

David B. Hamilton
Vice President

440-280-5382

March 20, 2019
L-19-068

10 CFR 50.54(f)

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

SUBJECT:

Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
Response to Request for Additional Information Regarding Request for Deferral of
Actions Related to Beyond-Design-Basis External Events Flooding Actions (EPID No.
L-2018-JLD-0176)

By letter dated December 7, 2018, FirstEnergy Nuclear Operating Company (FENOC) requested a deferral of the remaining actions related to beyond-design-basis external events flooding actions for Perry Nuclear Power Plant (PNPP) in anticipation of the planned permanent cessation of power operations at PNPP in 2021.

By letter dated February 19, 2019, the Nuclear Regulatory Commission (NRC) staff determined that additional information is required in order to complete its review of the request. Attached is the FENOC response to the request for additional information (RAI).

A list of regulatory commitments contained in this letter is also attached. If there are any questions or if additional information is required, please contact Mr. Phil H. Lashley, Acting Manager, FENOC Nuclear Licensing and Regulatory Affairs, at (330) 315-6808.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 20, 2019.

Sincerely,



David B. Hamilton

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Attachments:

1. Response to Request for Additional Information
2. Regulatory Commitment List

cc: Director, Office of Nuclear Reactor Regulation (NRR)
NRC Region III Administrator
NRC Resident Inspector
NRR Project Manager

Response to Request for Additional Information
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By letter dated December 7, 2018, FirstEnergy Nuclear Operating Company (FENOC) requested a deferral of the remaining actions related to beyond-design-basis external events flooding actions for Perry Nuclear Power Plant (PNPP) in anticipation of the planned permanent cessation of power operations at PNPP in 2021. By letter dated February 19, 2019, Nuclear Regulatory Commission (NRC) staff determined that additional information is required in order to complete its review of the request. The response to this request for additional information (RAI) is provided below. The NRC request is provided in bold type, followed by the FENOC response.

RAI 1: Site response to Local Intense Precipitation

Background:

With regard to plant buildings and permanently installed equipment, the Perry Nuclear Power Plant, Unit 1 (Perry), flood hazard reevaluation report dated March 24, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16084A871), states that the reevaluated local intense precipitation (LIP) event would impact 26 door threshold elevations of the powerblock and exceed 2 door thresholds and 1 louver opening of the Emergency Service Water Pumphouse.

With regard to additional defense-in-depth capabilities, the Perry Mitigating Strategies Assessment dated July 24, 2017 (ADAMS Accession No. ML17205A336), and the deferral letter dated December 7, 2018 (ADAMS Accession No. ML18341A046), state that the FLEX strategies at Perry would potentially be impacted given that the expected water surface elevation would inundate the power block area. The inundation of the power block could potentially pose challenges for the implementation of FLEX strategies due to flooding of the deployment paths and staging areas, in addition to water levels above critical doors that are important for FLEX strategies.

Issue:

The purpose of the focused evaluation is to demonstrate the plant's ability to cope with the reevaluated hazards identified in the Interim Staff Response (ISR) letter, and to identify if further safety enhancements (beyond the sites current protection and mitigation capabilities) are needed. The focused evaluation submittal, which has been requested to be deferred, would have addressed the site response to address LIP exceedances at systems, structures, and components that perform key safety functions of core cooling, spent fuel cooling, and containment integrity. In addition, proposed actions at the site that would allow defense-in-depth capabilities, such as FLEX, to address the reevaluated LIP hazard have also been requested to be deferred.

However, the deferral request does not contain a discussion of licensee commitments, or additional defense-in-depth capabilities or temporary actions, if any, that are planned or available at the site to potentially address a reevaluated LIP event as described in the ISR letter issued on July 25, 2016 (ADAMS Accession No. ML16202A350). The NRC staff requests this information to fully inform its determination and response to the deferral request.

Request:

Discuss what additional capabilities, temporary or permanent, are readily available (or planned under the licensee commitment program) at the site that would potentially address the reevaluated LIP hazard until the planned permanent shutdown of Perry on May 31, 2021.

Response:

To ensure the site is protected from potential flooding concerns for the reevaluated LIP hazard for the remaining time until the planned permanent shutdown, FENOC will re-perform the flooding analyses for the current site configuration and the beyond-design-basis (BDB) rain event to verify current water levels for the bounding BDB rain event. This adjusts the analyses to represent actual site conditions that will exist (during the remaining time until shutdown) when determining LIP exceedances at systems, structures, and components that perform key safety functions. The flooding analyses will be completed by July 12, 2019.

To allow defense-in-depth capabilities, FENOC will then implement temporary measures (such as flood barriers or sand bags) at locations that allow gross leakage paths into Unit 1 or Unit 2 structures. Primary areas of concern include doors, gross openings in building exteriors (such as, penetrations below flood level), and miscellaneous yard equipment. Based on conditions at the specific location, the temporary measures may be pre-staged or stored barrier material and installed upon receipt of a meteorological event warning contained in current site operating instructions. These protective measures will be implemented by September 20, 2019.

Based on these actions, the site would have the capability to address the reevaluated LIP hazard until the planned permanent shutdown on May 31, 2021.

Attachment 2
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Regulatory Commitment List
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The following list identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC) for Perry Nuclear Power Plant (PNPP) in this document. Any other actions discussed in the submittal represent intended or planned actions by FENOC. They are described only as information and are not Regulatory Commitments. Please notify Mr. Phil H. Lashley, Acting Manager, FENOC Nuclear Licensing and Regulatory Affairs, at (330) 315-6808 of any questions regarding this document or associated Regulatory Commitments.

Regulatory Commitment	TYPE		Scheduled Completion Date
	One-Time	Continuing Compliance	
1. FENOC will re-perform the flooding analyses for the current site configuration and the beyond-design-basis (BDB) rain event to verify current water levels for the bounding BDB rain event.	X		July 12, 2019
2. To allow defense-in-depth capabilities, FENOC will then implement temporary measures (such as flood barriers or sand bags) at locations that allow gross leakage paths into Unit 1 or Unit 2 structures.		X	September 20, 2019