FENOC™
FirstEnergy Nuclear Operating Company

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

David B. Hamilton
Vice President

440-280-5382

June 29, 2017
L-17-072

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 Sixteenth 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, enclosed please find the inservice inspection summary reports for examinations performed prior to and during the sixteenth refueling outage at the Perry Nuclear Power Plant (PNPP). This submittal provides the PNPP inservice inspection summary for the timeframe of April 25, 2015 to April 3, 2017.

There are no regulatory commitments contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at (330) 315-6810.

Sincerely,

David B. Hamilton

Enclosures:
A. Form NIS-1 *Owners Report for Inservice Inspections*, including attached Inservice Inspection Summary Report for the Perry Nuclear Power Plant
B. Form OAR-1 *Owner's Activity Report*

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

Enclosure A
L-17-072

Form NIS-1 *Owners Report for Inservice Inspections*, including attached Inservice Inspection Summary Report for the Perry Nuclear Power Plant

(Activities performed 4/25/2015 through 5/18/2016)

Consists of Form NIS-1 (3 pages),
and its attached Summary Report P1059-016 (25 pages)

FORM NIS-1 OWNERS REPORT FOR INSERVICE INSPECTIONS
As required by the provisions of the ASME Code Rules

1. Owner FirstEnergy Nuclear Generation, LLC, 76 South Main Street, Akron, OH 44308
(Name and Address of Owner)

2. Plant Perry Nuclear Power Plant, 10 Center Road, Perry, OH 44081
(Name and Address of Plant)

3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date 11/18/87 6. National Board Number for Unit N/A

7. Components Inspected (only the systems with Class 1 and 2 components are listed in following table)

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	PNPP System Designation	National Board No.
Reactor Vessel	GE/CBIN	T-49	1B13	15
Reactor Vessel	GE/A&ES	1B13	1B13	64077
Nuclear Boiler System	GE/A&ES	1B21	1B21	64084
Nuclear Boiler System	Pullman Power Products	1B21	1B21	109
Reactor Recirculation System	GE/A&ES	1B33	1B33	64076
Reactor Recirculation System	Pullman Power Products	1B33	1B33	119
Control Rod Drive Hydraulic Control System	Pullman Power Products	1C11	1C11	92
Standby Liquid Control System	Pullman Power Products	1C41	1C41	108
Containment Atmosphere Monitoring	Johnson Controls	1D23-0064-F	1D23	008
Residual Heat Removal System	Engineers & Fabricators Company	1E12	1E12	1621
Residual Heat Removal System	Pullman Power Products	1E12	1E12	83
Containment Spray System	Pullman Power Products	1E15	1E15	105
Low Pressure Core Spray System	Pullman Power Products	1E21	1E21	85
High Pressure Core Spray System	Pullman Power Products	1E22	1E22	86
Leak Detection System	Johnson Controls	1E51-0068-F	1E31	15
Main Steam Isolation Valve Leakage Control System	Pullman Power Products	1E32	1E32	104
Reactor Core Isolation Cooling System	Pullman Power Products	1E51	1E51	84

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in. (2) Information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

1. Owner FirstEnergy Nuclear Generation, LLC, 76 South Main Street, Akron, OH 44308
(Name and Address of Owner)

2. Plant Perry Nuclear Power Plant, 10 Center Road, Perry, OH 44081
(Name and Address of Plant)

3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date 11/18/87 6. National Board Number for Unit N/A

7. Components Inspected (only the systems with Class 1 and 2 components are listed in following table)

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	PNPP System Designation	National Board No.
Integrated Leak Rate System	Pullman Power Products	1E61	1E61	120
Fuel Transfer System	General Electric	1F42	1F42	64079
Reactor Water Cleanup System	GE/A&ES	1G33	1G33	64075
Reactor Water Cleanup System	Pullman Power Products	1G33	1G33	100
Fuel Pool Cleaning System	Pullman Power Products	1G41	1G41	95
Suppression Pool Drain and Cleanup System	Pullman Power Products	1G42	1G42	96
Suppression Pool Makeup System	Johnson Controls	1G43-0065-F	1G43	019
Containment Vessel Purge System	Pullman Power Products	1M14	1M14	113
Drywell Vacuum Relief System	Pullman Power Products	1M16	1M16	115
Containment Vacuum Relief System	Pullman Power Products	1M17	1M17	87
Combustible Gas Control System	Pullman Power Products	1M51	1M51	106
Main Steam System	Pullman Power Products	1N11	1N11	111
Main, Reheat, and Miscellaneous Drains	Pullman Power Products	1N22	1N22	112
Feedwater System	Pullman Power Products	1N27	1N27	89
Condenser Transfer and Storage System	Pullman Power Products	1P11	1P11	102
Mixed Bed Demineralizer Water Sys.	Pullman Power Products	1P22	1P22	73
Nuclear Closed Cooling System	Pullman Power Products	1P43	1P43	101
Containment Chilled Water System	Pullman Power Products	1P50	1P50	103
Service Air System	Fisher Controls	6393471	1P51	6170
Instrument Air System	Pullman Power Products	1P52	1P52	74
Post Accident Sampling System	Johnson Controls	1P87	1P87	034
Containment System	Newport News	NNI-OS-02	1T23	N/A

FORM NIS-1 (Back)

8. Examination Dates 4/25/2015 to 5/18/2016

9. Inspection Period Identification: Second Period

10. Inspection Interval Identification: Third

11. Applicable Edition of Section XI 2001 Addenda 2003

12. Date/Revision of Inspection Plan: PNPP Inservice Examination Program Plan Revision 17, dated 2/5/15 and Revision 18 dated 11/18/16

13. Abstract of Examinations and tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan.

See attached summary report P1059-0016*

14. Abstract of Results of Examinations and Tests.

See attached summary report P1059-0016*

15. Abstract of Corrective Measures.

See attached summary report P1059-0016*

* Report is 25 pages in length.

