

February 29, 2024

L-MT-24-006
10 CFR 54.17

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

Subsequent License Renewal Application Annual Update 1 and Supplement 9

- References:
- 1) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant Docket No. 50-263, Renewal License Number DPR-22 Application for Subsequent Renewal Operating License" dated January 9, 2023, ML23009A353
 - 2) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 1" dated April 3, 2023, ML23094A136
 - 3) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 2" dated June 26, 2023, ML23177A218
 - 4) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 3" dated July 11, 2023, ML23193B026
 - 5) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 4 and Responses to Request for Confirmation of Information - Set 1" dated July 18, 2023, ML23199A154
 - 6) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Power Plant, Subsequent License Renewal Application Response to Request for Additional Information Set 1" dated August 15, 2023, ML23227A175

- 7) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 5" dated August 28, 2023, ML23240A695
- 8) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Response to Request for Additional Information Set 2 and Supplement 6" dated September 5, 2023, ML23248A474
- 9) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Response to Request for Additional Information Set 3" dated September 22, 2023, ML23265A158
- 10) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Response to Request for Confirmation of Information Set 2" dated October 3, 2023, ML23276B433
- 11) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Response to Request for Additional Information Round 2 – Set 1" dated November 9, 2023, ML23313A158
- 12) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 7" dated November 30, 2023, ML23334A147
- 13) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to Document Control Desk, "Monticello Nuclear Generating Plant, Subsequent License Renewal Application Supplement 8" dated January 11, 2024, ML24012A051

In Reference 1, as supplemented by References 2 through 13, Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy hereafter "NSPM", submitted a subsequent license renewal application (SLRA) for the Renewed Facility Operating License for Monticello Nuclear Generating Plant (MNGP).

The License Renewal Rule, 10 CFR 54.21(b), requires NSPM to report changes to the Current Licensing Basis (CLB) that materially affect the contents of the SLRA, including the Updated Safety Analysis Report (USAR) Supplement. These changes are required to be submitted each year following submittal of the license renewal application and at least 3 months before scheduled completion of the NRC review.

In accordance with the License Renewal Rule, NSPM has performed the annual review of MNGPs CLB changes since SLRA submittal to determine whether any sections of the SLRA were materially affected by these changes. As a result of this review, NSPM has identified no material changes to the SLRA due to CLB changes.

NSPM has identified four plant modifications that have minor impacts for aging management review of several systems due to component additions or changes in component material. Resulting updates to the MNGP SLRA are described in the Enclosure to this letter.

In the enclosures, changes are described along with the affected section(s) and page number(s) of the docketed SLRA (Reference 1) where the changes are to apply. For clarity, revisions to the SLRA are provided with deleted text by ~~strike through~~ and inserted text by **bold red underline**.

Summary of Commitments

This letter makes no new commitments and no revisions to existing commitments. I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 29th, 2024.


Shawn Hafen
Site Vice President, Monticello Nuclear Generating Plant
Northern States Power Company – Minnesota

Enclosure (1)

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello, USNRC
Minnesota Department of Commerce

Enclosure 01

Component Material Clarifications

Component Material Clarifications

Provide Clarifications to Various Components Replaced During Annual Report Review Period.

Affected SLRA Sections: Tables 2.3.3-11 and 2.3.4-6, Section 3.3.2.1.11, Tables 3.3.2-5, 3.3.2-11, 3.3.2-13, and 3.4.2-6

SLRA Page Numbers: 2.3-50, 2.3-81, 3.3-13, 3.3-14, 3.3-122, 3.3-123, 3.3-215, 3.3-216, 3.3-217, 3.3-233, 3.3-255, 3.3-256, 3.3-257, 3.4-104, and 3.4-105

Description of Change:

During a review of plant modifications, changes to in-scope and addition of new components were identified:

New components were installed in the Demineralized Water System. The new instrument valves, calibration taps, and associated fittings for the pressure indicators are brass (copper alloy with greater than 15% zinc), galvanized and stainless steel in a raw water environment. SLRA Table 3.3.2-5 is being updated to address the changes.

New components were installed in the Heating and Ventilation System. The Reactor Building Chillers were replaced. The original chiller tube side components consisted of copper alloy with greater than 15% zinc. The replacement chiller condenser is a shell and tube heat exchanger with a carbon steel shell and epoxy coated heads and tube sheets. The replacement chiller evaporator is a stainless steel brazed plate heat exchanger. Both the evaporator and condenser inlet headers are stainless steel. The material used to braze the plates together is copper alloy with 15% zinc or less. SLRA Section 3.3.2.1.11, Tables 2.3.3-11 and 3.3.2-11 are being revised to reflect the changes in components, intended function, and material.

