



Bentley K. Jones
Director, Nuclear Organizational Effectiveness
Harris Nuclear Plant
5413 Shearon Harris Road
New Hill NC 27562-9300

January 30, 2017
Serial: HNP-17-006

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

10 CFR 50.55a

Shearon Harris Nuclear Power Plant, Unit 1
Docket No. 50-400 / Renewed License No. NPF-63

Subject: Cycle 20 Owner's Activity Report

Ladies and Gentlemen:

In accordance with 10 CFR 50.55a, Duke Energy Progress, LLC, submits the attached Owner's Activity Report for the Shearon Harris Nuclear Power Plant, Unit 1. This report has been prepared in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, 2001 Edition with addenda through 2003 as amended by ASME Code Case N-532-4, Section XI, Division 1. This report is for HNP's Cycle 20 Operations and Refueling Outage 20 of the third 10-year Inservice Inspection interval.

This letter contains no new or revised Regulatory Commitments.

Please address any comments or questions regarding this matter to Jeff Robertson, Regulatory Affairs Manager, at 919-362-3137.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bentley K. Jones", written over a horizontal line.

Bentley K. Jones

Enclosure: Cycle 20 Owner's Activity Report

cc: Mr. R. Patterson, NRC Sr. Resident Inspector, HNP
Ms. M. Barillas, NRC Project Manager, HNP
NRC Regional Administrator, Region II

Shearon Harris Nuclear Power Plant, Unit 1
Docket No. 50-400 / Renewed License No. NPF-63

Cycle 20 Owner's Activity Report
(4 pages plus cover)

Summary

The Shearon Harris Nuclear Power Plant, Unit 1, Third Ten-Year Interval Inservice Inspection Plan complies with 10CFR50.55a(g), which implements, by reference, the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2001 Edition with 2003 Addenda.

This summary report is submitted pursuant to the reporting requirements of ASME Section XI as amended by ASME Code Case N-532-4, "Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission Section XI, Division 1."

Contained within this summary report are the Owner's Activity Report, Form OAR-1, and Tables 1 and 2 of Code Case N-532-4 for Shearon Harris Nuclear Power Plant during Cycle 20 and Refueling Outage 20 (RFO-20). RFO-20 is the second of three outages of the third period in the third inspection interval and includes the Repair/Replacement activities from May 16, 2015, to November 11, 2016.

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number: HNP-17-006 Plant: Harris Nuclear Plant, 5413 Shearon Harris Road, New Hill, NC 27562

Unit No.: I Commercial Service Date: May 2, 1987 Refueling Outage No.: RFO-20

Current Inspection Interval: Third Interval Current Inspection Period: Third Period

Edition and Addenda of Section XI Applicable to the Inspection Plans: 2001 Edition with 2003 Addenda

Date and Revision of Inspection Plans: November 3, 2016 Revision 10

Edition and Addenda of Section XI Applicable to Repair/Replacement Activities, if Different than the Inspection Plans: N/A

Code Cases Used: N-432-1, N-460, N-504-4, N-508-4, N-513-3, N-516-3, N-517-1, N-526, N-528-1, N-532-4, N-552, N-566-2, N-569-1, N-578-1, N-586-1, N-593, N-597-2, N-600, N-613-1, N-624, N-629, N-638-1, N-639, N-641, N-643-2, N-648-1, N-651, N-661-2, N-663, N-685, N-695, N-696, N-697, N-700, N-705, N-706-1, N-722-1, N-729-1, N-751, N-770-1

Certificate of Conformance ISI Inspections

I certify that (a) the statements made in this report are correct; and (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and the completion of RFO-20 conform to the requirements of Section XI.

Signed Angela Staller Angela Staller, ISI Program Manager Date 1/24/17

Certificate of Conformance ISI Repair/Replacement

I certify that (a) the statements made in this report are correct; and (b) the repair/replacement activities and evaluations supporting the completion of RFO-20 conform to the requirements of Section XI.

Signed Adam Zimandy Adam Zimandy, Repair/Replacement PM Date 1/24/17

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 North Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, CT have 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 connected with this inspection.

Nancy Ritchie-Slaughter Commissions NB8447 NC1169 ABN IIS
Inspector's Signature National Board, State, Province, and Endorsements

Date 1/24/2017

Table 1

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

Exam Category and Item Number	Item Description	Evaluation Description
Category F-A, Item F1.20 (R/R Plan number 20117235-01)	Rigid strut support FW-H-0102 found with spherical bearing assembly dislodged with paddle against bracket	The support was evaluated as operable by Engineering Evaluation following discovery. The dislodged spherical bearing will be repaired during RFO-21.

Table 2**Abstract of Repair/Replacement Activities Required for Continued Service**

Class	Component ID	Description of Work	Date Completed	R/R Plan Number
1	1RC-E001:008	M,CONTINGENCY WELD REPAIRS, RV HEAD	11/2/2016	13543169-09/14
1	1RC-E001:008	NON-WELDED REPAIR OF PT INDICATION BY REDUCING INDICATION TO ACCEPTABLE SIZE THROUGH GRINDING ONLY, NOZZLE 23	11/2/2016	13543169-13
2	BD-H-0357	M, BD-H-0357, SNUBBER NEEDS TO BE RE-SET DURING RFO-20	10/24/2016	13519471-01
2	2SW10-37SA-1	M, THROUGH WALL LEAK ON SW FROM AH-2, 2SW10-37SA-1	11/07/2016	20121639-01
3	1AS-345	M, 1AS-345, REMOVE, INSPECT, REINSTALL; REPLACE BOLTING	7/18/2016	13374314-01
3	1AS-344	M, 1AS-344, REMOVE, INSPECT, REINSTALL	08/01/2016	13374315-01
3	CC-H-1446	M, CC-H-1446, SNUBBER NEEDS TO BE RE-SET DURING RFO-20	10/24/2016	13519474-01
3	1SC-BAY6	M, 1SC-BAY6, ESW SCREEN WASH PUMP HAS OIL LEAK	04/06/2016	20010087-01
3	1SW-130	M, EC 71134, REPLACE VALVE 1SW-130 WITH A SS VALVE.	10/27/2016	20019035-01
3	1SW-83	M, 1SW-83, REPLACE CAP SCREWS	07/20/2016	20048488-01
3	1SW-85	M,1SW-85, REPLACE CAP SCREWS	07/21/2016	20048491-01
3	1SW-210	M, 1SW-210, REPLACE CAP SCREWS	08/09/2016	20048492-01
3	1SW-119	M, 1SW-119, REPLACE CAP SCREWS	07/21/2016	20048509-01
3	1SW-70	M, 1SW-70, REPLACE CAP SCREWS	11/10/2016	20048510-01
3	1SW-58	M, 1SW-58, REPLACE CAP SCREWS	11/7/2016	20048511-01
3	1SW-266	M, 1SW-266, REPLACE CAP SCREWS	8/9/2016	20048512-01
3	1SW-116	M, 1SW-116, REPLACE CAP SCREWS	7/21/2016	20048513-01
3	1SW-118	M, 1SW-118, REPLACE CAP SCREWS	11/7/2016	20048514-01
3	1SW-33	M, 1SW-33, REPLACE CAP SCREWS	11/7/2016	20048515-01
3	3SW1.5-167SA-1	M, 3SW1.5-167SA-1, 1 DPM THRUWALL LEAK AT COOLER; REPAIR LEAK	4/1/2016	20069074-01
3	3SC4-8SB-1	3SC4-8SB-1, LEAK REPAIR PIPING REPLACEMENT	6/23/2016	20089243-02