We 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) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

Date 05/23/2017 Signed FENOC (Owner) By Stanley V Gorski Stanley V Gorski

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Ohio and employed by Hartford Steam Boiler Insp. And Ins. Co. of Hartford, CT have inspected the components described in this Owner's Report during the period 4/25/2015 to 5/18/2016, and state that to the best of my knowledge and belief the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in the Owner's 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 connected with this inspection.

Thomas J Lapp Commissions NB 9330 N I A OHIO COMM

Inspector's Signature National Board, State, Province, and Endorsements

Date 5/23/17

INSERVICE INSPECTION SUMMARY REPORT

FOR

PERRY NUCLEAR POWER PLANT

(PNPP)

UNIT 1

LOCATED AT: **10 Center Road**
Perry, Ohio 44081

OWNER: **FirstEnergy Nuclear Generation, LLC**
76 South Main Street
Akron, Ohio 44308

REACTOR SUPPLIER: **General Electric Corporation**
175 Curtner Avenue
San Jose, California 95125

NRC DOCKET NUMBER:	50-440
FACILITY FULL POWER LICENSE:	NPF-58
CAPACITY, Mwe:	1305
COMMERCIAL OPERATION DATE:	November 18, 1987
INSPECTION INTERVAL:	May 18, 2009 - May 17, 2019
INSPECTION PERIOD:	Second (May 18, 2013 - May 17, 2017)
REFUELING OUTAGE:	1R16
DOCUMENT COMPLETED:	May 19, 2017

ABSTRACT

Perry Nuclear Power Plant (PNPP) Unit 1 was shut down for twenty-nine (29) days to refuel the reactor vessel [Refueling Outage 16(1R16)] and perform plant maintenance commencing March 5, 2017. During the refueling outage, and during the preceding operating cycle, inservice examinations were performed to comply with plant Operational Requirements Manual and the 2001 Edition through the 2003 Addenda of ASME Section XI.

ASME Section XI requires reporting of examination results for Class 1 and 2 pressure retaining components and their supports. This report summarizes the results of Class 1 and 2 examinations, including Class 3 and Augmented examinations, which were performed in accordance with the schedules within PNPP's Inservice Examination Program Plan (ISEP), Revision 17 and Boiling Water Reactor Vessel and Internals Project (BWRVIP) Program, TAI-0507 Revision 10.

Routine Section XI volumetric, surface and visual examinations were performed on Class 1, 2 and 3 piping systems and pressure retaining components.

It should be noted that during Cycle 16, PNPP implemented Code Case N-532-5, which allows the use of Form OAR-1, "Owner's Activity Report" in lieu of Form NIS-1, "Owner's Report for Inservice Inspections". As such, this report will only discuss activities which were performed between the beginning of Cycle 16 (4/25/2015) until the implementation of Code Case N-532-5 (5/18/2016).

Additionally, previously submitted reports for Refueling Outages 1R14 and 1R15, Section 8.0 "Relief Requests" stated that Relief Request IR-009 had been utilized. This was not correct as this request had not been submitted for this interval.

1R16 was the second refueling outage of the second inspection period within Perry's third 10-year inservice inspection interval. The completion of the Cycle 15 and 1R15 examinations, combined with examinations performed in Cycle 16 and 1R16, will fulfill the required minimum percentage of exams for the second period.

One ASME Form NIS-2 was included in this submittal due to missing the ASME Code Data Report, Form N-2 from the manufacturer during the previous cycle. RRP No. 1B13-060 has been included in this submittal.

One ASME Form NIS-2 from the previous cycle has been included in this package due the form being revised after submittal to the National Board. RRP No. 1B13-058 contained typos and has been corrected.

CONTENTS

1.0 INTRODUCTION

The information provided herein is supplied to document compliance with ASME B&PV Code, Section XI requirements for reporting inservice inspection results for Class 1 and Class 2 pressure retaining components and their supports. Examination results of Class 3 and Augmented components and their associated supports are also included in this report as supplemental information.

This report covers inservice inspection activities performed from Perry Nuclear Power Plant (PNPP)'s return to commercial operation after refueling outage 1R15 (April 25, 2015) through the implementation of Code Case N-532-5 (May 18, 2016).

Included in this report are the following:

- Personnel and equipment listings
- Examination results summaries
- NIS-2/NR-1 Reports
- Other pertinent information

2.0 REFUELING OUTAGE DURATION

The Perry Nuclear Power Plant, Unit 1, was shut down for 1R16 from March 5, 2017 to April 3, 2017. The plant returned to commercial operation on April 3, 2017, at 11:42. This is noted as the time when the generator was synchronized to the grid. This report does not cover any of the activities for the outage. These will be covered in Form OAR-1.

3.0 CODE REQUIREMENTS

The inservice inspections were conducted in accordance with the requirements of ASME B&PV Code, Section XI, Division 1, 2001 Edition through the 2003 Addenda, with Code Cases N-461-1, N-513-3, N-526, N-528-1, N-532-5, N-537, N-552, N-561-2, N-562-2 N-566-2, N-578, N-586-1, N-613-1, N-624, N-648-1, N-652-1, N-658, N-661-2, N-663, N-664, N-666, N-683, N-685, N-695, N-700, N-705, N-716-1, N-735 and N-747.

4.0 INSPECTION

Inspection activities were conducted by Authorized Nuclear Inservice Inspection personnel from The Hartford Steam Boiler Inspection and Insurance Company of Connecticut.

5.0 CERTIFICATIONS

Personnel, equipment, and transducer certifications were maintained as required by code and procedures. This section identifies the personnel and equipment utilized in the performance of inservice examinations during Cycle 16 operations. Certification records for personnel and equipment are kept on site and are available for review.

5.1 Personnel

Nondestructive Examination (NDE) personnel were qualified and certified to perform specific non-destructive examinations in accordance with PNPP or approved vendor procedures as verified by PNPP personnel and the Authorized Nuclear Inservice Inspector.

