



FirstEnergy Nuclear Operating Company

Perry Nuclear Power Plant  
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Frank Payne  
Vice President

440-280-5382

October 18, 2019  
L-19-120

10 CFR 50.71(e)  
10 CFR 50.54(a)

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-001

SUBJECT:

Perry Nuclear Power Plant  
Docket No. 50-440, License No. NPF-58  
Submittal of the Updated Final Safety Analysis Report (UFSAR), Revision 21

In accordance with the requirements of 10 CFR 50.71(e), the FirstEnergy Nuclear Operating Company (FENOC) is hereby submitting to the Nuclear Regulatory Commission (NRC) the Perry Nuclear Power Plant (PNPP) Updated Final Safety Analysis Report (UFSAR), Revision 21, in CD-ROM format. This submittal reflects facility and procedure changes implemented between April 3, 2017 (the end of refueling outage 16), and April 6, 2019 (the end of refueling outage 17), along with several changes implemented after refueling outage 17.

In accordance with 10 CFR 50.4(b)(6), revision 21 of the PNPP UFSAR is submitted electronically on a total replacement basis. As required by NRC guidance for electronic submissions, Attachments 1 and 2 provide a listing of the document components that make up the two enclosed CD-ROMs. In addition to the UFSAR, the first enclosed CD-ROM includes the Technical Specification Bases, revision 12, submitted to satisfy TS 5.5.11, "Technical Specifications (TS) Bases Control Program," which requires submittal of TS Bases changes implemented without prior NRC approval.

The second enclosed CD-ROM includes the PNPP UFSAR, and TS Bases with information identified in accordance with NRC Regulatory Issue Summary (RIS) 2015-17, "Review and Submission of Updates to Final Safety Analysis Reports, Emergency Preparedness Documents, and Fire Protection Documents," removed.

Attachment 3 includes a summary of information removed from the USAR in accordance with Appendix A to Nuclear Energy Institute (NEI) 98-03, "Guidelines for Updating Final Safety Analysis Reports," Revision 1.

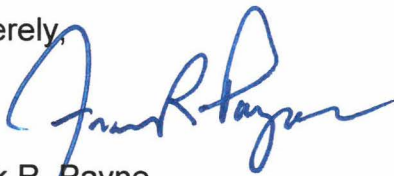
Attachment 4 includes a summary of regulatory commitment changes to be submitted in accordance with NEI 99-04, "Guidelines for Managing NRC Commitment Changes," Revision 0, as endorsed by NRC RIS 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff."

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This certifies, to the best of my judgment and belief, that Revision 21 of the PNPP UFSAR accurately presents changes made since the previous submittal that are necessary to reflect information and analysis submitted to the Commission or pursuant to Commission requirements.

This submittal contains no new regulatory commitments. If you have any questions regarding this report, please contact Mr. Phil H. Lashley, Acting Manager – Nuclear Licensing and Regulatory Affairs, at (330) 315-6808.

Sincerely,



Frank R. Payne

Attachments:

1. List of Document Components on CD-ROM 1
2. List of Document Components on CD-ROM 2 (Information Identified Per RIS 2015-17 Removed)
3. Information Removed from the PNPP UFSAR
4. Commitment Change Summary Report

Enclosures:

- A. Perry Nuclear Power Plant UFSAR, and Technical Specification Bases (on CD-ROM 1)
- B. Perry Nuclear Power Plant UFSAR With Information Identified Per RIS 2015-17 Removed, and Technical Specification Bases (on CD-ROM 2)

cc: NRC Region III Administrator (without Enclosure B)  
NRC Resident Inspector (without Enclosure B)  
NRC Project Manager (without Enclosure B)

Attachment 1  
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List of Document Components on CD-ROM 1  
Page 1 of 2

