



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

January 20, 2015

Mr. Ernest J. Harkness
Site Vice President
FirstEnergy Nuclear Operating Company
Mail Stop A-PY-A290
P.O. Box 97, 10 Center Road
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT NO. 1 – REQUEST FOR ADDITIONAL INFORMATION CONCERNING CHANGES TO SAFETY LIMIT MINIMUM CRITICAL POWER RATIO DURING SINGLE LOOP OPERATION (TAC NO. MF5007)(L-14-325)

Dear Mr. Harkness:

By application dated March 25, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14084A165), FirstEnergy Nuclear Operating Company (FENOC) submitted a license amendment request for the Perry Nuclear Power Plant, Unit 1. The amendment would revise the technical specification (TS) safety limit minimum critical power ratio during single recirculation loop operation value to support the use of Global Nuclear Fuel-2 fuel during the next operating outage. During a discussion with Mr. Phil Lashley of your staff on January 15, 2015, it was agreed that FENOC would provide a response within 30 days from the date of this letter.

The U.S. Nuclear Regulatory Commission (NRC) staff considers that timely responses to requests for additional information help ensure sufficient time is available for review and contribute toward the NRC's goal of efficient and effective use of staff resources.

E. Harkness

- 2 -

Should circumstances result in the need to revise the requested response date, please contact me at (301) 415-2315.

Sincerely,

/RA/

Eva A. Brown, Senior Project Manager
Plant Licensing III-2 and
Planning and Analysis Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

CHANGES TO SAFETY LIMIT

MINIMUM CRITICAL POWER RATIO

FIRSTENERGY NUCLEAR OPERATING COMPANY (FENOC)

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

1. On page 4 of Attachment C to the October 8, 2014, submittal, FENOC listed the various approved methodologies as the basis for the methodology used to calculate the revised safety limit minimum critical power ratio (SLMCPR). The applicability of these methodologies is contingent upon the change to the SLMCPR not being a result of a fuel design change.

Therefore, provide the differences in design and geometrical considerations between Global Nuclear Fuel-2 and General Electric14, which confirm the acceptability of these methodologies without the need for review of the fuel design.

2. As the loading pattern can affect control rod movement and timing, the U.S. Nuclear Regulatory Commission (NRC) staff is looking to ensure no significant impact on the available margin as a result of shadow corrosion/channel bowing. Therefore, the following information is requested:
 - a. Discuss the methodology and the scheme used for Perry, Unit 1, Cycles 15 and 16, core reloads. Address whether there is a noticeable change in the core radial and axial power shapes between Cycles 15 and 16 reloads.
 - b. For the initial core loadings of the Cycles 15 and 16, specify the fuel type, number of fresh, once burned, twice, and thrice burned fuel.

Enclosure

E. Harkness

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NRR-106

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