The following is a listing of personnel responsible for the performance of the NDE activities related to ISI during Cycle 16 operations until the implementation of Code Case N-532-5:

ISI NDE PERSONNEL

Name	UT	PT	MT	VT
Bares, Jeffrey	II*	II	II	II+
Barrett, Jennifer				II+
Blalock, Roy				II+
DiVito, David	II*			II+
Fuller, Richard Jr.	III**	III	III	III
Gorski, Stan				II+
Guerinot, Gregory				II+
Heath, Jacob				II+
Holz, Charles				II+
Kostner, Tobias	II*	II	II	II
Mangle, James				II+
Mick, Andrew	II*			II+
Miranda, Jeffrey				II+
Munson, Dewey	III	III	III	III
Olderman, David				II+
Phelps, Antoinette				II+
Pikus, Raymond				II+
Preisinger, Jon Paul				II+
Pristov, Judith	II*			II+
Quick, Nathan				II+
Rasmussen, Eric				II+
Rocker, Erica				II+
Roth, Scott	II*	II	II	II+
Sayovitz, Steve				II+
Truxall, Justin				II+
Zaharewicz, Kurt				II+

\+ - Limited to VT-2 only
* - Limited to ultrasonic thickness measuring only
** - PDI qualified personnel

5.2 Equipment and Materials

The equipment and materials used during the performance of the non-destructive examinations were certified and/or calibrated in accordance with site procedures or approved vendor procedures and verified by the Site NDE Level III and the Authorized Nuclear Inservice Inspector.

For the reporting period, only visual examinations were performed. As such, no equipment or materials were required.

6.0 CALIBRATION STANDARDS

There were no ultrasonic calibration standards used for ISI related work activities during Cycle 16.

7.0 PROCEDURES

The examination procedures used during Cycle 16 operations were as follows:

Perry NDE Procedures:

PROCEDURE #	Rev.	TITLE
NQI-1042	16 & 17	Visual Examination

8.0 RELIEF REQUESTS

Where it has been determined that conformance with any other examination requirements of ASME Section XI is impractical, PNPP has requested relief from the examination requirements.

The following listing summarizes all the relief requests that have been submitted and approved for PNPP's third 10-year inspection interval:

RR NO/REV	SYSTEM	TYPE RELIEF	CATEG	ITEM NO
IR-013 R-2	High Pressure Core Spray Low Pressure Core Spray Residual Heat Removal	No Exams	C-G	C6.10
IR-027 R-2	Standby & HPCS Diesel Fuel Oil	Alternative Exams	D-A	D1.10
IR-030 R-1	Reactor Pressure Vessel Circumferential Welds	No Exams	B-A	B1.11
IR-043 R-2	Reactor Water Cleanup Residual Heat Removal Reactor Core Isolation Cooling High Pressure Core Spray Low Pressure Core Spray	No Exams	B-M-1	B12.30 B12.40
IR-049 R-1	Class 1 Piping	Alternate Examination Population, Class 1 Risk-Informed application	B-F B-J	B5.10 B5.20 B5.30 B9.11 B9.21 B9.31 B9.32 B9.40
IR-054 R-1	Class 1 Piping	Alternate Examination Population	B-D	B3.90 B3.100
IR-056 R-1	Reactor Vessel	Alternate Examination	B-N-1 B-N-2	B13.10 B13.40
IR-058 R-0	Reactor Vessel	Impracticality	F-A	F1.40
PT-001 R-2	Various non-isolable (from the RPV Boundary) Class 2 Components	Alternate System and Inservice Tests	C-H	C7.10

9.0 SCHEDULE CHANGES

No schedule changes were made during the period covered by this report.

10.0 EXAMINATION SUMMARY RESULTS

1R16 was the fourth refueling outage of Perry's third 10-Year Inservice Inspection Interval and the second of two outages in the second inspection period. Not including pressure testing VT-2 exams that are completed every period, Cycle 15 and 1R15 account for approximately half of the ASME Section XI Code required minimum exams to be completed by the end of the second period, or 1R16.

Cycle 16 and 1R16 examinations resulted in a complete and acceptable program in that all indications were evaluated for acceptance in accordance with ASME Section XI, IWA-3000, and all corrective measures or evaluations were completed.

From the end of 1R15 through the implementation of Code Case N-532-5, only VT-2 examinations as part of system leakage tests or Repair/Replacement activities occurred. As such, no listing of examinations is included with this report.

11.0 NIS-2/NR-1

Repairs, replacements and modifications are carried out in accordance with PNPP's Nuclear Repair & Repair (non-nuclear) Manual, which meets regulatory requirements and quality standards. Compliance of the work is delineated on NIS-2/NR-1 forms. Copies of the NIS-2/NR-1 forms are contained in Appendix "B" and the corresponding starting page numbers are provided in the table below.

The following is a listing of NIS-2/NR-1 forms applicable to this report (Class 1 and 2 only) which have been completed since PNPP's last summary report through the implementation of Code Case N-532-5:

NR-1/NIS-2 FORMS

RRP NO.	FLOC/MPL NO.	DESCRIPTION/COMMENTS	CLASS	PAGE
Reactor and Internals (1B13) System Cycle 16:				
1B13-058	1B13-D0001	Replaced 2 LPRM dry tubes and 4 SRM dry tubes	1	9
1B13-060	1B13-D0008	Replaced One Control Rod Drive Mechanism (CRDM) and replaced 1" cap screws (8 total)	1	19
Reactor Core Isolation Cooling (1E51) System Cycle 15 & 1R15 Reports:				
1E51-167	1E51-H2074	Replaced PSA 1/4 snubber with new	2	24

APPENDIX A

"CYCLE 16 & 1R16 NIS-2/NR-1 FORMS"

INSERVICE INSPECTION SUMMARY REPORT

FOR

PERRY NUCLEAR POWER PLANT

(PNPP)

UNIT 1

1B13-058

NIS-2/NR-1 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As required by the Provisions of the ASME Code Section XI

NOP-CC-5703-04 Rev. 01

1. Owner: FirstEnergy Nuclear Generation, LLC — Date 12/29/2015
   76 South Main Street, Akron OH 44308 — Sheet 1 of 5

2. Plant: Perry Nuclear Power Plant (PNPP) — Unit ONE
   10 Center Road, Perry, Ohio 44081 — 200261110 (Repair Org. P.O. No., etc.)

