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August 9, 2017

L-MT-17-059
10 CFR 50.55a(g)

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

Monticello Nuclear Generating Plant
Docket No. 50-263
Renewed Facility Operating License No. DPR-22

2017 Refueling Outage 90-Day Inservice Inspection (ISI) Summary Report

Pursuant to 10 CFR 50.55a(g), Northern States Power Company - a Minnesota corporation (NSPM), doing business as Xcel Energy, hereby submits the enclosed Inservice Inspection (ISI) Summary Report and Form OAR-1 "Owner's Activity Report" for the Monticello Nuclear Generating Plant (MNGP).

The Owner's Activity Report has been prepared in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI Code Case N-532-5, "Repair / Replacement Activity Documentation Requirements and Inservice Inspection Summary Report Preparation and Submission, Section XI, Division 1." This code case is an alternative to the requirements of ASME Boiler and Pressure Vessel Code, Section XI, Articles IWA-4000 and IWA-6000, as authorized by the U. S. Nuclear Regulatory Commission (NRC) through Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 17, August 2014.

The Owner's Activity Report is included in the enclosure and provides an overview of inservice examination results and repair/replacement activities performed during Cycle 28, including the 2017 Refueling Outage (1R28). The activities are applicable to the Fifth 10-year ISI Interval that began on September 1, 2012.

Included with the OAR-1 form are Tables 1 and 2 entitled "Items with Flaws or Relevant Conditions That Required Evaluation for Continued Service" and "Abstract of Repair / Replacement Activities Required for Continued Service", respectively, in accordance with ASME Code Case N-532-5 for Cycle 28.

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Summary of Commitments

There are no new commitments and no revisions to existing commitments in this letter.



Kent Scott for P. Gardner

Peter A. Gardner
Site Vice President, Monticello Nuclear Generating Plant
Northern States Power Company – Minnesota

Enclosure

cc: NRC Regional Administrator, Region III
NRC Project Manager
NRC Resident Inspector

ENCLOSURE

Monticello Nuclear Generating Plant

Owner's Activity Report

Form OAR-1

6 pages follow



Xcel Energy, Inc.
Northern States Power Co. - Minnesota
414 Nicollet Mall
Minneapolis, MN 55401

INSERVICE INSPECTION SUMMARY REPORT

Monticello Nuclear Generating Plant Unit 1
2807 West County Road 75
Monticello, MN 55362

Commercial Service Date: June 30, 1971

Cycle No. 28 Refueling Outage

Outage Dates: April 14, 2017 to May 14, 2017

Inservice Inspection: Interval 5 (September 1, 2012 – May 31, 2022)
Period 2 (September 1, 2015 – August 31, 2019)

Prepared By:

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The Hartford Steam Boiler Inspection and Insurance Company

Report Date: August 7, 2017

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SECTION 1.

SUMMARY

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In accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI and approved alternative requirements of Code Case N-532-5¹, this report provides the following:

- Form OAR-1, Owner's Activity Report
- Table 1, Items with Flaws or Relevant Conditions That Required Evaluation for Continued Service
- Table 2, Abstract of Repair/Replacement Activities Required for Continued Service

This information is applicable to Inservice Inspection (ISI) activities performed during operating Cycle 28 at Monticello Nuclear Generating Plant (MNGP) Unit 1, including the 28th refueling outage. Cycle 28 began May 30, 2015, immediately following completion of the 27th refueling outage.

Examinations and tests for Cycle 28 were scheduled and conducted in accordance with the 5th Interval ISI Plan and were applicable to the 2nd Period of the 5th ISI Interval.

¹ NRC Regulatory Guide 1.147, Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1, Revision 17, August 2014.

SECTION 2.

