energy harbor

Perry Nuclear Power Plant
10 Center Road
P.O. Box 97
Perry, Ohio 44081

Rod L. Penfield
Site Vice President, Perry Nuclear

440-280-5382

June 29, 2021
L-21-017

10 CFR 50.55a(g)

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT:
Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
Perry Nuclear Power Plant Eighteenth Inservice Inspection Summary Report

In accordance with 10 CFR 50.55a, "Codes and standards," and the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, "Inservice Inspection," 2001 Edition through 2003 Addenda, Article IWA-6000, 2013 Edition, and ASME Code Case N-532-5, enclosed please find the inservice inspection summary report for examinations performed prior to and during the eighteenth refueling outage at Perry Nuclear Power Plant (PNPP). This submittal provides the PNPP inservice inspection summary for the timeframe of April 7, 2019, to April 8, 2021.

There are no regulatory commitments contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Phil H. Lashley, Manager – Fleet Licensing, at (330) 696-7208.

Sincerely,

Rod L. Penfield

Enclosure:
Form OAR-1 *Owner's Activity Report*

cc: NRC Region III Administrator
NRC Resident Inspector
NRC Project Manager
Ohio Department of Commerce, Boiler Inspection Section

Enclosure
L-21-017

Form OAR-1 *Owner's Activity Report*

(3 Pages Follow)

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number PY-OAR1-18

Plant Perry Nuclear Power Plant, 10 Center Road, Perry, OH 44081

Unit No. 1 (if applicable) Commercial service date November 18, 1987 Refueling outage no. 1R18

Current inspection interval 4th (1st, 2nd, 3rd, 4th, other)

Current inspection period 1st (1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans 2001 Edition Through 2003 Addenda (3rd Interval, 3rd period), 2013 Edition (4th Interval, 1st Period)

Date and revision of inspection plans Inservice Examination Plan (ISEP) Revision 21 dated 1/24/2019 (3rd Interval, 3rd period), Revision 22 dated 5/17/19 (4th Interval, 1st Period), and Revision 23 dated 2/9/21 (4th Interval, 1st Period)

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans IWA-4540(b) of the 2017 Edition via relief request: NRC SE ML20279A440.

Code Cases used for inspection and evaluation: The following are permitted by the ISEP: N-513-4, N-532-5, N-561-2, N-562-2 (if applicable, including cases modified by Case N-532 and later revisions)

N-597-3, N-613-2, N-648-2, N-661-3, N-666-1, N-695-1, N-716-1, N-735, N-747, N-786-1, N-789-2, N-798, N-800, N-8231-1, N-825, N-831, and N-854

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of 1R18 (refueling outage number) conform to the requirements of the ASME Code, Section XI.

Signed [signature], ISI Program Owner (Owner or Owner's Designee, Title) Date 06/16/2021

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by Hartford Steam Boiler Inspection and Insurance Company of Hartford, CT having inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connect with this inspection.

[signature] Commission 15908 NIR

Inspector's Signature (National Board Number and Endorsement)

Date 06/16/2021

TABLE 1

Items with Flaws or Relevant Conditions That Required Evaluation for Continued Service

Examination Category and Item Number	Item and Flaw or Relevant Condition Description	Evaluation Description
C-B/C2.21 C-B/C2.22	RHR Heat Exchanger 1E12B0001C Nozzle N4 Increased Loads	CR 2020-04636 identified increased loads on the RHR Heat Exchanger N4 Nozzle exceeding vendor allowable limits. Based on review of available data and industry guidance, engineering has determined there is reasonable assurance that the heat exchanger is capable of performing its design function. CA-2020-04636-001 tracks resolution via repair for this condition.
F-A/F1.SN	Snubber 1B21G7091 As-Left Cold Set Found Outside of Design Tolerances	CR 2020-06809 identified this snubber to be outside of its design cold set tolerance. Engineering surveillance and evaluation determined there is no operability concern with the As-Left Cold Set.
F-A / F2.SN	Snubber 1E12H0325 As-Left Cold Set Found Outside of Design Tolerances	CR 2021-02348 identified this snubber to be outside of its design cold set tolerance. Engineering evaluation determined there is no operability concern with the As-Left Cold Set and that there is acceptable movement remaining.