3. Work Performed By: FirstEnergy Nuclear Operating Company PNPP — Type Code Symbol Stamp NR
   10 Center Road, Perry, Ohio 44081 — Authorization No. 33
   Expiration Date 9-28-2017

4. Identification of System: PY-1B13, REACTOR AND INTERNALS

5. (a) Applicable Construction Code: ASME SECTION III CLASS 1 (NAME/SECTION/DIVISION/CLASS), 1971 Edition
   WINTER 1972 Addenda Code Case(s) * 1332-6,1620,1557-1,1141-1

   (b) Construction Code used for repairs, modifications, or replacements: 1974 Edition / W/75 Addenda / * Code Case(s)

   (c) ASME Code Section XI applicable for Inservice Inspection: 2001 Edition / 2003 Addenda / N/A Code Case(s)

   (d) Applicable Edition of Section XI Utilized for Repairs, Modification, or Replacements:
   2001 EDITION 2003 Addenda N/A Code Case(s)

   (e) Design Responsibilities FENOC

6. Identification of Components Repaired, or Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	Nat. Board No.	Other ID.	Year Built	Repair, Replacement	ASME Code Stamped (Yes or No)
REACTOR VESSEL	CBI NUCLEAR COMPANY	T49	15	N/A	1975	REPLACEMENT	YES

7. Description of Work: PY-1B13D0001. REPLACED REACTOR VESSEL DRY TUBES AS DETAILED IN THE REMARKS SECTION.

8. Test Conducted: Hydrostatic- ☐ Pneumatic- ☐ Nominal Operating Pressure- ☒ Other- ☐
   Pressure 1037 psi Test Temperature 118 degrees F Code Case(s) N/A

NIS-2/NR-1 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As required by the Provisions of the ASME Code Section XI

NOP-CC-5703-04 Rev. 01

9. Remarks: REPLACED LPRM DRY TUBES 08-41 WITH S/N 14I021LZ AND 08-49 WITH S/N 04S85851. REPLACED SRM DRY TUBES 16-21 WITH S/N 04S84952, 16-45 WITH S/N 15B0019K, 40-21 WITH S/N 15B0019L, AND 40-45 WITH S/N 15B0019J.

NO NAMEPLATE/STAMPING PERFORMED DUE TO THE INTERFACE CONTROLS OF PART 3 SECTION 1.8.6 BEING IN EFFECT AND JURISDICTIONAL AUTHORITY CONCURRENCE HAVING BEEN RECEIVED.

Note: Attach all applicable Manufacturer's Data Reports. Supplemental sheets such as lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 of this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded on the front of this form.

CERTIFICATE OF COMPLIANCE

I, TOBIAS J KOSTNER, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the items described above conforms to Section XI of the ASME Code and to the National Board Inspection Code "NR" rules.

National Board Certificate of Authorization No. 33 to use the "NR stamp expires 28 SEPT, 20 17

Date 12/29, 20 15 Signed FENOC-PNPP (name of repair organization) [signature] (authorized representative) SR. QUALITY TECH (title)

CERTIFICATE OF INSPECTION/INSERVICE INSPECTION

I, THOMAS G. LAPS, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of OHIO and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut have inspected the repair, modification or replacement described in this report on DEC. 30, 20 15 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the ASME Code and the National Board Inspection Code "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

Date 12/30, 20 15 Signed [signature] (inspector) Commissions NB 9330 N I A OHIO COMM. (National Board (include endorsements), and jurisdiction, and no.)

PRODUCTION ORDER NUMBER: 19739871

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

Pg. 1 of 2

1. Manufactured and certified by GE Reuter-Stokes, Inc., 8499 Darrow Road, Twinsburg, Ohio 44087
(name and address of NPT Certificate Holder)
2. Manufactured for First Energy Corp P.O. Box 6100 Johnstown, PA 15907
(name and address of Purchaser)
3. Location of installation Perry Nuclear Power Plant 10 Center Road Perry, OH 44081
(name and address)
4. Type: RS-E5-1210-201 (drawing no.) N/A (mat'l spec. no.) N/A (tensile strength) N/A (CRN) 2014 (year built)
5. ASME Code, Section III, Division 1: 1974 (edition) Winter 1974 (addenda date) 1 (class) N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Certified Design Specification CDS-C-272A8152-1 Rev. 0
Certified Design Report CDR-C-5253-23 Rev. -
On File at GE Reuter-Stokes, Inc.
8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 14I021LZ	N/A
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(38)	
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(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 1250 PSIG psi. Temp. Vessel 575°F. Seal 300°F Hydro test pressure 1975 PSIG (when applicable) at temp. 71°F

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(07/10)

PRODUCTION ORDER NUMBER: 19739871

FORM N-2 (Back - Pg. 2 of 2)

Certificate Holder's Serial Nos. N/A through N/A

CERTIFICATION OF DESIGN

Design specifications certified by Bill A. Balazs (when applicable) P.E. State CA Reg. no. MF348

Design report* certified by Robert Scott Betschman (when applicable) P.E. State OH Reg. no. E-56133

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Assemblies conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2703 Expires September 16, 2015

Date November 12, 2014 Name GE Reuter-Stokes, Inc. (NPT Certificate Holder) Signed (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by H.S.B. Global Standards of HARTFORD, CT have inspected these items described in this Data Report on Nov 12, 2014, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11/12/14 Signed (Authorized Inspector) Commissions 13169 AN OH667 [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

(07/11)