It was identified that the Condensate Pump Area Sump Pump's casing material was changed from gray cast iron to stainless steel. The replaced pump casing provides a leakage boundary function and is being added to SLRA Table 3.3.2-13.

The modification review identified that the Heat Exchanger (Isophase Bus Cooler) Tube Side Components originally consisted of copper alloy with 15% zinc or less. A modification replaced the E-17A heat exchanger tube side components with stainless steel. These changes are being added to SLRA Tables 2.3.4-6 and 3.4.2-6. Additionally, it was identified that the Heat Exchanger (Isophase Bus Cooler) is a cooling coil within the isophase bus ducting. The leakage boundary function is thus at the cooling coil tubes and the shell side components do not exist. The component type "Heat Exchanger (Isophase Bus Cooler) Shell Side Components" are replaced with "Heat Exchanger (Isophase Bus Cooler) Tubes" with a leakage boundary intended function and material of copper alloy with 15% zinc or less.

SLRA Table 2.3.3-11 on page 2.3-50 is revised as follows:

**Table 2.3.3-11
Heating and Ventilation System Components Subject to Aging Management Review**

Component Type	Component Intended Function(s)
<u>Chillers (Reactor Building Chiller Condenser) Shell Side Components</u>	<u>Leakage Boundary</u>
Chillers (Reactor Building Chiller Condenser) Tube Side Components	Leakage Boundary
Chillers (Reactor Building Chiller Evaporator) Shell Side Components <u>Brazed Plate Heat Exchanger, Plates</u>	Leakage Boundary
<u>Chillers (Reactor Building Chiller Evaporator) Brazed Plate Heat Exchanger, Brazing</u>	<u>Leakage Boundary</u>

SLRA Table 2.3.4-6 on page 2.3-81 is revised as follows:

**Table 2.3.4-6
Turbine Generator System Components Subject to Aging Management Review**

Component Type	Component Intended Function(s)
Heat Exchanger (Isophase Bus Cooler) Shell Side Components	Leakage Boundary
<u>Heat Exchanger (Isophase Bus Cooler) Tubes</u>	<u>Leakage Boundary</u>
Heat Exchanger (Isophase Bus Cooler <u>E-17A</u>) Tube Side Components	Leakage Boundary
<u>Heat Exchanger (Isophase Bus Cooler E-17B) Tube Side Components</u>	<u>Leakage Boundary</u>

SLRA Section 3.3.2.1.11 on page 3.3-13 and 3.3-14 is revised as follows:

Materials

The materials of construction for the HTV System components are:

- Carbon and Low Alloy Steel Bolting
- Carbon Steel
- **Carbon Steel (with Internal Coating)**
- Copper Alloy with 15% Zinc or Less
- Copper Alloy with Greater Than 15% Zinc
- Glass
- Gray Cast Iron
- Stainless Steel
- Stainless Steel Bolting

Aging Effects Requiring Management

The following aging effects associated with the HTV System require management:

- Cracking
- Flow Blockage
- Long-Term Loss of Material
- **Loss of Coating or Liner Integrity**
- Loss of Material
- Loss of Preload
- Reduction of Heat Transfer

Aging Management Programs

The following AMPs manage the aging effects for the HTV System components:

- Bolting Integrity ([B.2.3.10](#))
- Closed Treated Water Systems ([B.2.3.12](#))
- External Surfaces Monitoring of Mechanical Components ([B.2.3.23](#))
- Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components ([B.2.3.24](#))
- **Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks (B.2.3.28)**
- One-Time Inspection ([B.2.3.20](#))
- Open-Cycle Cooling Water System ([B.2.3.11](#))
- Selective Leaching ([B.2.3.21](#))
- Water Chemistry ([B.2.3.2](#))

SLRA Table 3.3.2-5 on page 3.3-122 is revised as follows:

Table 3.3.2-5: Demineralized Water – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Piping, Piping Components	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc	Air - Indoor Uncontrolled (External)	Cracking	External Surfaces Monitoring of Mechanical Components (B.2.3.23)	VIII.H.S-454	3.4.1-106	A
<u>Piping, Piping Components</u>	<u>Leakage Boundary</u>	<u>Copper Alloy with Greater Than 15% Zinc</u>	<u>Raw Water (Internal)</u>	<u>Loss of Material</u>	<u>Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)</u>	<u>VII.C1.A-727</u>	<u>3.3.1-134</u>	<u>A</u>
<u>Piping, Piping Components</u>	<u>Leakage Boundary</u>	<u>Copper Alloy with Greater Than 15% Zinc</u>	<u>Raw Water (Internal)</u>	<u>Loss of Material</u>	<u>Selective Leaching (B.2.3.21)</u>	<u>VII.C1.A-47</u>	<u>3.3.1-072</u>	<u>A</u>

