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L-MT-17-060
License Conditions 2.C.(15)(f) and (g)

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

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

Steam Dryer Visual Inspection Report

The Northern States Power Company, a Minnesota corporation (NSPM), doing business as Xcel Energy, is providing the results of the steam dryer visual inspections conducted during the 2017 Refueling Outage (RFO) to meet Monticello Nuclear Generating Plant (MNGP) Renewed Facility Operating License DPR-22, License Conditions 2.C.(15)(f) and (g), stated below:

Condition f: During the first two scheduled refueling outages after reaching EPU [Extended Power Uprate] conditions, a visual inspection shall be conducted of all accessible, susceptible locations of the steam dryer in accordance with the inspection guidelines provided to the NRC.

Condition g: The results of the visual inspections of the steam dryer shall be reported to the NRC staff within 90 days following startup from the respective refueling outage.

The MNGP steam dryer visual inspection results are provided for the first complete operating cycle at full EPU conditions within the enclosure entitled "RFO 28 Steam Dryer Inspection Summary Report." Future inspections are to be performed following the second full operating cycle at EPU conditions during the 2019 RFO.

Summary of Commitments

This letter makes no new commitments and no revisions to existing commitments.

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Should you have questions regarding this letter, please contact Mr. Richard Loeffler at (763) 295-1247.



Kent Scott for P. Gardner

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

Enclosure

cc: Document Control Desk, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello

ENCLOSURE

**RFO 28 STEAM DRYER INSPECTION SUMMARY REPORT
CONDUCTED DURING THE 2017 REFUELING OUTAGE
FOR
RENEWED FACILITY OPERATING LICENSE DPR-22
LICENSE CONDITIONS 2.C.(15)(f) and (g)
MONTICELLO NUCLEAR GENERATING PLANT (MNGP)**

6 pages follow

RFO 28 Steam Dryer Inspection Summary Report

The Monticello replacement steam dryer (RSD) was inspected in accordance with the inspection recommendations described in LTR-A&SA-12-8, Revision 1, "Westinghouse Recommendations for the Monticello Replacement Steam Dryer Inspections" which was submitted to the NRC in letter L-MT-12-090, dated October 16, 2012. The examinations performed and the results are detailed in Table 1.

Nine (9) weld locations were inaccessible for inspection or no weld was identified. The weld locations that were inaccessible for inspection are italicized in Table 1. No relevant indications were identified on the replacement steam dryer.

The examinations were performed using both VT-3 and VT-1-89 visual inspection techniques. VT-1-89 is a visual examination using VT-1 resolution, distance, and angle of view requirements as described in ASME Section XI, Subparagraph IWA-2211(b), 1989 Edition, No Addenda. VT-1-89 is the recommended technique for steam dryer inspections and should be used to the extent practical per BWRVIP-139-A, "Steam Dryer Inspection and Flaw Evaluation Guidelines." Attachment 1 of L-MT-12-090 notes that the general guidelines for the steam dryer inspections should be based on the general principles found within BWRVIP-139-A.