PRODUCTION ORDER NUMBER: 19771917

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

Pg. 1 of 2

1. Manufactured and certified by GE Reuter-Stokes, Inc., 8499 Darrow Road, Twinsburg, Ohio 44087
(name and address of NPT Certificate Holder)
2. Manufactured for Perry First Energy Corp 10 Center Road PNPP TEC, Perry, OH 44081
(name and address of Purchaser)
3. Location of installation Perry First Energy Corp 10 Center Road PNPP TEC, Perry, OH 44081
(name and address)
4. Type: RS-E5-1500-217 (drawing no.) N/A (mat'l spec. no.) N/A (tensile strength) N/A (CRN) 2015 (year built)
5. ASME Code, Section III, Division 1: 1974 (edition) Winter 1974 (addenda date) 1 (class) N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Certified Design Specification CDS-C-5600-7-1 Rev. 0
Certified Design Report CDR-C-5600-79 Rev. -
On File at GE Reuter-Stokes, Inc.
8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1)	15B0019J	N/A
(2)	15B0019K	N/A
(3)	15B0019L	N/A
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
(37)		
(38)		
(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design pressure 1250 PSIG psi. Temp. Vessel 575°F, Seal 300°F Hydro test pressure 1950 PSIG (when applicable) at temp. 71°F

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(07/10)

PRODUCTION ORDER NUMBER: 19771917

FORM N-2 (Back - Pg. 2 of 2)

Certificate Holder's Serial Nos. N/A through N/A

CERTIFICATION OF DESIGN

Design specifications certified by Bill A. Balazs (when applicable) P.E. State CA Reg. no. MF348

Design report* certified by David F. Ryzner (when applicable) P.E. State OH Reg. no. PE-74026

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Assemblies conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2703 Expires September 16, 2015

Date February 28, 2015 Name GE Reuter-Stokes, Inc. (NPT Certificate Holder) Signed (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by H.S.B. Global Standards of HARTFORD, CT have inspected these items described in this Data Report on Feb 28, 2015, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 2/28/15 Signed (Authorized Inspector) Commissions 13169 AN OH 667 [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

(07/11)

WORK ORDER NUMBER: 17916818

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

Pg. 1 of 2

1. Manufactured and certified by GE Reuter-Stokes, Inc., 8499 Darrow Road, Twinsburg, Ohio 44087
(name and address of NPT Certificate Holder)
2. Manufactured for First Energy
(name and address of Purchaser)
3. Location of installation Perry Nuclear Power Plant 10 Center Road Perry, OH 44081
(name and address)
4. Type: RS-E5-1500-217 (drawing no.) N/A (mat'l spec. no.) N/A (tensile strength) N/A (CRN) 2007 (year built)
5. ASME Code, Section III, Division 1: 1974 (edition) Winter 1974 (addenda date) 1 (class) N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Certified Design Specification CDS-C-5600-7-1 Rev. 0
Certified Design Report CDR-C-5600-47 Rev. 0
On File at GE Reuter-Stokes, Inc.
8. Nom. Thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1)	04S84952	N/A
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
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(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
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(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

Design pressure 1250 PSIG psi. Temp. Vessel 575°F. Seal 300°F. Hydro. test pressure 1875 PSIG (when applicable) at temp. 70°F.

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.
Reprint (7/91)

WORK ORDER NUMBER: 17916818

FORM N-2 (Back - Pg. 2 of 2)

Certificate Holder's Serial Nos. N/A through N/A

CERTIFICATION OF DESIGN

Design specifications certified by Bill A. Balazs (when applicable) P.E. State CA Reg. no. MF348

Design report* certified by Ahmed I. Sabet (when applicable) P.E. State NY Reg. no. 071638

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Assemblies conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2703 Expires September 16, 2009

Date 4/5/07 Name GE Reuter-Stokes, Inc. (NPT Certificate Holder) Signed (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OHIO and employed by H.S.B. CT of HARTFORD, CT have inspected these items described in this Data Report on 04-05-2007, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 04-05-2007 Signed (Authorized Inspector) Commissions NB12604ABN OH 387 [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

1B13-058
Sheet 5 of 5

WORK ORDER NUMBER: 13710

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

Pg. 1 of 2

1. Manufactured and certified by GE Reuter-Stokes, Inc., 8499 Darrow Road, Twinsburg, Ohio 44087
(name and address of NPT Certificate Holder)
2. Manufactured for First Energy
(name and address of Purchaser)
3. Location of installation Perry Nuclear Power Plant 10 Center Road Perry, OH 44081
(name and address)
4. Type: RS-E5-1210-201 (drawing no.) N/A (mat'l spec. no.) N/A (tensile strength) N/A (CRN) 2005 (year built)
5. ASME Code, Section III, Division 1: 1974 (edition) Winter 1974 (addenda date) 1 (class) N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Certified Design Specification CDS-C-272A8152-1
Certified Design Report CDR-C-5253-08
On File at GE Reuter-Stokes, Inc.
8. Nom. Thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 04S85851	N/A	(26)	
(2) 04S85852	N/A	(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

. Design pressure 1250 PSIG psi. Temp. Vessel 575°F. Seal 300°F. Hydro. test pressure 1875 PSIG (when applicable) at temp. 70°F.