SLRA Table 3.3.2-5 on page 3.3-123 is revised as follows:

Table 3.3.2-5: Demineralized Water – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Piping, Piping Components	Leakage Boundary	Elastomer	Treated Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VII.G.AP-76	3.3.1-096	A
Piping, Piping Components	Leakage Boundary	Galvanized Steel	Air - Indoor Uncontrolled (External)	None	None	VII.J.AP-13	3.3.1-116	A
<u>Piping, Piping Components</u>	<u>Leakage Boundary</u>	<u>Galvanized Steel</u>	<u>Raw Water (Internal)</u>	<u>Loss of Material</u>	<u>Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)</u>	<u>VII.C1.A-727</u>	<u>3.3.1-134</u>	<u>A</u>
<u>Piping, Piping Components</u>	<u>Leakage Boundary</u>	<u>Galvanized Steel</u>	<u>Raw Water (Internal)</u>	<u>Flow Blockage</u>	<u>Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)</u>	<u>VII.C1.A-727</u>	<u>3.3.1-134</u>	<u>A</u>
<u>Piping, Piping Components</u>	<u>Leakage Boundary</u>	<u>Galvanized Steel</u>	<u>Raw Water (Internal)</u>	<u>Long-Term Loss of Material</u>	<u>One-Time Inspection (B.2.3.20)</u>	<u>VII.G.A-532</u>	<u>3.3.1-193</u>	<u>A</u>

SLRA Table 3.3.2-11 on page 3.3-215 is revised as follows:

Table 3.3.2-11: Heating and Ventilation – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Chillers - (Reactor Building Chiller Condenser) Shell Side Components	Leakage Boundary	Carbon Steel (with Internal Coating)	Raw Water (Internal)	Loss of Coating or Liner Integrity	Internal Coating/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks (B.2.3.28)	VII.C1.A-416	3.3.1-138	A
Chillers - (Reactor Building Chiller Condenser) Tube Side Components	Leakage Boundary	Carbon Steel	Air—Indoor Uncontrolled (External) Gas (Internal)	Loss of Material None	External Surfaces Monitoring of Mechanical Components (B.2.3.23) None	VII.I.A-77 VII.J.AP-6	3.3.1-078 121	A-C
Chillers - (Reactor Building Chiller Condenser) Shell Tube Side Components	Leakage Boundary	Carbon Steel	Raw Water (Internal) Gas (Internal)	Long Term Loss of Material None	One Time Inspection (B.2.3.20) None	VII.C1.A-532 VII.J.AP-6	3.3.1-193 121	A-C

SLRA Table 3.3.2-11 on page 3.3-216 is revised as follows:

Table 3.3.2-11: Heating and Ventilation – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Chillers—(Reactor Building Chiller Condenser) Tube Side Components	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc	Gas (External)	None	None	VII.J.AP-9	3.3.1-114	G
Chillers—(Reactor Building Chiller Condenser) Tube Side Components	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc	Raw Water (Internal)	Cracking	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VII.C1.A-473b	3.3.1-160	E, 2
Chillers—(Reactor Building Chiller Condenser) Tube Side Components	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc	Raw Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VII.C1.A-727	3.3.1-134	A
Chillers—(Reactor Building Chiller Condenser) Tube Side Components	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc	Raw Water (Internal)	Loss of Material	Selective Leaching (B.2.3.21)	VII.C1.A-66	3.3.1-072	A

Chillers - (Reactor Building Chiller Evaporator) Shell Side Components Brazed Plate Heat Exchanger, Plates	Leakage Boundary	Carbon Stainless Steel	Air—Indoor Uncontrolled Condensation (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.3.23) One-Time Inspection (B.2.3.20)	VII.I.A-77 761b	3.3.1-078 232	A C
Chillers - (Reactor Building Chiller Evaporator) Brazed Plate Heat Exchanger, Brazing	Leakage Boundary	Copper Alloy with 15% Zinc or Less	Condensation (External)	None	None	VII.J.AP-144	3.3.1-114	C