Table 1: RFO 28 Monticello Replacement Steam Dryer Inspection Results

Weld Name	Weld Description	Exam Type	Exam Result
RSD-INT-GEN	Replacement Steam Dryer Interior	VT-3	No relevant indications.
RSD-OUT-0°-90°	Replacement Steam Dryer Outside 0°-90°	VT-3	No relevant indications.
RSD-OUT-90°-180°	Replacement Steam Dryer Outside 90°-180°	VT-3	No relevant indications.
RSD-OUT-180°-270°	Replacement Steam Dryer Outside 180°-270°	VT-3	No relevant indications.
RSD-OUT-270°-360°	Replacement Steam Dryer Outside 270°-360°	VT-3	No relevant indications.
RSD-SR-VLSI-35°	Support Ring Vessel Lug Interface at 35°	VT-3	No relevant indications.
RSD-SR-VLSI-145°	Support Ring Vessel Lug Interface at 145°	VT-3	No relevant indications.
RSD-SR-VLSI-215°	Support Ring Vessel Lug Interface at 215°	VT-3	No relevant indications.
RSD-SR-VLSI-325°	Support Ring Vessel Lug Interface at 325°	VT-3	No relevant indications.
RSD-LS-35°	Leveling Screw at 35°	VT-3	No relevant indications.
RSD-LS-145°	Leveling Screw at 145°	VT-3	No relevant indications.
RSD-LS-215°	Leveling Screw at 215°	VT-3	No relevant indications.
RSD-LS-325°	Leveling Screw at 325°	VT-3	No relevant indications.
RSD-A1-V2a	Vane Bank A1 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A1-V2b	Vane Bank A1 Left Vertical Weld	VT-1-89	No relevant indications.
RSD-B1-V2a	Vane Bank B1 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-B1-V2b	Vane Bank B1 Left Vertical Weld	VT-1-89	No relevant indications.
RSD-C1-V2a	Vane Bank C1 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-C1-V2b	Vane Bank C1 Left Vertical Weld	VT-1-89	No relevant indications.
RSD-A2-H1	Hood A2 Bottom Horizontal Weld	VT-1-89	No relevant indications.
RSD-A2-H2	Hood A2 Top Horizontal Weld	VT-1-89	No relevant indications.
RSD-A2-V1	Hood A2 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A3-H1	Hood A3 Bottom Horizontal Weld	VT-1-89	No relevant indications.
RSD-A3-H2	Hood A3 Top Horizontal Weld	VT-1-89	No relevant indications.
RSD-A3-V1	Hood A3 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A4-V1	Hood A4 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A6-H1	Hood A6 Bottom Horizontal Weld	VT-1-89	No relevant indications.
RSD-A6-H2	Hood A6 Top Horizontal Weld	VT-1-89	No relevant indications.
RSD-A6-V1	Hood A6 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A7-H1	Hood A7 Bottom Horizontal Weld	VT-1-89	No relevant indications.
RSD-A7-H2	Hood A7 Top Horizontal Weld	VT-1-89	No relevant indications.
RSD-A7-V1	Hood A7 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A8-V1	Hood A8 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-B6-H1	Hood B6 Bottom Horizontal Weld	VT-1-89	No relevant indications.
RSD-B6-H2	Hood B6 Top Horizontal Weld	VT-1-89	No relevant indications.

Table 1: RFO 28 Monticello Replacement Steam Dryer Inspection Results

Weld Name	Weld Description	Exam Type	Exam Result
RSD-B6-V1	Hood B6 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-B7-V1	Hood B7 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-C8-H1	Hood C8 Bottom Horizontal Weld	VT-1-89	No relevant indications.
RSD-C8-H2	Hood C8 Top Horizontal Weld	VT-1-89	No relevant indications.
RSD-C8-V1	Hood C8 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-C1-V1	Hood C1 Right Vertical Weld	VT-1-89	No relevant indications.
RSD-A6-UG-H1	Upper Girder to Vane Bank Weld	VT-1-89	No relevant indications.
RSD-A6-UG-H2	Upper Girder to Vane Bank Weld	VT-1-89	No relevant indications.
RSD-B6-UG-H1	Upper Girder to Vane Bank Weld	VT-1-89	No relevant indications.
RSD-B6-UG-H2	Upper Girder to Vane Bank Weld	VT-1-89	No relevant indications.
RSD-C6-UG-H1	Upper Girder to Vane Bank Weld	VT-1-89	No relevant indications.
RSD-C6-UG-H2	Upper Girder to Vane Bank Weld	VT-1-89	No relevant indications.
RSD-EB-35°	Earthquake Bracket at 35°	VT-3	No relevant indications.
RSD-EB-145°	Earthquake Bracket at 145°	VT-3	No relevant indications.
RSD-EB-215°	Earthquake Bracket at 215°	VT-3	No relevant indications.
RSD-EB-325°	Earthquake Bracket at 325°	VT-3	No relevant indications.
RSD-GRS-SP-V1-0°	Guide Rod Slot to Skirt Panel Weld at 0°	VT-1-89	No relevant indications.
RSD-GRS-SP-V1-180°	Guide Rod Slot to Skirt Panel Weld at 180°	VT-1-89	No relevant indications.
RSD-GRS-SP-V2-0°	Guide Rod Slot to Skirt Panel Weld at 0°	VT-1-89	No relevant indications.
RSD-GRS-SP-V2-180°	Guide Rod Slot to Skirt Panel Weld at 180°	VT-1-89	No relevant indications.
RSD-Hub-PP	Hub to Perforated Plate Weld	VT-1-89	No relevant indications.
RSD-Hub-UG6	Hub to Upper Girder Weld	VT-1-89	No relevant indications.
RSD-Hub-UG7	Hub to Upper Girder Weld	VT-1-89	No relevant indications.
RSD-ID-LG4-ICP-3	Lower Girder to Inner Cover Plate Weld	VT-1-89	No relevant indications
RSD-ID-LG3-ICP-3	Lower Girder to Inner Cover Plate Weld	VT-1-89	No relevant indications
RSD-ID-A1-T-VB	Trough to Vane Bank Weld	VT-1-89	No relevant indications
RSD-ID-B1-T-VB	Trough to Vane Bank Weld	VT-1-89	No relevant indications
RSD-ID-C1-T-VB	Trough to Vane Bank Weld	VT-1-89	No relevant indications
RSD-ID-A1-V1a	Vertical Outer Plate Weld	VT-1-89	Weld is inaccessible for inspection.
RSD-ID-A1-V1b	Vertical Outer Plate Weld	VT-1-89	Weld is inaccessible for inspection.
RSD-ID-B1-V1a	Vertical Outer Plate Weld	VT-1-89	No relevant indications
RSD-ID-B1-V1b	Vertical Outer Plate Weld	VT-1-89	No relevant indications
RSD-ID-C1-V1a	Vertical Outer Plate Weld	VT-1-89	No relevant indications
RSD-ID-C1-V1b	Vertical Outer Plate Weld	VT-1-89	No relevant indications
RSD-ID-A3-LG3-T2	Trough to Lower Girder Weld	VT-1-89	No relevant indications