<u>File Name</u>	<u>Size</u>
001 LIST EFF Rev 21.pdf	128 KB
002 Chapter 00.pdf	743 KB
003 Chapter 01.pdf	14,119 KB
004 Chapter 02.0 to 02.4.pdf	14,096 KB
005 Chapter 02.5 to 02E.pdf	38,219 KB
006 Chapter 03.pdf	15,636 KB
007 Chapter 04.pdf	13,498 KB
008 Chapter 05.pdf	13,815 KB
009 Chapter 06.pdf	14,248 KB
010 Chapter 07.pdf	13,885 KB
011 Chapter 08.pdf	13,630 KB
012 Chapter 09.pdf	15,440 KB
013 Chapter 10.pdf	13,488 KB
014 Chapter 11.pdf	13,768 KB
015 Chapter 12.pdf	13,744 KB
016 Chapter 13.pdf	13,410 KB
017 Chapter 14.pdf	13,763 KB
018 Chapter 15.pdf	17,359 KB
019 Chapter 16.pdf	57 KB
020 Chapter 17.pdf	67 KB
021 FIG_LIST Rev 20.pdf	257 KB
022 Figures Section 01.pdf	17,397 KB
023 Figures Section 02 (2.1-1 to 2.5-46).pdf	27,077 KB
024 Figures Section 02 (2.5-47 to 2.5-49).pdf	20,215 KB
025 Figures Section 02 (2.5-50 to 2.5-215).pdf	26,172 KB
026 Figures Section 02D-1 to 02D-2.pdf	19,648 KB
027 Figures Section 02D-3 to 02E-1.pdf	32,280 KB

<u>File Name</u>	<u>Size</u>
028 Figures Section 03.pdf	38,780 KB
029 Figures Section 04.pdf	1,567 KB
030 Figures Section 05.pdf	4,989 KB
031 Figures Section 06.pdf	7,501 KB
032 Figures Section 07.pdf	10,280 KB
033 Figures Section 08.pdf	3,142 KB
034 Figures Section 09 (9.1-1 to 9.4-29).pdf	18,426 KB
035 Figures Section 09 (9.5-1 to 9.5-26).pdf	4,305 KB
036 Figures Section 09 (9A-1 to 9A-34).pdf	7,371 KB
037 Figures Section 10.pdf	16,540 KB
038 Figures Section 11.pdf	2,660 KB
039 Figures Section 12.pdf	16,970 KB
040 Figures Section 13.pdf	157 KB
041 Figures Section 14.pdf	241 KB
042 Figures Section 15.pdf	5,587 KB
043 PNPP TS Bases Rev 12.pdf	872 KB

Attachment 2  
L-19-120

List of Document Components on CD-ROM 2  
(Information Identified Per RIS 2015-17 Removed)  
Page 1 of 2

<u>File Name</u>	<u>Size</u>
001 LIST_EFF Rev 21.pdf	126 KB
002 Chapter 00.pdf	1,008 KB
003 Chapter 01.pdf	14,117 KB
004 Chapter 02.0 to 02.4.pdf	14,268 KB
005 Chapter 02.5 to 02E.pdf	38,213 KB
006 Chapter 03.pdf	15,632 KB
007 Chapter 04.pdf	13,498 KB
008 Chapter 05.pdf	13,815 KB
009 Chapter 06.pdf	14,243 KB
010 Chapter 07.pdf	13,884 KB
011 Chapter 08.pdf	13,629 KB
012 Chapter 09.pdf	15,436 KB
013 Chapter 10.pdf	13,488 KB
014 Chapter 11.pdf	13,767 KB
015 Chapter 12.pdf	13,796 KB
016 Chapter 13.pdf	13,410 KB
017 Chapter 14.pdf	13,762 KB
018 Chapter 15.pdf	17,358 KB
019 Chapter 16.pdf	57 KB
020 Chapter 17.pdf	67 KB
021 FIG_LIST Rev 20.pdf	256 KB
022 Figures Section 01.pdf	3,161 KB
023 Figures Section 02 (2.1-1 to 2.5-46).pdf	27,077 KB
024 Figures Section 02 (2.5-47 to 2.5-49).pdf	20,214 KB
025 Figures Section 02 (2.5-50 to 2.5-215).pdf	26,171 KB
026 Figures Section 02D-1 to 02D-2.pdf	19,647 KB
027 Figures Section 02D-3 to 02E-1.pdf	32,280 KB

