that the proposal was consistent with Technical Specifications Task Force (TSTF) Traveler – 523, Revision 2, "Generic Letter 2008-01, Managing Gas Accumulation".<sup>3</sup>

Contrary to the above statement, in its LAR, Duke Energy proposed a 92-day surveillance frequency for Brunswick SRs 3.5.1.1, 3.5.3.1, and 3.6.2.3.3 and Shearon Harris SR 4.6.2.1.e. This differs from the 31-day surveillance frequency for the SRs requested for the other referenced sites. The NRC Model Safety Evaluation,<sup>4</sup> specifies a 31-day surveillance frequency for the SRs. The NRC staff has reviewed the licensee's submittal and determined that responses to the following Request for Additional Information (RAI) questions are needed to clarify the proposed 92-day frequency, and to complete its review.

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<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Accession No. ML15175A438.

<sup>2</sup> ADAMS Accession No. ML072910759.

<sup>3</sup> ADAMS Accession No. ML13053A075.

<sup>4</sup> ADAMS Accession No. ML13255A169.

Enclosure

RAI 1: Please provide the Brunswick surveillance history regarding gas accumulation, starting in 2008, that includes the surveillance date; the location; the measured, allowable, and as-left void volumes; the number of days since the last surveillance; the TS surveillance frequency; and clarification comments. Please do not include surveillance detail that determined existence of a water-solid condition. Please include the total number of Brunswick surveillances.

RAI 2: The proposed Technical Specification Bases for Brunswick SR 3.4.7.2, as submitted with the LAR, state, in part, that:

Gas accumulation in the RHR shutdown cooling (SDC) suction flow path is satisfactorily addressed by procedures which fill the system prior to placing SDC in service.

Is a follow-up measurement of high point voids conducted to assess the acceptability of the filling process?

RAI 3: Please provide justification for selection of a 92-day frequency in Shearon Harris SR 4.6.2.1.e. Please include the RAI 1 and 2 information categories in the response when applicable.

R. Repko

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If you have any questions, please call me at 301-415-4090, or e-mail me at [Jeffrey.White@nrc.gov](mailto:Jeffrey.White@nrc.gov).

Sincerely,

**/RA/**

Jeffrey A. Whited, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-325, 50-324, 50-400, 50-413,  
50-414, 50-369, 50-370,  
50-269, 50-270, and 50-287

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

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