Table 1: RFO 28 Monticello Replacement Steam Dryer Inspection Results

Weld Name	Weld Description	Exam Type	Exam Result
RSD-ID-A3-LG4-T1	Trough to Lower Girder Weld	VT-1-89	No relevant indications
RSD-ID-B3-LG3-T2	Trough to Lower Girder Weld	VT-1-89	No relevant indications
RSD-ID-B3-LG4-T1	Trough to Lower Girder Weld	VT-1-89	No relevant indications
RSD-ID-C3-LG3-T2	Trough to Lower Girder Weld	VT-1-89	No relevant indications
RSD-ID-C3-LG4-T1	Trough to Lower Girder Weld	VT-1-89	No relevant indications
RSD-ID-B1-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B1-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B2-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B2-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B3-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B3-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B4-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B4-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B5-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B5-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B6-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B6-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B7-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B7-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B8-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-B8-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C1-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C2-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C3-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C4-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C5-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C6-S2	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C7-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-ID-C8-S1	Stiffener Welds	VT-1-89	No relevant indications
RSD-LR-BRKT-35°	Lifting Rod Bracket at 35°	VT-1-89	No relevant indications
RSD-LR-BRKT-145°	Lifting Rod Bracket at 145°	VT-1-89	No relevant indications
RSD-LR-BRKT-215°	Lifting Rod Bracket at 215°	VT-1-89	No relevant indications
RSD-LR-BRKT-325°	Lifting Rod Bracket at 325°	VT-1-89	No relevant indications
RSD-LR-LE-35°	Lifting Eye to Rod Weld at 35°	VT-1-89	No weld identified in this location.
RSD-LR-LE-145°	Lifting Eye to Rod Weld at 145°	VT-1-89	No weld identified in this location.