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet. (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88) This form (600040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

WORK ORDER NUMBER: **13710**

FORM N-2 (Back - Pg. 2 of 2)

Certificate Holder's Serial Nos. N/A through N/A

Reprint (7/91)

CERTIFICATION OF DESIGN

Design specifications certified by Bill A. Balazs (when applicable) P.E. State CA Reg. no. MF348

Design report[a] certified by Ahmed I. Sabet (when applicable) P.E. State NY Reg. no. 071638

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Assemblies conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2703 Expires September 16, 2006

Date 2/17/05 Name GE Reuter-Stokes, Inc. (NPT Certificate Holder) Signed [signature] (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OHIO and employed by H.S.B. CT of HARTFORD, CT have inspected these items described in this Data Report on 2/17/05, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 2/17/05 Signed [signature] (Authorized Inspector) Commissions NB 10802 N, NS Ohio 420 [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

1B13-060

NIS-2/NR-1 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As required by the Provisions of the ASME Code Section XI

NOP-CC-5703-04 Rev. 01

1. Owner: FirstEnergy Nuclear Generation, LLC
   76 South Main Street, Akron OH 44308
   Date 01/18/2016
   Sheet 1 of 3

2. Plant: Perry Nuclear Power Plant (PNPP)
   10 Center Road, Perry, Ohio 44081
   Unit ONE
   200326644 *(Repair Org. P.O. No., etc.)*

3. Work Performed By: FirstEnergy Nuclear Operating Company PNPP
   10 Center Road, Perry, Ohio 44081
   Type Code Symbol Stamp NR
   Authorization No. 33
   Expiration Date 9-28-2017

4. Identification of System: PY-1B13, REACTOR AND INTERNALS

5. (a) Applicable Construction Code: ASME SECTION III CLASS 1 (NAME/SECTION/DIVISION/CLASS), 1974 Edition
   WINTER 1975 Addenda Code Case(s) * 1728,1644-4,N-272

   (b) Construction Code used for repairs, modifications, or replacements: 1974 (Edition) W/75 (Addenda) * (Code Case(s))

   (c) ASME Code Section XI applicable for Inservice Inspection: 2001 (Edition) 2003 (Addenda) N/A (Code Case(s))

   (d) Applicable Edition of Section XI Utilized for Repairs, Modification, or Replacements:
   2001,EDITION 2003 Addenda N/A (Code Case(s))

   (e) Design Responsibilities FENOC

6. Identification of Components Repaired, or Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	Nat. Board No.	Other ID.	Year Built	Repair, Replacement	ASME Code Stamped (Yes or No)
PIPING SYSTEM	GE	1B13	64077	N/A	1984	REPLACEMENT	YES

7. Description of Work: 1B13D0008. REPLACED CONTROL ROD DRIVE CORE LOCATION MECHANISM A-4643 WITH REBUILT CRDM A-4063 AND INSTALLED (8) NEW 1" SA540 CAP SCREWS.

8. Test Conducted: Hydrostatic- ☐ Pneumatic- ☐ Nominal Operating Pressure- ☒ Other- ☐
   Pressure 1038 psi Test Temperature 118 degrees F Code Case(s) N/A

NIS-2/NR-1 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As required by the Provisions of the ASME Code Section XI

NOP-CC-5703-04 Rev. 01

9. Remarks: _____

NO NAMEPLATE/STAMPING PERFORMED DUE TO THE INTERFACE CONTROLS OF PART 3 SECTION 1.8.6 BEING IN EFFECT AND JURISDICTIONAL AUTHORITY CONCURRENCE HAVING BEEN RECEIVED.

Note: Attach all applicable Manufacturer's Data Reports. Supplemental sheets such as lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 of this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded on the front of this form.

CERTIFICATE OF COMPLIANCE

I, TOBIAS J KOSTNER, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the items described above conforms to Section XI of the ASME Code and to the National Board Inspection Code "NR" rules.

National Board Certificate of Authorization No. 33 to use the "NR stamp expires 28 SEPT, 20 17

Date 01/18, 20 16 Signed FENOC-PNPP (name of repair organization) (authorized representative) SR NUC ENG SPEC. (title)

CERTIFICATE OF INSPECTION/INSERVICE INSPECTION

I, THOMAS G. LAPS, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of OHIO and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut have inspected the repair, modification or replacement described in this report on JAN. 20 20 16 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the ASME Code and the National Board Inspection Code "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

Date 01/20, 20 16 Signed Thomas G Laps (inspector) Commissions NB 9330 NIA OHIO COMM. (National Board (include endorsements), and jurisdiction, end no.)

BEST AVAILABLE COPY [signature] D Gruwer for M. DeStefano 1B13-060 Sh 2 of 3

Sheet 1 of 2

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES
As required by the Provisions of the ASME Code Rules, Section III Div. 1

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N.C.
(Name and address of NPT Certificate Holder)

(b) Manufactured for General Electric Company, San Jose, California (NEBG)
(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification-Certificate Holder's Serial No. of Part A6069 Nat'l Bd. No.

(a) Constructed According to Drawing No. 768E334G001 Drawing Prepared by D. L. Paterson

(b) Description of Part Inspected Control Rod Drive, Model 7RDB144DG001

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date W'75, Case No. N207 1361-2, Class 1

3. Remarks: Standard part for use with reactor. Hydrostatically tested at 1820 psi.
(Brief description of service for which component was designed)

Total number of sheets 2.

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.

Date 7/21 19 80 Signed GE NEPD-RMD-QA By [signature]
(NPT Certificate Holder)

Certificate of Authorization Expires June 16, 1981 Certificate of Authorization No. N-1131

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GE, NEPD-RMD-QA, Castle Hayne Rd., Wilmington, N.C. 22A5556, Rev. 1

Stress analysis report on file at GE, NEPD-RMD-QA, Castle Hayne Rd., Wilmington, N.C. 22A4912, Rev. 2

Design specifications certified by B. N. Sridhar Prof. Eng. State Calif. Reg. No. 18345

Stress analysis report certified by B. N. Sridhar Prof. Eng. State Calif. Reg. No. 18345

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 7/21 19 80, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data 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 connected with this inspection.

Date 7/21 19 80

[signature] NC 779, PA WC2L60, OHIO

Inspector's Signature Commissions National Board, State, Province and No.

Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at top of this form.