SLRA Table 3.3.2-11 on page 3.3-217 is revised as follows:

Table 3.3.2-11: Heating and Ventilation – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Chillers - (Reactor Building Chiller Evaporator) Shell-Side Components Brazed Plate Heat Exchanger, Plates	Leakage Boundary	Carbon Stainless Steel	Closed Cycle Cooling Water (Internal)	Loss of Material	Closed Treated Water Systems (B.2.3.12)	VII.F2.AP-189 VII.C2.A-52	3.3.1-046 049	A C
Chillers - (Reactor Building Chiller Evaporator) Shell-Side Components Brazed Plate Heat Exchanger, Plates	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc Stainless Steel	Closed Cycle Cooling Water Condensation (External)	Cracking	Closed Treated Water Systems (B.2.3.12) One-Time Inspection (B.2.3.20)	VII.G2.A-473a VII.I.A-734b	3.3.1-160 205	A C
Chillers - (Reactor Building Chiller Evaporator) Shell-Side Components Brazed Plate Heat Exchanger, Plates	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc Stainless Steel	Closed Cycle Cooling Water (External) Gas (Internal)	Loss of Material None	Closed Treated Water Systems (B.2.3.12) None	VII.F2.AP-199 VII.J.AP-22	3.3.1-046 120	C
Chillers - (Reactor Building Chiller Evaporator) Shell-Side Components Brazed Plate Heat Exchanger, Brazing	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc or Less	Closed Cycle Cooling Water (Ex I nternal)	Loss of Material	Selective Leaching (B.2.3.21) Closed Treated Water Systems (B.2.3.12)	VII.F2.AP-43 VII.C2.AP-199	3.3.1-072 3.3.1-046	C

Chillers - (Reactor Building Chiller Evaporator) Shell-Side Components Brazed Plate Heat Exchanger, Brazing	Leakage Boundary	Copper Alloy with Greater Than 15% Zinc or Less	Gas (Internal)	None	None	VII.J.AP-9	3.3.1-114	C
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SLRA Table 3.3.2-11 on page 3.3-233 is revised as follows:

Table 3.3.2-11: Heating and Ventilation – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Insulated Piping, Piping Components	Leakage Boundary	Carbon Steel	Condensation (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.3.23)	VII.I.A-405a	3.3.1-132	A
Insulated Piping, Piping Components	Leakage Boundary	Stainless Steel	Raw Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VII.C1.A-727	3.3.1-134	A

SLRA Table 3.3.2-13 on pages 3.3-255, 3.3-256, and 3.3-257 is revised as follows:

Table 3.3.2-13: Radwaste Solid and Liquid – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Piping, Piping Components	Structural Integrity (Attached)	Carbon Steel	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.3.23)	VII.I.A-77	3.3.1-078	A
Piping, Piping Components	Structural Integrity (Attached)	Carbon Steel	Waste Water (Internal)	Long-Term Loss of Material	One-Time Inspection (B.2.3.20)	VII.E5.A-785	3.3.1-193	A
Piping, Piping Components	Structural Integrity (Attached)	Carbon Steel	Waste Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VII.E5.AP-281	3.3.1-091	A
Pump Casing (DW Equipment Drain Sump/RB Equipment Drain Sump/ TB Equipment Drain Sump/Condensate Drip Tank/DW Floor Drain Sump/Condensate Pump Area Sump/Condensate Backwash/RB Equipment Drain Tank)	Leakage Boundary	Gray Cast Iron	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.3.23)	VII.I.A-77	3.3.1-078	A

Table 3.3.2-13: Radwaste Solid and Liquid – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Pump Casing (DW Equipment Drain Sump/RB Equipment Drain Sump/ TB Equipment Drain Sump/Condensate Drip Tank/DW Floor Drain Sump/Condensate Pump Area Sump/Condensate Backwash/RB Equipment Drain Tank)	Leakage Boundary	Gray Cast Iron	Waste Water (Internal)	Long-Term Loss of Material	One-Time Inspection (B.2.3.20)	VII.E5.A-785	3.3.1-193	A
Pump Casing (DW Equipment Drain Sump/RB Equipment Drain Sump/ TB Equipment Drain Sump/Condensate Drip Tank/DW Floor Drain Sump/Condensate Pump Area Sump/Condensate Backwash/RB Equipment Drain Tank)	Leakage Boundary	Gray Cast Iron	Waste Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VII.E5.AP-281	3.3.1-091	A

