

**From:** [Green, Kimberly](#)  
**To:** [Lashley, Phil H. \(phlashley@firstenergycorp.com\)](#); [Heintz, Calvin J. \(cjheintz@firstenergycorp.com\)](#)  
**Subject:** Draft RAIs re Perry Nuclear Power Plant, Unit 1 License Amendment Request to Allow Installation of UCP Gate during MODES 1, 2, and 3, and Drain-Down of Reactor Cavity Portion of UCP During MODE 3 (CAC No. MF7476) (L-16-083)  
**Date:** Monday, November 21, 2016 12:37:00 PM  
**Attachments:** [Draft RAI Attachment.docx](#)

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Dear Mr. Lashley:

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated March 15, 2016, FirstEnergy Nuclear Operating Company submitted a request to modify the technical specifications to allow installation of the reactor well to steam dryer storage pool gate in the upper containment pool (UCP) in MODEs 1, 2, and 3, and draining of the reactor well portion of the UCP in MODE 3, for the Perry Nuclear Power Plant, Unit No. 1.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. Attached, please find a draft request for additional information (RAI).

The draft RAI is being sent to ensure that the questions are understandable, the regulatory basis for the questions is clear, and to determine if the information was previously docketed. This email and the attachment do not convey or represent an NRC staff position regarding the FENOC's request.

A call to clarify the staff's request is scheduled for Tuesday, November 22 at 1:00 PM.

Please let me know if you have any questions.

Sincerely,  
Kimberly Green  
(301) 415-1627  
[kimberly.green@nrc.gov](mailto:kimberly.green@nrc.gov)

DRAFT REQUEST FOR ADDITIONAL INFORMATION

FIRSTENERGY NUCLEAR OPERATING COMPANY

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

In reviewing the FirstEnergy Nuclear Operating Company's submittal dated March 15, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16075A411), related to license amendment request for installation of the gate in upper containment pool (UCP) in MODEs 1, 2, and 3, and draining of the reactor well portion of the UCP in MODE 3, for Perry Nuclear Power Plant, Unit No. 1, the U.S. Nuclear Regulatory Commission (NRC) staff has determined that the following information is needed in order to complete its review:

Title 10 of the *Code of Federal Regulations* (CFR), Section 50.34(f), Additional TMI-related requirements, requires that state-of-the-art human factors principles are used to satisfy all specific regulatory requirements.

NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," is used by the NRC staff to perform safety evaluations of license applications submitted by applicants pursuant to 10 CFR Part 50. The following chapters in the SRP were used to evaluate the human performance aspect of the license amendment request:

Chapter 18, "Human Factors Engineering," Revision 2, discusses the processes for evaluating operator actions. This chapter also identifies specific areas of review that are needed for successful integration of human characteristics and capabilities into nuclear power plant design.

Chapter 13.5.2.1, "Operating and Emergency Operating Procedures," Revision 2, is used to maintain the applicant's operating procedures that will be used by the operating organization to ensure that the routine operating, off-normal, and emergency activities will be conducted in a safe manner.

1. Describe any new or changed operator actions that are required as a result of the proposed installation of the reactor well to steam dryer storage pool gate in the upper containment pool (UCP) in MODES 1, 2 and 3.
2. Describe any new or changed operator actions as a result of the proposed creation of the new Special Operations TS, TS 3.10.9, "Suppression Pool Makeup – MODE 3 Upper Containment Pool Drain-Down."
3. Section 3.2.1, "Reactor Well Gate Installation (MODES 1, 2, and 3) and Section 3.2.2, "Reactor Well Drained in MODE 3," of the enclosure to the license amendment request provide a brief discussion on current emergency operating procedures (EOPs). Describe any changes to manual operator actions covered by EOPs or abnormal procedures that may occur as a result of this amendment. If so, describe any evaluation of the EOPs for potential modifications.
4. Describe any changes the proposed amendment will have on the operator training program. If changes are proposed, provide the implementation schedule for making the changes.

5. Based on FENOC's response to the above questions 1 and 2, describe the verification and validation activities associated with any required changes.

DRAFT