(10/77) This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FORM N-2 (back)

Items 4–8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness ____ in. Corrosion Allowance ____ in. Dia. ____ ft. ____ in. Length ____ ft. ____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T.[1] _____ R.T. _____ Efficiency _____ %

Girth _____ H.T.[1] _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a)								
(b)								

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)

7. Jacket Closure _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

8. Design pressure[2] 1250 psi at 575 °F Drop Weight _____ Charpy Impact _____ ft-lb at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary, Material _____ Dia. _____ Thickness ____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating, Material _____ Dia. _____ Thickness ____ in. Attachment _____

10. Tubes: Material _____ O.D. ____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11–14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness ____ in. Corrosion Allowance ____ in. Dia. ____ ft. ____ in. Length ____ ft. ____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T.[1] _____ R.T. _____ Efficiency _____ %

Girth _____ H.T.[1] _____ R.T. _____ No. of Courses _____

13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a) Top, bottom, ends								
(b) Channel								

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

14. Design pressure[2] _____ psi at _____ °F Drop Weight _____ Charpy Impact _____ ft-lb at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

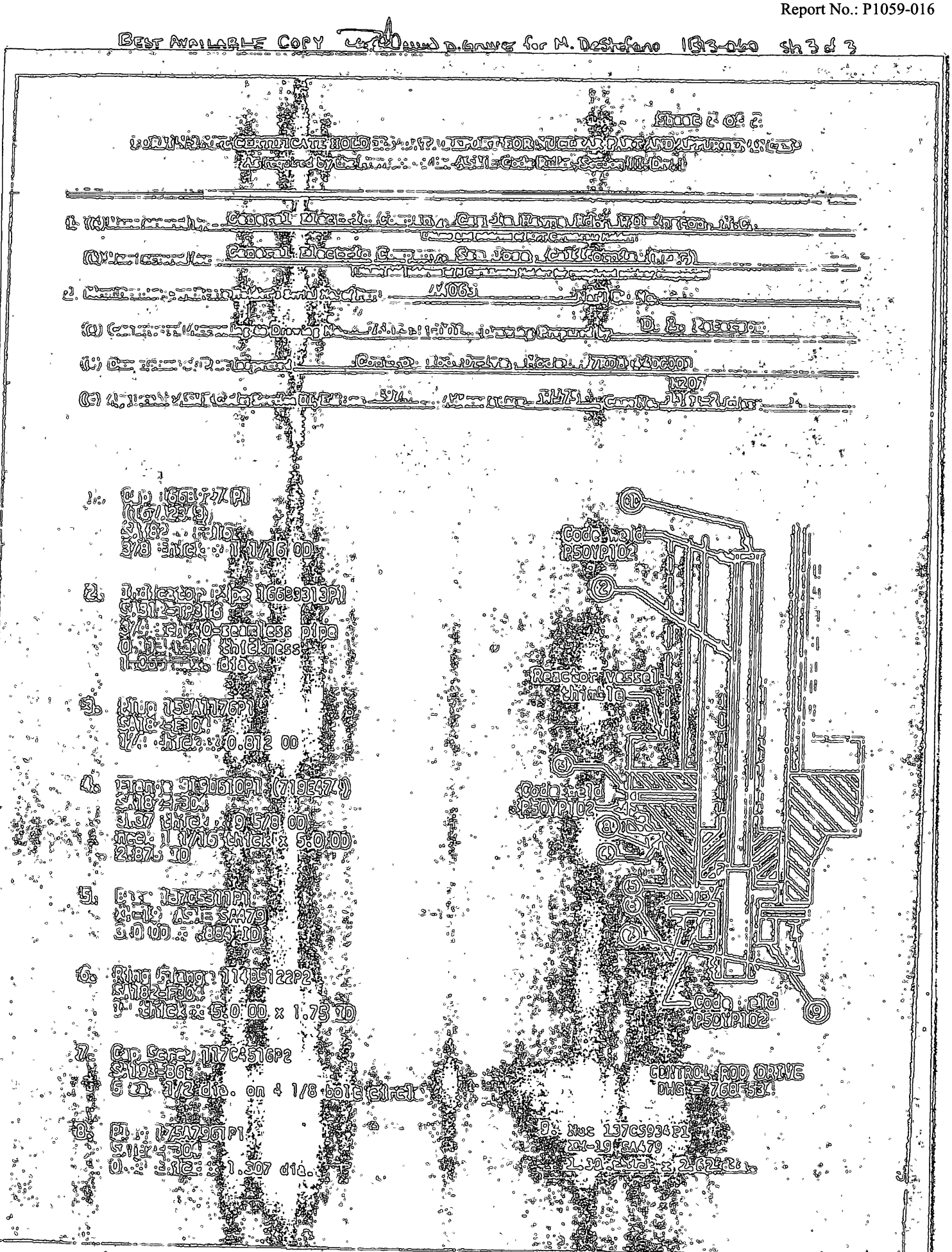
16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ (Yes or No) Lugs _____ (Number) Legs _____ (Number) Other _____ (Describe) Attached _____ (Where & How)

[1] If Postweld Heat-Treated.
[2] List other internal or external pressure with coincident temperature when applicable.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Reactor Vessel
CONTROL ROD DRIVE

1E51-167

NIS-2/NR-1 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As required by the Provisions of the ASME Code Section XI

NOP-CC-5703-04 Rev. 01

1. Owner: FirstEnergy Nuclear Generation, LLC
   76 South Main Street, Akron OH 44308
   Date 10/02/2015
   Sheet 1 of 1

2. Plant: Perry Nuclear Power Plant (PNPP)
   10 Center Road, Perry, Ohio 44081
   Unit ONE
   200389590 (Repair Org. P.O. No., etc.)

