



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

October 26, 2016

Mr. Benjamin C. Waldrep  
Site Vice President  
Shearon Harris Nuclear Power Plant  
5413 Shearon Harris Rd.  
M/C – HNP01  
New Hill, NC 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 – REQUEST FOR  
ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT  
REQUEST TO RELOCATE THE EXPLOSIVE GAS MIXTURE AND LIQUID  
HOLDUP TANKS TECHNICAL SPECIFICATIONS REQUIREMENTS  
(CAC NO. MF8067)

Dear Mr. Waldrep:

By letter dated June 29, 2016 (Agencywide Documents Access and Management System Accession No. ML16182A387), Duke Energy Progress, LLC (Duke Energy, the licensee), submitted a license amendment request in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.90, for Shearon Harris Nuclear Power Plant, Unit 1, to relocate the Explosive Gas Mixture Technical Specification (TS) requirements and Liquid Holdup Tanks TS requirements to a licensee-controlled program in the Procedures and Programs TS section, and modify the Gas Storage Tank Radioactivity Monitoring Program TS into an Explosive Gas and Storage Tank Radioactivity Monitoring Program to include controls for potentially explosive gas mixtures and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is needed in order to complete its review. The enclosed request for additional information was e-mailed to the licensee in draft form on October 6, 2016, and no clarification call was requested by Duke Energy. Please note that if a response to this letter is not received by November 7, 2016, or an acceptable alternate date is not provided in writing, we may deny the application for amendment under the provisions of 10 CFR 2.108, "Denial of application for failure to supply information."

B. Waldrep

- 2 -

If you have any questions, please contact me at 301-415-2760 or [Martha.Barillas@nrc.gov](mailto:Martha.Barillas@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to be 'MB' with a long, sweeping horizontal line extending to the right.

Martha Barillas, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosure:  
Request for Additional Information

cc w/enclosure: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION  
REGARDING LICENSE AMENDMENT REQUEST  
FOR TECHNICAL SPECIFICATION CHANGES PERTAINING TO THE EXPLOSIVE GAS  
AND STORAGE TANK RADIOACTIVITY MONITORING PROGRAM  
DUKE ENERGY PROGRESS, LLC  
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1  
DOCKET NO. 50-400

By letter dated June 29, 2016 (Agencywide Documents Access and Management System Accession No. ML16182A387), Duke Energy Progress, LLC (Duke Energy), submitted a license amendment request (LAR) for Shearon Harris Nuclear Plant, Unit 1. The proposed license amendment requested to relocate the Explosive Gas Mixture Technical Specification (TS) requirements and Liquid Holdup Tanks TS requirements to a licensee-controlled program in the Procedures and Programs TS section, and modify the Gas Storage Tank Radioactivity Monitoring Program TS into an Explosive Gas and Storage Tank Radioactivity Monitoring Program to include controls for potentially explosive gas mixtures and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the LAR and has determined the following request for additional information (RAI) is needed in order to compete its review.

**RAI #1**

LAR Attachment 2, provides wording for the revised TS 6.8.4.j, "Explosive Gas and Storage Tank Radioactivity Monitoring Program," which deviates from Section 5.5.12 of NUREG-1431, "Standard Technical Specifications – Westinghouse Plants," Revision 4. Specifically, the licensee's submittal does not include reference to the accepted NRC methodologies for determining the curie content limit of the liquid storage tanks. Describe the methodology that will be used to replace the accepted NRC methodology to ensure compliance with the revised TS 6.8.4.j and will be used to determine the curie content limits.

Enclosure

**RAI #2**

LAR Section 3.0, "Technical Evaluation," states, in part, that "[t]he current limit, as found in TS 3/4.11.1.4, of less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases, will remain in effect once the requirements are relocated to the licensee-controlled procedure, PLP-114." Using the methodology described in the response to RAI #1, demonstrate that a limit of 10 curies ensures that the limits of 10 CFR Part 20, Appendix B, "Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage," Table 2, Column 2, will not be exceeded at the nearest potable water supply and the nearest surface water supply in an unrestricted area, in the event of an uncontrolled release of the tanks' contents.

B. Waldrep

- 2 -

If you have any questions, please contact me at 301-415-2760 or [Martha.Barillas@nrc.gov](mailto:Martha.Barillas@nrc.gov).

Sincerely,

*/RA/*

Martha Barillas, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-400

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Request for Additional Information

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**ADAMS Accession No.: ML16288A004**

**\*via email**

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NAME	MBarillas	BClayton	UShoop	JDion	MBarillas
DATE	10/26/16	10/20/16	10/14/16	10/26/16	10/26/16

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