<u>File Name</u>	<u>Size</u>
028 Figures Section 03.pdf	27,864 KB
029 Figures Section 04.pdf	1,567 KB
030 Figures Section 05.pdf	4,989 KB
031 Figures Section 06.pdf	7,311 KB
032 Figures Section 07.pdf	10,280 KB
033 Figures Section 08.pdf	2,746 KB
034 Figures Section 09 (9.1-1 to 9.4-29).pdf	17,806 KB
035 Figures Section 09 (9.5-1 to 9.5-26).pdf	4,245 KB
036 Figures Section 09 (9A-1 to 9A-34).pdf	601 KB
037 Figures Section 10.pdf	16,540 KB
038 Figures Section 11.pdf	2,660 KB
039 Figures Section 12.pdf	1,909 KB
040 Figures Section 13.pdf	157 KB
041 Figures Section 14.pdf	241 KB
042 Figures Section 15.pdf	5,586 KB
043 PNPP TS Bases Rev 12.pdf	859 KB

Attachment 3  
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Information Removed from the PNPP UFSAR  
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In accordance with Nuclear Energy Institute (NEI) 98-03, Revision 1, "Guidelines for Updating Final Safety Analysis Reports," licensees periodically report a brief description of information removed from the Updated Final Safety Analysis Report (UFSAR) and the basis for its removal. The following provides a summary of the information removed from the PNPP UFSAR and the basis for removal.

1. Removed obsolete information from Section 2.2.2.5.c related to the Perry heliport. The heliport was deactivated by the Federal Aviation Administration and the Ohio Department of Transportation Office of Aviation. The removed information is descriptive information that is not important to providing an understanding of the plant's design and operation from either a general or system functional perspective.
2. Removed obsolete information in Section 7.7.1.8 that describes options for obtaining data when traversing incore probe measurement locations are inaccessible. Option 1 has not been used since the addition of Option 2, which uses data from the core monitoring system. The removed information is descriptive information that is not important to providing an understanding of the plant's design and operation from either a general or system functional perspective.
3. Removed redundant, unnecessary depiction of pipe sizes from Figure 5.4-16. The removed information was not originally provided in the FSAR, but later introduced by incorporation of piping and interconnection diagram (P&IDs) or other detailed drawings as a matter of convenience.



Attachment 4  
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Commitment Change Summary Report  
April 2017 – July 2019  
Page 1 of 1

COMMITMENT NUMBER / SOURCE / DATE	COMMITMENT DESCRIPTION	CHANGE	REASON FOR CHANGE
PY-B00656 PY-CEI/NRR-1034L, 7/20/1989 GL 89-08, 5/2/1989	Issue a plant administrative procedure for erosion/corrosion examination program by December 1989	Closed.	This commitment tracked the action to issue a procedure, which was completed. The long-term aspect of the erosion/corrosion monitoring program is governed and maintained by nuclear operating equipment reliability procedures that follow current industry guidance for equipment monitoring.
PY-L01262 PY-CEI/NRR-1221L, 9/24/1990 GL 83-28, 07/08/1983 GL 90-03, 03/20/1990	The vendor technical manual control procedure incorporates a periodic vendor/manufacturer contact. Periodic vendor contact is made with vendors of pre-determined "key" safety related components and with the NSSS vendor.	Closed.	Improved communication technology, such as internet websites and electronic mail, and updated programs and processes (that is, 10 CFR 21 reports, Maintenance Rule Program, OE, BWROG communications, NSSS technical bulletins, nuclear safety advisory letters, service information letters) provide a more effective and efficient means of ensuring key safety-related vendor manuals are current.
PY-L01548 PY-CEI/NRR-1044L, 7/31/1989 GL 88-01, 1/25/1988	The NRC staff position on sample expansion contained in GL 88-01 for identification of IGSCC in BWR piping systems was accepted.	In lieu of these requirements, the sample expansion criteria of BWRVIP-75-A, BWR Vessel and Internals Project Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules, may be used.	BWRVIP-72-A is an NRC-approved alternative to GL 88-01 for inspection schedules and sample expansion. This is used to modify the inspection schedule for Category C and E welds.