



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

June 20, 2019

Ms. Tanya M. Hamilton
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 – ACCEPTANCE OF REQUESTED LICENSING ACTION REGARDING LICENSE AMENDMENT REQUEST TO MODIFY THE DEPARTURE FROM NUCLEATE BOILING RATIO SAFETY LIMIT TO ADDRESS TRANSITION TO NEW FUEL TYPE (EPID NO. L-2019-LLA-0076)

Dear Ms. Hamilton:

By letter dated April 10, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19100A442), Duke Energy Progress, LLC (Duke Energy) submitted a license amendment request (LAR) for the Shearon Harris Nuclear Power Plant, Unit 1 (Harris). The proposed amendment would modify Technical Specification 2.1.1.a to add the departure from nucleate boiling ratio safety limit associated with the transition to the GAIA fuel design from the current high thermal performance fuel in the Harris reactor core. In addition, the TS will be revised to include the topical report for the U.S. Nuclear Regulatory Commission (NRC)-approved correlation associated with the fuel design transition. Duke Energy also requests the review and approval of DPC-NE-2005-P, "Thermal-Hydraulic Statistical Core Design Methodology," Revision 6, for the addition of Appendix J addressing the application of the ORFEO-GAIA critical heat flux correlation.

On May 20, 2019, the U.S. Nuclear Regulatory Commission (NRC) staff held a conference call with members of your staff to discuss insufficiencies identified during the acceptance review of the amendment request. By letter dated May 28, 2019 (ADAMS Accession No. ML19136A271), you were informed of the insufficiencies and informed that the LAR would need to be supplemented by June 7, 2019.

By letter dated June 6, 2019 (ADAMS Accession No. ML19157A036), supplemental information was submitted by Duke Energy. The NRC staff has reviewed the supplemental information and concluded that it does provide technical information in sufficient detail to enable the staff to: (1) perform its detailed technical review, and (2) make an independent assessment regarding the acceptability of the proposed amendment in terms of regulatory requirements and the protection of the public health and safety and environment.

Given the lesser scope and depth of the acceptance review as compared to the detailed technical review, there may be instances in which issues that impact the NRC staff's ability to complete the detailed technical review are identified, despite completion of an adequate acceptance review. You will be advised of any further information needed to support the NRC staff's detailed technical review by separate correspondence.

Based on the information provided in your submittal, the NRC staff has estimated that this licensing request will take approximately 840 hours to complete. The NRC staff expects to complete this review in approximately 18 months or December 2020. If there are emergent complexities or challenges in our review that would cause changes to the initial forecasted completion date or significant changes in the forecasted hours, the reasons for the changes, along with the new estimates, will be communicated during the routine interactions with the assigned project manager.

These estimates are based on the NRC staff's initial review of the application and they could change, due to several factors including requests for additional information, unanticipated addition of scope to the review, and review by NRC advisory committees or hearing-related activities. Additional delay may occur if the submittal is provided to the NRC in advance or in parallel with industry program initiatives or pilot applications.

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

Sincerely,

/RA/

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

Docket No. 50-400

cc: Listserv

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ADAMS Accession No.: ML19165A063

* via email

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