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10 CFR 50.55a

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

MCGUIRE NUCLEAR STATION, UNIT NO.2
DOCKET NO. 50-370 / RENEWED LICENSE NUMBER NPF-17

SUBJECT: McGuire Nuclear Station Unit 2, End of Cycle 26 (M2R26) 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 2 outage M2R26.

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 2 McGuire Spring 2020 Refueling Outage M2R26

cc: (with enclosure)

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

RA-19-0401

Enclosure 1
Inservice Inspection Summary Report Unit 2 McGuire Spring 2020 Refueling Outage M2R26
(4 pages including cover page)

CASE
N-532-5

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number: Owner's Activity Report for Refueling Outage M2R26

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

Unit No. 2 (if applicable) Commercial service date 03/01/1984 Refueling outage no. M2R26

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

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

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

Date 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 inspection plans

Code Cases used for inspection and evaluation: The following Code Cases are permitted by the ISI Plans: N-513-4, N-526, N-532-5, N-586-1, N-600, N-613-2, N-639, N-643-2, N-648-2, N-651, N-705, N-706-1, N-712, N-716, N-722-1, N-729-4, N-731, N-735, N-747, N 765, N-770-2, N-771, N-775, N-776, N-786-1, N-798, N-800, N-805, N-823-1, N-825, and N-845. (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 Plar as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of M2R26 (refueling outage number) conform to the requirements of Section XI.

Signed Jim Boughman Digitally signed by JMB9947 (107526) Date: 2020.07.07 07:19:28 -04'00' Jim Boughman, ISI Program Owner Date

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 o connected with this inspection.

Inspector's Signature

Commissions NB9291 N I C, N5 NR R, N5A

National Board, State, Province, and Endorsements

Date 7/7/2020

ATTACHMENT

McGuire Unit 2 End of Cycle 26 Inservice Inspection Report

The McGuire Nuclear Station Unit 2 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 (M2R26). M2R26 is the second outage of the second ISI period in the fourth inspection interval. M2R26 is the second outage of the second Containment period in the third inspection interval. This report includes all Repair/Replacement activities from October 14, 2018 through April 13, 2020, cycle 26.

Date and Revision of Inservice Inspection Plans:

Fourth Interval Inservice Inspection Plans

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

> "Fourth Interval Inservice Inspection Plan - McGuire Nuclear Station Units 1 and Unit 2", Document MISI-1462.10-0040-ISIPLAN, Rev 0, dated 04/30/2020.
>
> "Fourth Ten-Year Interval Inservice Inspection Schedule McGuire Nuclear Station Unit 2", Document MISI-1462.10-0040-Unit 2 Schedule, Rev. 0, dated 4/30/2020.

The following document comprises the McGuire Nuclear Station 4th Interval Inservice Inspection Pressure Test Plan for Unit 2:

> "McGuire Nuclear Station Fourth Inspection Interval Inservice Inspection Pressure Test Plan", Document MISI-1462.20-0040-PTPLAN, Rev 3, dated 12/03/2019.

Containment Inservice Inspection Plan

The following document comprises the McGuire Nuclear Station 3rd Interval Containment Inservice Inspection Plan for Unit 2 (Class MC):

> "McGuire Nuclear Station - Third Interval Containment Inservice Inspection Plan - Containment - Units 1 & 2", Document #MC-ISIC3-1042-0001, Rev. 7, dated 06/06/2019.

Augmented ISI Plan

The following document comprises the McGuire Nuclear Station 4th Interval Augmented Inservice Inspection Plan and Schedule for Unit 2:

> "McGuire Nuclear Station – Fourth Interval Augmented Inservice Inspection Plan and Schedule" Document MISI-1462.10-0040AUGISI-U1&U2, Rev. 5, dated 12/10/2019.

McGuire Nuclear Unit 2
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
B-P / B15.10	Relevant Condition discovered on Reactor Coolant Pump 2D.	Component evaluated per IWA-5251 and the BACC program by Engineering and found to be acceptable - NCR 02324826.
B-P / B15.10	Relevant Condition discovered on valves 2NC-1 and 2NC-2.	Components evaluated per IWB-3142.4 and IWA-5250 by Engineering and found to be acceptable - NCR 02321718.
C-H/C7.10	Relevant Condition discovered on component 2ND0061.	Component evaluated per IWC-3132.3 and IWA-5250 by Engineering and found to be acceptable - NCR 02237999.
C-H/C7.10	Relevant condition found on components 2NSVA0019 and 2A NS Pump (including threaded vent connection).	Components evaluated per IWC-3132.3 and IWA-5250 by Engineering and found to be acceptable - NCR 02308636.
C-H/C7.10	Relevant condition found on component 2NDFE-5240.	Component evaluated per IWC-3132.3 and IWA-5250 by Engineering and found to be acceptable - NCR 02310148.
C-H/C7.10	Relevant condition found on component 2NS-15B	Component evaluated per IWC-3132.3 and IWA-5250 by Engineering and found to be acceptable – NCR 02257932.
R-A/R1.17	The following welds were examined under the Risk Informed ISI Program and determined to have "minimum thickness" readings below 87.5% of nominal pipe wall thickness, which is the code allowable for fabrication tolerance: 2RN6-2, 2RN91-1, 2RN93-1, RN2FW37, RN2F474, RN2F483, RN2F4028, RN2FW194-1, RN2FW194-5, RN2FW194-6, RN2FW194-13, RN2FW196-3V, RN2FW196-14V, RN2FW212-18, RN2FW212-19, RN2FW212-23, RN2FW212-24, RN2FW212-28, RN2F494, Straight pipe scan, adjacent to 2RN5-2. Straight pipe scan, adjacent to 2RN92-1.	Components evaluated by Engineering per NCR 02323211 and found to be acceptable.

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

Code Class	Item Description	Description of Work	Date Completed	Repair / Replacement Plan Number
2	Relevant Condition found on component 2RV-0316 during LRT test (NCR 2235405).	Replaced valve and piping section.	04/06/2020	Work Order 20286040