3. Work Performed By: FirstEnergy Nuclear Operating Company PNPP
   10 Center Road, Perry, Ohio 44081
   Type Code Symbol Stamp NR
   Authorization No. 33
   Expiration Date 9-28-2017

4. Identification of System: PY-1E51, RX CORE ISOLATION COOLING

5. (a) Applicable Construction Code: ASME SECTION III CLASS 2 (NAME/SECTION/DIVISION/CLASS), 1974 Edition
   WINTER 1975 Addenda Code Case(s) * 1644-5,1728,N-224,N-241,N-242,N-272,N-275, N-413

   (b) Construction Code used for repairs, modifications, or replacements: 1974 (Edition) W/75 (Addenda) * (Code Case(s))

   (c) ASME Code Section XI applicable for Inservice Inspection: 2001 (Edition) 2003 (Addenda) N/A (Code Case(s))

   (d) Applicable Edition of Section XI Utilized for Repairs, Modification, or Replacements:
   2001,EDITION 2003 Addenda N/A (Code Case(s))

   (e) Design Responsibilities FENOC

6. Identification of Components Repaired, or Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	Nat. Board No.	Other ID.	Year Built	Repair, Replacement	ASME Code Stamped (Yes or No)
PIPING SYSTEM	PULLMAN POWER	1E51	84	N/A	1985	REPLACEMENT	YES

7. Description of Work: 1E51H2074, REPLACE EXISTING PSA 1/4" SNUBBER (S/N 34879) WITH NEW PSA 1/4" SNUBBER (S/N 44139).

8. Test Conducted: Hydrostatic- ☐ Pneumatic- ☐ Nominal Operating Pressure- ☐ Other- ☐
   Pressure N/A psi Test Temperature N/A degrees F Code Case(s) N/A

NIS-2/NR-1 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS

As required by the Provisions of the ASME Code Section XI

NOP-CC-5703-04 Rev. 01

9. Remarks: _____

NO NAMEPLATE/STAMPING PERFORMED DUE TO THE INTERFACE CONTROLS OF PART 3 SECTION 1.8.6 BEING IN EFFECT AND JURISDICTIONAL AUTHORITY CONCURRENCE HAVING BEEN RECEIVED.

Note: Attach all applicable Manufacturer's Data Reports. Supplemental sheets such as lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 of this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded on the front of this form.

CERTIFICATE OF COMPLIANCE

I, TOBIAS J KOSTNER, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the items described above conforms to Section XI of the ASME Code and to the National Board Inspection Code "NR" rules.

National Board Certificate of Authorization No. 33 to use the "NR stamp expires 28 SEPT, 20 17

Date 10/2, 20 15 Signed FENOC-PNPP (name of repair organization) [signature] (authorized representative) SR. QUALITY TECH (title)

CERTIFICATE OF INSPECTION/INSERVICE INSPECTION

I, THOMAS G. LAPS, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of OHIO and employed by HSB GLOBAL STDS. of HARTFORD, CONN. have inspected the repair, modification or replacement described in this report on OCT. 2, 20 15 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the ASME Code and the National Board Inspection Code "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

Date 10/2, 20 15 Signed Thomas G. Laps (inspector) Commissions NB 9330 N I A OHIO (National Board (include endorsements), and jurisdiction, and no.)

Enclosure B
L-17-072

Form OAR-1 *Owner's Activity Report*
(Activities performed 5/19/2016 through 4/03/2017)

(2 Pages Follow)

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number P1059-0016

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. 1R16

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

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

Edition and Addenda of Section XI applicable to the inspection plans 2001 Edition through 2003 Addenda

Date and revision of inspection plans Inservice Examination Plan (ISEP) Revision 17 dated 2/5/15 and Revision 18 dated 11/18/16

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans N/A

Code Cases used for inspection and evaluation: The following are permitted by the ISEP: N-461-1, N-513-3, N-526, N-528-1 (if applicable, including cases modified by Case N-532 and later revisions)

N-532-5, N-537, N-552, N-561-2, N-562-2, N-566-2, N-578, N-586-1, N-613-1, N-624, N-648-1, N-652-1, N-658, N-661-2, N-663, N-664, N-665, N-666, N-683, N-685, N-695, N-700, N-705, N-716-1, N-735, N-747

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 1R16 (refueling outage number) Conform to the requirements of Section XI.

Signed Stanley V Gorski Stanley V. Gorski Date 05/23/2017
Owner or Owner's Designee, Title Manager, Tech Services Eng.

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 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.

Thomas H Lupa Commission NB9330 N I A OHIO COMM.
Inspector's Signature (National Board Number and Endorsement)

Date 5/23/17

(06/11)

TABLE 1
Items with Flaws or Relevant Conditions That Required Evaluation for Continued Service

Examination Category and Item Number	Item Description	Evaluation Description
None	N/A	N/A

TABLE 2
Abstract of Repair/Replacement Activities Required for Continued Service

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
1	Pipe Support 1E12-H0739	Replace U-Bolt and nuts	3/23/17	200647792
3	Snubber 1G33-H0147	Replace snubber due to failed function test	3/23/17	200709856
3	Flexible Hose 1B21-D0030C	Replace flexible hose to SRV due to air leakage	3/28/17	200709841
2	Snubber 1E12-H0280	Replace snubber due to failed function test	3/17/17	200646511
1	Bolting hardware 1B13-N8-B	Replaced hardware due to damage during removal	4/1/17	200664434
1	Bolting hardware 1B13-0168-B	Replaced hardware due to failure to perform VT-1 during prior outage	3/15/17	200670394
1	Bolting hardware 1E51-0001-B	Replaced hardware due to damage during removal	4/1/17	200664434
3	Flexible Hose 1E22-D5013A	Replaced damaged flexible hose due to air leakage	9/11/16	200691719
2	Valve 1G33-F0039	Replaced stem and gate	4/3/17	200636659
2	Valve 1P51-F0530	Replace check valve with one with stainless internals	3/29/17	200638222
3	2" Threaded Flange	Replaced flange with new due to air leakage	6/27/16	200640995
3	Valve 1G33-F0032	Replaced valve with new	3/29/17	200559380
2	Support 1E12-H0121	Replaced support bolts higher strength bolts	3/26/17	200708094
3	Flexible Hose 1E22-D5013A	Replaced flanged connection to flexible hose due to air leakage	5/12/16	200682438