Table 3.3.2-13: Radwaste Solid and Liquid – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Pump Casing (DW Equipment Drain Sump/RB Equipment Drain Sump/ TB Equipment Drain Sump/Condensate Drip Tank/DW Floor Drain Sump/Condensate Pump Area Sump/Condensate Backwash/RB Equipment Drain Tank)	Leakage Boundary	Gray Cast Iron	Waste Water (Internal)	Loss of Material	Selective Leaching (B.2.3.21)	VII.E5.A-547	3.3.1-072	A
<u>Pump Casing (Condensate Pump Area Sump)</u>	<u>Leakage Boundary</u>	<u>Stainless Steel</u>	<u>Air - Indoor Uncontrolled (External)</u>	<u>Cracking</u>	<u>OneTime Inspection (B.2.3.20)</u>	<u>VII.E4.AP-209a</u>	<u>3.3.1-004</u>	<u>A</u>
<u>Pump Casing (Condensate Pump Area Sump)</u>	<u>Leakage Boundary</u>	<u>Stainless Steel</u>	<u>Air - Indoor Uncontrolled (External)</u>	<u>Loss of Material</u>	<u>One-Time Inspection (B.2.3.20)</u>	<u>VII.E4.AP-221a</u>	<u>3.3.1-006</u>	<u>A</u>
<u>Pump Casing (Condensate Pump Area Sump)</u>	<u>Leakage Boundary</u>	<u>Stainless Steel</u>	<u>Waste Water (Internal)</u>	<u>Loss of Material</u>	<u>Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)</u>	<u>VII.E5.AP-278</u>	<u>3.3.1-095</u>	<u>A</u>

SLRA Table 3.4.2-6 on pages 3.4-104 and 3.4-105 is revised as follows:

Table 3.4.2-6: Turbine Generator – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Heat Exchanger (Isophase Bus Cooler) Shell Side Components	Leakage Boundary	Carbon Steel	Air—Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.3.23)	VIII.H.S-29	3.4.1-034	A
Heat Exchanger (Isophase Bus Cooler) Shell Side Components	Leakage Boundary	Carbon Steel	Air—Indoor Uncontrolled (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	V.D2.E-29	3.2.1-044	G
<u>Heat Exchanger (Isophase Bus Cooler) Tubes</u>	<u>Leakage Boundary</u>	<u>Copper Alloy with 15% Zinc or Less</u>	<u>Air - Indoor Uncontrolled (External)</u>	<u>None</u>	<u>None</u>	<u>VIII.I.SP-6</u>	<u>3.4.1-054</u>	<u>C</u>
<u>Heat Exchanger (Isophase Bus Cooler) Tubes</u>	<u>Leakage Boundary</u>	<u>Copper Alloy with 15% Zinc or Less</u>	<u>Raw Water (Internal)</u>	<u>Loss of Material</u>	<u>Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)</u>	<u>VIII.E.S-438</u>	<u>3.4.1-091</u>	<u>A</u>

Table 3.4.2-6: Turbine Generator – Summary of Aging Management Evaluation								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-2191 Item	Table 1 Item	Notes
Heat Exchanger (Isophase Bus Cooler E-17B) Tube Side Components	Leakage Boundary	Copper Alloy with 15% Zinc or Less	Air - Indoor Uncontrolled (External)	None	None	VIII.I.SP-6	3.4.1-054	C
Heat Exchanger (Isophase Bus Cooler E-17B) Tube Side Components	Leakage Boundary	Copper Alloy with 15% Zinc or Less	Raw Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VIII.E.S-438	3.4.1-091	A
Heat Exchanger (Isophase Bus Cooler E-17A) Tube Side Components	Leakage Boundary	Carbon Steel Stainless Steel	Air – Indoor Uncontrolled (External)	Loss of Material Cracking	External Surfaces Monitoring of Mechanical Components (B.2.3.23) One-Time Inspection (B.2.3.20)	VIII.H.S-29 VIII.A.SP-118a	3.4.1-034 3.4.1-002	A C
Heat Exchanger (Isophase Bus Cooler E-17A) Tube Side Components	Leakage Boundary	Carbon Steel Stainless Steel	Raw Water (Internal) Air - Indoor Uncontrolled (External)	Long-Term Loss of Material	One-Time Inspection (B.2.3.20)	VIII.A.S-432 VIII.A.SP-127a	3.4.1-081 3.4.1-003	A C
Heat Exchanger (Isophase Bus Cooler E-17A) Tube Side Components	Leakage Boundary	Carbon Steel Stainless Steel	Raw Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.3.24)	VIII.E.S-438	3.4.1-091	A