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Serial: RA-19-0268  
July 10, 2019

10 CFR 50.55a

United States Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

MCGUIRE NUCLEAR STATION, UNIT NO.1  
DOCKET NO. 50-369 / RENEWED LICENSE NUMBER NPF-9

**SUBJECT: McGuire Nuclear Station Unit 1, End of Cycle 26 (M1R26) Inservice  
Inspection Summary Report**

Pursuant to the reporting requirements of American Society of Mechanical Engineers (ASME) Section XI, as amended by ASME Code Case N-532-5, Duke Energy hereby submits the Inservice Inspection Summary Report for the McGuire Unit 1 outage M1R26.

This submittal contains no regulatory commitments.

Should you have any questions concerning this letter, or require additional information, please contact Art Zaremba, Manager – Nuclear Fleet Licensing, at 980-373-2062.

Sincerely,

James M. Smith  
Manager – Nuclear Support Services, McGuire Nuclear Station

Enclosure(s):

1. Inservice Inspection Summary Report – Unit 1 McGuire 2019 Refueling Outage M1R26 (4<sup>th</sup> Interval, Outage 5).

cc: (with enclosure)

M. Mahoney, NRC Project Manager, NRR  
L. Dudes, NRC Regional Administrator, Region II  
A. Hutto, NRC Senior Resident Inspector

U.S. Nuclear Regulatory Commission  
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**RA-19-0268**

**Enclosure 1**

**Inservice Inspection Summary Report – Unit 1 McGuire 2019 Refueling Outage  
M1R26 (4<sup>th</sup> Interval, Outage 5)**

CASE  
N-532-5

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number Owner's Activity Report for Refueling Outage M1R26

Plant McGuire Nuclear Station, 12700 Hagers Ferry Rd, Huntersville, NC 28078-9340

Unit No. 1 Commercial service date 12/01/1988 Refueling outage no. M1R26  
(if applicable)

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

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

Edition and Addenda of Section XI applicable to the inspection plans 2007 with 2008 addenda

Data and revision of inspection plans See attachment

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans: Same as above

Code Cases used: The following Code Cases are permitted by the ISI Plans. N-513-3, N-526, N-532-5, N-586-1, N-613-1, N-639, N-643-2, N-648-1, N-705-1, N-716, N-722-1, N-729-4, N-731, N-735, N-747, N-770-2  
(if applicable)

**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 M1R26 conform to the requirements of Section XI.  
(refueling outage number)

Signed Jennifer D. Smith Date 6/13/19

**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 OneCIS Insurance Company of Lynn, MA 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.

Jerome F. Swan Commissions NB 11473, NC 1524  
Inspector's Signature National Board, State, Province, and Endorsements  
I, N, NS, NSI, R

Date 7/1/19

ATTACHMENT

**McGuire Unit 1 End of Cycle 26 Inservice Inspection Report**

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The McGuire Nuclear Station Unit 1 Fourth Ten Year Inservice Inspection (ISI) Plan complies with 10CFR50.55a(g), which implements, by reference, the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2007 Edition with 2008 Addenda.

This summary report is being submitted pursuant to the reporting requirements of ASME Section XI as amended by ASME Code Case N-532-5, "Repair/Replacement Activity Documentation Requirements and Inservice Inspection Summary Report Preparation and Submission Section XI, Division 1".

Contained within this summary report are the form OAR-1 (Owner's Activity Report) and Tables 1 and 2 of Code Case N-532-5 for McGuire Nuclear Station during cycle 26 and Refueling Outage 26 (M1R26). M1R26 is the first outage of the third ISI period in the fourth inspection interval. M1R26 is the second outage of the second Containment period in the third inspection interval. This report includes all Repair/Replacement activities from October 17, 2017 through March 23, 2019, cycle 26.

**Date and Revision of Inservice Inspection Plans:**

**Fourth Interval Inservice Inspection Plans**

The following document comprises the McGuire Nuclear Station 4<sup>th</sup> Interval Inservice Inspection Plan for Unit 1 (Class 1, 2, and 3 Components):

"Fourth Interval Inservice Inspection Plan, McGuire Nuclear Station Unit 1 and Unit 2, General Requirements" – Document "MISI-1462.10-0040-GEN REQ UNIT 1 SECOND AND THIRD PERIODS AND UNIT 2", Rev 1, dated 05/28/2015.

The following document comprises the McGuire Nuclear Station 4<sup>th</sup> Interval Inservice Inspection Pressure Test Plan for Unit 1:

"McGuire Nuclear Station - Fourth Interval Inservice Inspection - Pressure Test Plan", Document MISI-1462.20-0040-PTPLAN, Rev 2, dated 07/25/2018.

**Containment Inservice Inspection Plan**

The following document comprises the McGuire Nuclear Station 3<sup>rd</sup> Interval Containment Inservice Inspection Plan for Unit 1 (Class MC):

"McGuire Nuclear Station - Third Interval Containment Inservice Inspection Plan - Containment - Units 1 & 2", Document #MC-ISIC3-1042-0001, Rev. 7, dated 6/6/2019.

McGuire Nuclear Unit 1  
Form OAR-1 Owner's Activity Report

**Table 1**  
Items with Flaws or Relevant Conditions that Required Evaluation for Continued Service

Examination Category and Item Number	Item Description	Evaluation Description
R-A / R1.17	Pinhole leak on Unit 1 Nuclear Service Water (RN System) pipe coupling/weld (carbon steel to stainless steel) near valve 1RN-984.	Code Case N-513-3 was applied and leakage was monitored until repair could be completed during M1R26. Reference NCR# 2250253.
C-H / C7.10	Dry boric acid leakage found on 1FW-27A packing gland.	NCR# 2264542 was generated and BACC Evaluation was performed.
B-P / B15.10	Dry boric acid leakage from 1A Reactor Coolant Pump seal, found during startup.	NCR# 2268666 was generated and BACC Evaluation was performed.
C-H / C7.10	Dry boric acid deposits found at Seal Table location B3-F3 during startup.	NCR# 2268666 was generated and BACC Evaluation was performed.
R-A / R1.17	Nuclear Service Water Piping examinations performed in accordance with Category R-A, Item No. R1.17 for localized corrosion.	Engineering Evaluation performed under NCR# 2267038.

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

Code Class	Item Description	Description of Work	Date Completed	Repair / Replacement Plan Number
3	Pinhole leak in pipe coupling/weld near valve 1RN-984	Cut out and replace piping and half coupling	4/9/2019	WO# 20303305
2	Pinhole leak in piping downstream of valve 1RV-79A	Cut out and replace elbow upstream of valve 1RV-79A	4/13/2019	WO# 20314866
3	Pinhole leak in weld to valve 1RN-227B	Cut out and replace piping on Class 3 side of valve	4/10/2019	WO# 20319628