TABLE 2

Abstract of Repair/Replacement Activities Required for Continued Service

Code Class	Item Description	Description of Work	Date Completed (1)	Repair/Replacement Plan Number
3	Emergency Service Water Piping Downstream of 1P45F0523	Replace 8" Elbow, Piping, and Flange	06/04/2019	200760600 (2)
3	Reactor Water Cleanup Pump 1G33C0001A	Replaced Pump	07/14/2020	200816464
2	Reactor Core Isolation Cooling Waterleg Pump 1E51C0003	Replaced Pump	09/15/2020	200783455
3	Standby Diesel Generator Jacket Water Circulating Pump 1R46C0005A	Replaced Pump	01/27/2021	200833955
2	Service Air System Check Valve 1P51F0530	Replace Poppet	04/12/2021	200812516
1	Main & Reheat Steam Snubber 1N22H0015	Replaced Snubber	04/20/2021	200798461
1	Main & Reheat Steam Snubber 1N22H0013	Replaced Snubber	04/20/2021	200798459
2	Feedwater Injection Line 1N27F0542A	Replaced ¾" Half Coupling	04/20/2021	200790601
2	Emergency Service Water Snubber 1E12H0365	Replaced Snubber	04/21/2021	200740468
1	Main & Reheat Steam Snubber 1N22H0131	Replaced Snubber	04/21/2021	200798465
1	Main & Reheat Steam Snubber 1N22H0011	Replaced Snubber	04/21/2021	200798460
3	Flex Hose Connected to Safety Relief Valve 1B21F0041B	Replace 2" Flexible Metal Hose	04/26/2021	200847374
3	Flex Hose Connected to Safety Relief Valve 1B21F0051B	Replace 2" Flexible Metal Hose	04/26/2021	200847431

3	Fuel Pool Cooling Snubber 1G41H0450	Replaced Snubber	04/26/2021	200740767
3	Emergency Service Water Pump A Discharge Valve 1P45F0130A Downstream Piping	Replace Piping	04/29/2021	200774864
3	Reactor Water Cleanup Filter Demineralizer First Inlet Valve 1G36F0002A	Replaced Valve and Actuator	05/02/2021	200789608
3	Reactor Water Cleanup Filter Demineralizer Second Inlet Valve 1G36F0001A	Replaced Valve and Actuator	05/02/2021	200789609
2	MSL D Shutoff Before Seat Drain 1N22F0420D	Rebuild Valve/Actuator/Replace Stem	05/04/2021	200789280
3	Spool Piece Between Emergency Service Water ECC HX Bypass and Valve 1P45F5466A	Replace 14" Spool Piece and Downstream Piping	05/06/2021	200758363
3	Reactor Water Cleanup Pipe Spools Between Regenerative Heat Exchangers 1G33B0001A and 1G33B0001B	Replaced Pipe Spools	05/06/2021	200674600
1	Bolting Hardware for Reactor Core Isolation Cooling Head Spray Piping Flange 2	Replace stud and nut hardware	05/06/2021	200779566
3	Reactor Water Cleanup Pump 1G33C0001B	Replace Pump/Motor Assembly	06/15/2021	200846004

Notes:

(1) "Date Completed" Is the date the final NIS-2A signature was applied. This date may be after the end of the reporting period for work that was physically completed within the reporting period.

(2) Perry Nuclear Power Plant entered its Fourth Inspection Interval on May 18th, 2019. As such, the time between the end of 1R17 and the beginning of the Fourth Inspection Interval are governed by the 2001 Edition and 2003 Addendum of ASME Section XI. These dates encompass April 7th, 2019 to May 17th, 2019.