Table 1: RFO 28 Monticello Replacement Steam Dryer Inspection Results

Weld Name	Weld Description	Exam Type	Exam Result
RSD-LR-LE-215°	Lifting Eye to Rod Weld at 215°	VT-1-89	No weld identified in this location.
RSD-LR-LE-325°	Lifting Eye to Rod Weld at 325°	VT-1-89	No weld identified in this location.
RSD-LR-SR-35°	Lifting Rod to Support Ring Weld at 35°	VT-1-89	No relevant indications
RSD-LR-SR-145°	Lifting Rod to Support Ring Weld at 145°	VT-1-89	No relevant indications
RSD-LR-SR-215°	Lifting Rod to Support Ring Weld at 215°	VT-1-89	No relevant indications
RSD-LR-SR-325°	Lifting Rod to Support Ring Weld at 325°	VT-1-89	No relevant indications
RSD-SFW-0°-90°	Skirt to Flange Weld from 0°-90°	VT-1-89	No relevant indications
RSD-SFW-90°-180°	Skirt to Flange Weld from 90°-180°	VT-1-89	No relevant indications
RSD-SFW-180°-270°	Skirt to Flange Weld from 180°-270°	VT-1-89	No relevant indications
RSD-SFW-270°-360°	Skirt to Flange Weld from 270°-360°	VT-1-89	No relevant indications
RSD-SR-SP-0°-90°	Support Ring to Skirt Panel Weld from 0°-90°	VT-1-89	No relevant indications
RSD-SR-SP-90°-180°	Support Ring to Skirt Panel Weld from 90°-180°	VT-1-89	No relevant indications
RSD-SR-SP-180°-270°	Support Ring to Skirt Panel Weld from 180°-270°	VT-1-89	No relevant indications
RSD-SR-SP-270°-360°	Support Ring to Skirt Panel Weld from 270°-360°	VT-1-89	No relevant indications
RSD-SRCP-35°-90°	Support Ring Cover Plate Weld from 35°-90°	VT-1-89	No relevant indications
RSD-SRCP-90°-145°	Support Ring Cover Plate Weld from 90°-145°	VT-1-89	No relevant indications
RSD-SRCP-215°-270°	Support Ring Cover Plate Weld from 215°-270°	VT-1-89	No relevant indications
RSD-SRCP-270°-325°	Support Ring Cover Plate Weld from 270°-325°	VT-1-89	No relevant indications
RSD-UG6-OB	Upper Girder to Octagonal Beam Weld	VT-1-89	No relevant indications
RSD-UG7-OB	Upper Girder to Octagonal Beam Weld	VT-1-89	No relevant indications
RSD-ID-DC3-V1	Skirt to Drain Channel Weld – Left Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC4-V1	Skirt to Drain Channel Weld – Left Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC7-V1	Skirt to Drain Channel Weld – Left Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC8-V1	Skirt to Drain Channel Weld – Left Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC2-V2	Skirt to Drain Channel Weld – Right Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC3-V2	Skirt to Drain Channel Weld – Right Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC6-V2	Skirt to Drain Channel Weld – Right Side of Weld	VT-1-89	No relevant indications
RSD-ID-DC7-V2	Skirt to Drain Channel Weld – Right Side of Weld	VT-1-89	No relevant indications
RSD-ID-LG3-LR	Lower Girder to Lower Ring Weld	VT-1-89	No relevant indications
RSD-ID-LG4-LR	Lower Girder to Lower Ring Weld	VT-1-89	No relevant indications
RSD-ID-ICP-C3	Inner Cover Plate to Trough Weld	VT-1-89	No relevant indications
RSD-ID-LR-CCP	Lower Ring to Center Cover Plate Weld	VT-1-89	No relevant indications
RSD-ID-LR-ICP-3	Lower Ring to Inner Cover Plate Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC1	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC2	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications

Table 1: RFO 28 Monticello Replacement Steam Dryer Inspection Results

Weld Name	Weld Description	Exam Type	Exam Result
RSD-ID-LG-DC3	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC4	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC5	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC6	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC7	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
RSD-ID-LG-DC8	Lower Girder to Drain Channel Weld	VT-1-89	No relevant indications
<i>RSD-A1-H3</i>	<i>Hood Vane Bank Top Plate to Perforated Plate</i>	<i>VT-1-89</i>	<i>Weld inaccessible for inspection</i>
<i>RSD-B1-H3</i>	<i>Hood Vane Bank Top Plate to Perforated Plate</i>	<i>VT-1-89</i>	<i>Weld inaccessible for inspection</i>
<i>RSD-C1-H3</i>	<i>Hood Vane Bank Top Plate to Perforated Plate</i>	<i>VT-1-89</i>	<i>Weld inaccessible for inspection</i>