FORM OAR-1

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FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number MNGP 1R28 OAR-1

Plant Monticello Nuclear Generating Plant, 2807 West County Road 75, Monticello, Minnesota 55362

Unit No. 1 Commercial service date June 30, 1971 Refueling outage no. 1R28
(if applicable)

Current inspection interval 5th Inspection Interval
(1st, 2nd, 3rd, 4th, other)

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

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

Date and revision of inspection plans 5th Interval, Rev. 1, 9/1/2012

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans (same)

Code Cases used for inspection and evaluation: N-513-3, N-613-1, N-702, N-716
(if applicable, including cases modified by Case N-532 and later revisions)

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 1R28 (2017 RFO) conform to the requirements of Section XI.
(refueling outage number)

Signed: [Signature] ISI Program Owner Date August 7, 2017
Owner or Owner's Designee, Title

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 The Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut 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 the 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.

[Signature] Commission NB11863 A.N.I. MN 004028-CO
Inspector's Signature (National Board Number and Endorsements)

Date 8/7/17

TABLE 1
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED
EVALUATION FOR CONTINUED SERVICE

Examination Category and Item Number	Item Description	Evaluation Description
D-B, D1.20 ²	Pressure Retaining Component V-AC-8A cooling coil for High Pressure Coolant Injection (HPCI) Room, Emergency Service Water System, Division 1	Through-wall leakage was evaluated for continued online operation using Code Case N-513-3. Reference CAP AR 01509469 and EC-26677. Coil subsequently replaced during Cycle 28 online maintenance window.
D-B, D1.20 ³	Pressure Retaining Component ESW1-3"-HBD, supply piping for Emergency Filtration Train - Emergency Service Water system, Division 1	ID pit due to MIC with remaining wall thickness less than minimum required wall thickness (not through-wall) was evaluated for continued online operation using N-513-3. Reference CAP AR 01553131 and EC-28387. Piping subsequently replaced in Refueling Outage 28 (RFO-28).
F-A, F1.20	Class 2 Piping Support Support PSH-116, variable spring support for High Pressure Coolant Injection (HPCI) steam supply piping.	Slightly bent rod, identified during a pre-service inspection for an unrelated RFO-28 repair/replacement activity, was determined not to be a service induced condition, and was evaluated by engineering for continued service. Reference CAP AR 01558248.

CAP AR - acronyms for "Corrective Action Program - Action Request"

EC - acronym for "Engineering Change", used to document and accept vendor evaluation(s)

² Flaw (pressure boundary leakage) was identified during normal plant operation, not during performance of a system leakage test (IWD-5222) and the noted Examination Category and Item Number.

³ Flaw (below minimum wall thickness pit on inside diameter (ID) of the piping due to Microbiologically Influenced Corrosion(MIC)) was identified by non-destructive examinations performed for the Service Water – MIC Program, not during performance of a system leakage test (IWD-5222) and the noted Examination Category and Item Number.

SECTION 4.

TABLE 2

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	Emergency Service Water, Division 1 V-AC-8A, HPCI Room cooling coil	Repair (cut/cap) of cooling coil tubing due to through-wall leakage.	12/30/2015	2015-28-012, Rev.1
3	Emergency Service Water, Division 1 V-AC-8A, HPCI Room cooling coil	Replacement of cooling coil due to through-wall leakage. Code Case N-513-3 was implemented prior to replacement.	4/27/2016	2016-28-013
3	Emergency Service Water, Division 1 V-AC-5, Residual Heat Removal A (RHR-A) room cooling coil	Replacement of cooling coil due to through-wall leakage.	8/23/2016	2016-28-025
3	Emergency Service Water, Division 2 V-AC-4, Residual Heat Removal B (RHR-B) room cooling coil	Replacement of cooling coil due to through-wall leakage.	9/24/2016	2016-28-027
3	Emergency Filtration Train - Emergency Service Water, Division 1 ESW1-3"-HBD, supply piping	Replacement of piping due MIC pitting with remaining wall thickness less than required minimum wall. Code Case N-513-3 was implemented prior to replacement.	4/21/2017	2017-28-040
2	Residual Heat Removal A (RHR-A), Division 1 RHR Heat Exchanger E-200A, shell-side inlet nozzle-to-reinforcement ring weld	Two unacceptable, axial linear surface indications on the shell-side inlet nozzle were removed by mechanical means (blending).	4/22/2017	2017-28-043